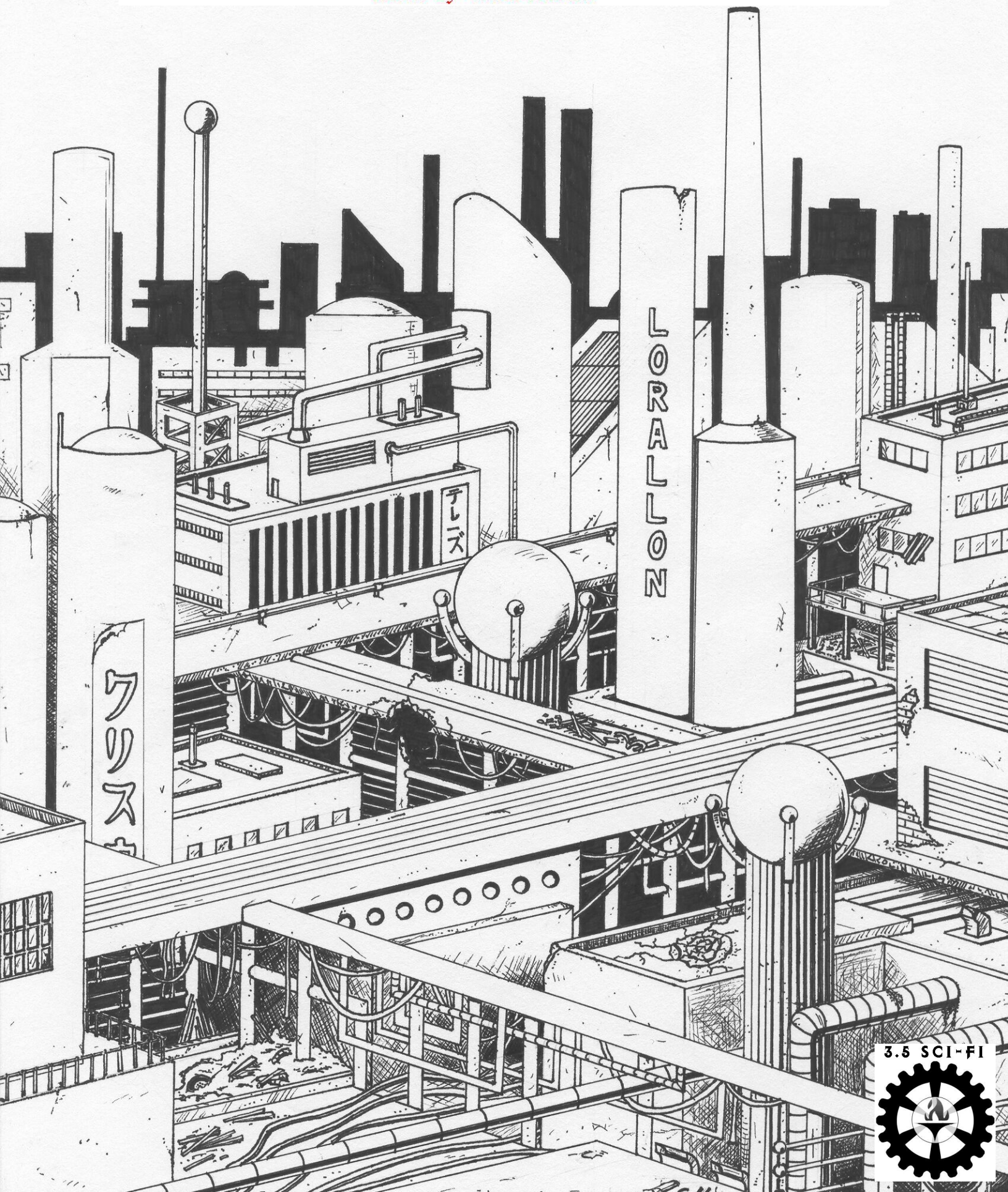
DEAD STARS RULE BOOK

Written by Jay Tyler Barrell
Cover by Chris Wilson



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A special thanks to Daniel Hassell for the idea of the Serkalth, Helizara, and Gorbrasch races. Don't worry Daniel, I'm going to shelve it for writing soon ;)

I would like to thank the following folks from the on-line community for their feedback on the Dead Stars open playtest:

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If I missed anybody, it wasn't intentionally :)

And another "Thanks" to the Alpha-Omega playtest group over at the Dragon club. A more concentrated group of rules-mongering psychos you never did see:

Chris Rensing: "Shilak Slkrklssss" a Drake "psycho"-kinetic.
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Tristian Eifler: "Poe Kreutzer" a gun-toting survivor and scalywag with a heart of gold. It's in his backpack, under the bedroll.

DEDICATION

This book is dedicated to my soul-mate, Adrienne McCarthy.

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INTRODUCTION

It has taken allot of blood and sweat to get to this point, but it FINALLY done! You now have in your possession a realistic sci-fi/horror oriented alternative to the 3rd-edition SRD-based system. It is even complete with enough setting information to run a game in the forthcoming *Dead Stars Campaign Setting*. To make matters even *better*, almost every single word printed after this point is TOTALLY open content! That means that others can make their own worlds and settings based on this material, and publish them, without any problems (at least from me)!

It is my wish that this will eventually lead to an entire sub-industry that produces realistic role-playing material from this rules set. To aid in that endeavor, I even included a chapter devoted to alterations of the system for different eras and genres. I hope you have as much fun playing this, as I had writing it ;)

If all goes well, sometime in summer of 2004 there might even be a printed version of this book...he he he.

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BASICS

This section is mainly for those new to role-playing games. It goes over, in brief detail, several of the terms and things you will find in almost any game. There is some new information here that is indicative to the Dead Stars system, which is shown by labeling the title of the new information with an asterisk "*".

NEEDED MATERIALS

You will need these materials to play Dead Stars.

Friends

All role-playing games, often abbreviated as "RPG"s, are social games. You and a group of your friends get together and have fun by exploring an imaginary world together. This makes them very similar to multi-player computer and video games. Unlike such games, the level of detail and immersion in the game play of an RPG is limited solely by the imaginations of those participating, not by hardware or programming.

Books

Even though an RPG, including Dead Stars, is an exercise in cooperative imagination, some outside direction is usually required. These rule books, of which you are reading right now, are used to make a common set of definitions and conditions for the group. Within the framework they provide, the game can be enchanting and fun. Without common rules, games devolve into anarchy and chaos.

Dice

A big part of the fun from an RPG comes from the uncertainty. You cannot *totally* rely on completing some task, or even know how well you will do, until you try it. To mimic this element of uncertainty, RPGs use dice to generate random values. Dice values are listed in number/d/size format, such as "5d6". This is shorthand for "roll five six-sided dice and add them together". When every you see a number immediately following a "d", you are looking at a shorthand term for the size of a dice. The minimum amount of dice you will need is given below, as well as what they are usually used for in Dead Stars:

d4: Mainly for rolling damage.

d6: Also mainly for rolling damage.

d8: Damage again.

d10: damage, but also for determining percentile (1-100) rolls. Roll it once for the "tens" digit, then again for the "ones" digit. You can also use two dice of different colors, saying which are "tens" and "ones" before you roll. Some d10 dice have an extra "0" after each number, and are used to produce the "tens" digit by default.

d12: Mainly, yet more, damage.

d20: Skill, attack, saves, and ability rolls.

Some dice sizes do not exist normally, these are d2 and d3. These die values are rolled by using a d6. To find the result of a d2 roll a d6, 1-3 are "1", and 4-5 are "2". To find the result of a d3 roll a d6, 1-2 are "1", 3-4 are "2", and 5-6 are "3". "Percentile" (which is abbreviated as "d100" or "d%") can be generated using two d10 dice, as noted above.

Paper

At least one sheet per player, for recording your character on (see below). Extra sheets for notes and maps are also recommended. There is a form called a "Character Sheet", that is used to record a character in a common and easy to use format. Such a sheet is provided at the end of this book.

Pencils

Never write your character's information in ink, use pencil so that you can erase it and make changes as the game progresses.

Imagination

This is a shared imaginary world, an imagination is pretty much a requirement. The more imagination the participants have, and use, the more fun the game will be for all of them.

PLAYING

I talked about the shared imagination experience, this section goes into how to set it up.

Players

All but one of the people in your group are players. Players make individual characters to use to explore the setting of the game. The characters face off against dire threats, experience great vistas, and participate in long term plots with long term goals. As the game progresses from one setting to the next, the characters grow and develop in a manner that their Players find appealing.

Game Master

The one person in the group who is not a player is the Game Master. They do not have a character to play...instead they play *the entire game world!* They control the threats the players encounter, describe the vistas they see, and are the creators of the long-term plots they are faced with. This is in no way an "us vs. him" relationship, the role of the Game Master is to *describe* and *mediate*, not to kill off characters as fast or gruesomely as possible.

Characters

In a role-playing game, there are always three types of characters: Player Characters (PCs), Non-Player characters (NPCs), and Monsters.

Player Characters are made and controlled by the players, each of whom has one. They are the means by which the player gets to experience the shared world, and to influence it.

Non-Player Characters are made by the Game Master, every person the players see or that influences them is an NPC. They are the means by which the Game

Master provides a interaction, villainous or not, between the PCs and the various societies in the setting.

Monsters are threats, things that might harm or kill the PCs and NPCs of the world. It typically falls to the Player Characters to treat with, or defeat, these threats.

* *Common NPCs:* The vast majority of NPCs are not very remarkable. They perform the tiresome work that makes society function. Such people are made like regular Player Characters, only they must subtract 1 from all their Ability Scores (see below). To reflect their lack of particular threat, their Challenge Ratings are also reduced by 1.
* *Notable NPCs:* Not all folk are content to live their lives comfortably, some actually seek to improve their lot. This not only tends to describe some of the motivation for adventuring by Player Characters, but such NPCs can make for great villains or recurring aids to the party. They are made just like Player Characters, but are fully controlled by the Game Master.

Setting

This is a description of the world (or worlds) that the shared game takes place in, as well as it's inhabitants. The Dead Stars Rule Book contains some information for a setting, but not a full setting in it's entirety. The Dead Stars Campaign Setting book, which will hopefully be out summer 2004, will contain far more setting information.

ABILITY SCORES

Six characteristics that define the basic physical and mental ability of any creature, biological or mechanical. A high ability score indicates increasing capability in all things that ability score represents, a lower one indicates increasing ineptitude. The base ability score is 10-11, which has no modifier. the six ability scores are:

Charisma: The being's force of personality and sense of self-identity. It measures how well they can get along with others, and how well they can make others see their points of view, or get them to behave in a manner they desire. Many creatures have no personality to speak of, often robots and other programmed creatures, and are therefore immune to persuasion as well as lack the ability to persuade others. A Charisma of less than 1 means the being is incapable of independent action of any sort, and must be commanded to perform even the simplest tasks.

Constitution: The being's biological health and resiliency. It measures how healthy they are, and how much punishment they can withstand. Robots and other similar beings, even though they are creatures, are not biological and therefore do not have any Constitution. A Constitution of less than 1 means the beings is...dead!

Dexterity: Overall physical coordination and agility. It measures how swift and accurate the being's movements and reflexes are. A Dexterity of less than 1 means the being is paralyzed, incapable of movement.

Intelligence: Mental acuity and ability to reason. it measures the strength of a being's mind, and whether or not it is sentient. Beings with an Intelligence of 2 are capable of some learned responses, but are not sentient. Those with an Intelligence of 1 can be trained to perform a few simple tasks, but are beasts in all respects. Those with an Intelligence of 0 are incapable of any act that is not instinctual. Even though robots have an Intelligence score, they are typically incapable of independent thought and are therefore not sentient.

Strength: The measure of a creature's muscle powers, how much physical force their body can exert. It measures a being's ability to deal damage in melee combat, and their ability to deal with both carrying heavy objects and using heavy weapons. A Strength of less than 1 means the being cannot move at all, and is effectively paralyzed.

Wisdom: A being's ability to perceive their surroundings, and separate themselves in an intellectual capacity from outside forces. It measures their perception and self-control. A being with a Wisdom of less than 1 is insensile, and unable to take any action.

Ability Score Modifier: This is a number applied to all checks that either use that ability score for their basis, or rely heavily upon it. This modifier is gained from the following table:

TABLE A: ABILITY SCORE MODIFIERS

Ability Score	Modifier	Ability Score	Modifier
1	-5	12-13	+1
2-3	-4	14-15	+2
4-5	-3	16-17	+3
6-7	-2	18-19	+4
8-9	-1	20-21	+5
10-11	+0	Every +2 past 20	+1 extra

ONE: CHARACTER CREATION

All characters in Dead Stars have a few things in common. They are all members of a particular race, they have ability scores, they have character classes, and they have gear. Creating a character in Dead Stars requires assigning your importance to these common traits one at a time. The steps required are detailed below.

Using this system, a players gains great customization with his character by being able to prioritize the elements of his character according to what he wants to play. Each character has four categories to choose from: Race, Ability Scores, Skills, and Credits. The player decides which of these is most important (his first priority), then next most important, and so on. By using the table below to cross-index importance with the particular category, he sees what he gets to use for his character.

A high priority in race allows for more powerful, or advantaged, races to be chosen. A high priority in ability scores gives a higher average ability score. And so on.

Races with a Level Adjustment are treated as if they had a Race priority equal to 4 - Level Adjustment, when making a character with them. If such a race has a Level Adjustment after this, then it uses up it's Priority 4 for Race, *and still* has a Level Adjustment!

TABLE 1-1: CHARACTER CREATION TABLE

Priority	Race	Ability Scores	Skills	Credits (Preferred Class)
1	Drake/Gorbrasch	16, 15, 15, 13, 12, 9	(6 + Int Mod) x4	2,000 (2,400)
2	Helizara/Serkalth	16, 15, 14, 12, 11, 8	(4 + Int Mod) x4	1,000 (1,200)
3	Flakam/Orliss	16, 14, 13, 12, 11, 8	(3 + Int Mod) x4	500 (600)
4	Human	16, 14, 12, 12, 10, 8	(2 + Int Mod) x4	250 (300)

Racial Priority Defaults

These values are listed to reflect what 90% of each race has for their entries on Table 1-1. Player characters need not conform to these picks, and often do not. They are useful to Game Masters for making NPCs quickly.

Drake
1 **Race:** Drake
2 **Ability Scores:** 16, 15, 14, 12, 11, 8
4 **Skills:** (2 + Int Mod) x4
3 **Credits:** 500 (600)

Flakam
3 **Race:** Flakam
1 **Ability Scores:** 16, 15, 15, 13, 12, 9
2 **Skills:** (4 + Int Mod) x4
4 **Credits:** 250 (300)

Gorbrasch
1 **Race:** Gorbrasch
3 **Ability Scores:** 16, 14, 13, 12, 11, 8
4 **Skills:** (2 + Int Mod) x4
2 **Credits:** 1,000 (1,200)

Helizara
2 **Race:** Helizara
3 **Ability Scores:** 16, 14, 13, 12, 11, 8
4 **Skills:** (2 + Int Mod) x4
1 **Credits:** 2,000 (2,400)

Human
4 **Race:** Human
3 **Ability Scores:** 16, 14, 13, 12, 11, 8
2 **Skills:** (4 + Int Mod) x4
1 **Credits:** 2,000 (2,400)

Orliss
3 **Race:** Orliss
4 **Ability Scores:** 16, 14, 12, 12, 10, 8
2 **Skills:** (4 + Int Mod) x4
1 **Credits:** 2,000 (2,400)

Serkalth
2 **Race:** Serkalth
1 **Ability Scores:** 16, 15, 15, 13, 12, 9
4 **Skills:** (2 + Int Mod) x4
3 **Credits:** 500 (600)

Choose a Race

Pick the race you wish to play. This step is important for several reasons. The race you are determines what classes you can get levels in the easiest. It also determines what extra class skills all your class levels have. It alters your ability scores, which could make your character more or less suited for certain rolls. Finally, your race provides extra abilities that you might like, but also that can hinder you in many ways.

Any race with DNA can be genetically modified to be superior to other members of the same race, with a chance that more stable versions of their modifications are passed to their decedents. This is detailed in the Gene-Jacking section. Of concern here is that you can use this to create modified races to play. Every Major Advantage gives the race a Level Adjustment of +1, while every two Minor Advantages (rounding up) also gives it a Level Adjustment of +1.

Assign Your Ability Scores

Your priority in ability scores provides you with a set of six numbers. You assign each of these numbers to one of your six ability scores. No ability score can be assigned one number, and each number can only be assigned once. You cannot "split" the numbers between ability scores.

Ability scores provide a modifier to all d20 rolls based on that ability score: skill checks, attack rolls, saving throws, and so on. This modifier equals -1 for every two full points the score is below 11, or +1 for every two full points it is above 10.

Each ability score, and what it represents is listed below:

Strength: How much you can carry, and how hard you can hit. You can comfortably carry up to four times your Strength score in pounds, and you get to add your Strength modifier o all your melee damage rolls!

Dexterity: Your ability to react quickly, as well as your general coordination. You add your Dexterity modifier to your Defensive Class, Reflex save, Initiative, and To-Hit Rolls!

Constitution: Your ability to stay alive when hurt, and to shake off harmful physical effects. Your Constitution score is the basis of your Hit Points, and you add your Constitution modifier to your Fortitude saves!

Intelligence: Your ability to reason and learn. Many skills are based on Intelligence, and a high Intelligence gives you more skill points!

Wisdom: Your ability to perceive your surroundings, instincts, and to make appropriate decisions. This is the basis of many skills, including your checks to avoid being surprised, and you add your Wisdom modifier to your Will save!

Charisma: Your sanity and persuasiveness. This is used to determine the effects of a particularly fearful encounter, and is the basis of all the interpersonal skills!

Pick Your First Character Class Level

Your first character class level is your most important one. It determines how much starting cash you get for gear, and what skills you can spend your racial skill points on. If your first character level is also your race's preferred class, then you get an extra 10 skill points!

Pick Your First Character Level Feats

All characters have one feat for free at first character level. Some races also have an additional feat, such as humans. All of these feats are free, no XP is required to gain them. You can take a feat that has a prerequisite you do not meet yet, but you must meet all of it's prerequisites before you finish leveling up. In this manner, characters can take feats with skill point prerequisites they will be able to meet in the next step.

Assign Your Skill Points

You have a large chunk of skill point from your Skill priority, a few more from your class, and maybe some more from being a member of your race's Preferred Class. Now its time to spend them! Once spent on a skill, skill points become skill ranks in that skill. You use skill points to buy skill ranks at a one-for-one ratio. The maximum number of skill ranks you can have in any skill starts at three. You get to add one to this limit for every class level you have that lists that skill as a class skill. Keep in mind that you add your racial skills to all of your class skill lists, in effect making your racial skills maximum ranks equal to your Character Level +3.

Your total in each skill is equal to your ranks in that skill, plus the ability score modifier for it's key ability score, plus any additional modifiers due to race, feats, other skills, and gear.

You must spend all of your skill points on skill ranks when you take a class level. Any points you cannot spend are lost.

Grab Your Gear

You spend your starting cash, which is determined by your priority in Credits, on gear you have acquired in your past and managed to keep a hold of. At this stage (and only this stage) you can buy ANY gear you qualify for (so you cannot buy descriptor gear unless you have the descriptor). Any cybernetic implants you buy cost only the price of the implant, you do not have to pay for implant surgery or recovery care.

If you are a member of your race's Preferred Class you then add 20% to this amount. For example: an character with Priority 1 in Credits starts with 2,400 credits! These values are listed in parentheses next to the regular amount for other characters.

Base Attack Bonus and To-Hit Bonus

Your To-Hit bonus is based on your Base Attack bonus. To this you add your Dexterity modifier. This is your base to-hit modifier. It is also modified by feats, racial abilities, and gear, but these modified totals only apply to either a type of combat (ranged or melee), or to a particular type of weapon, and need to be recorded separately.

Saving Throws

Your character has three saving throws: Fortitude (Fort), Reflex (Ref), and Will (Will). They each have a base bonus determined by your character class. To this you add an amount determined by your ability score modifier, a different ability affects each saving throw: Fortitude (Constitution), Reflex (Dexterity), and Will (Wisdom). These can also be further affected by racial abilities, feats and gear, but these alterations are often conditional and need to be recorded separately.

Determine Starting Hit Points and Vitality

Your beginning hit points are equal to your Constitution score, plus modifiers for size, race, feats, and your Base Attack bonus. Some Cyberimplants also provide extra Hit Points.

Your starting Vitality equals your Wisdom and Constitution modifiers (less than a total of zero counts as zero), plus the roll for your class's Vitality per Level, race, and feats. Some Cyberimplants can also add to this.

Languages

In addition to the language you learn for being a member of your race, all characters know an additional number of languages equal to their Intelligence Modifier (if Positive). They can choose these languages from all the racial languages.

If a character wishes to learn an additional language later on, there are two ways to do so. If they increase their Intelligence modifier, they can choose an additional language. Otherwise, they can spend time and XP to do so. Every 8-hour day spent learning a language requires an Intelligence DC 15 check. Once the character has

accumulated 50 successful checks they are functionally fluent in that language, but only if they also spend 100 XP.

Characters with a Cerebral Computer can load and run a translation program in order to speak or comprehend a new language.

Name Your Character

Pick a name your character is referred to buy. Slang terms are not recommended, "Slag-Bait" is usually a derogatory term not a means of designating a particular individual! Keep in mind racial and (if necessary) professional influences in this. Example: A human warrior from a space station who is supposed to be a crack shot might be called "Jack Sure-Shot" or "Jack of Heringdell Drift".

Describe Your Character

How tall is your character? How much does he weigh? How old is he? Does he have any distinguishing physical features? Does he carry himself with a particular air?

Determine Your Character's Motivations

What does he want from life, other than to see it again the next day? What are his goals, his desires, and his fears? Does he have any particular loyalties? Does he have any strong hatreds? This all helps you to define your character better, and his place in the galaxy.

CHARACTER LEVEL

Your Character Level is a measure of how powerful your character is. It is equal to the total of all your class levels, including prestige classes, and any Level Adjustments you might have from race. Your gear can also modify this by it's Gear Level, which is only used for purposes of gaining XP. To find out what your Effective Character Level is, average together your Character Level and the highest Gear Level any of your gear has, rounding down. This becomes your Effective Character Level (ECL).

Class Level: The total of all your class levels, including prestige class levels. You can only save up to 1,000 XP, plus 1,000 per Class Level.

Level Adjustment: If you are playing a race with a basic a Level Adjustment higher than +4, or have a Template with any Level Adjustment, then you have a Level Adjustment for this purpose. To determine your actual Level Adjustment, subtract 4 from the Level Adjustment of your race (this number is also your Race priority when making the character), and add on the Level Adjustment from your Template.

Character Level: Your Class Level plus your Level Adjustment.

Gear Level: The highest Gear Level you have from your combat-effective gear. Gear not effective in combat has no Gear Level.

Effective Character Level: The average of your Character Level and your Gear Level, rounding down. A character's Effective Character Level determines many thing about him. His base bargaining rate for his services are equal to his Character Level x100 credits per day, or x1000 credits for a particular job. His Effective Character Level also determines how much XP he earns for defeating enemies, and surviving traps.

RACES

This section details all of the races available for player characters in a Dead Stars campaign.

Ability Scores

Drake	+2 Wisdom, -2 Strength
Flakam	+2 Intelligence, -2 Constitution
Gorbrasch	+2 Dexterity, -2 Strength
Helizara	+2 Wisdom, -2 Intelligence
Human	No adjustments
Orliss	+2 Constitution, -2 Charisma
Serkalth	+2 Strength, +2 Constitution, -4 Dexterity

Preferred Class: Members of this race get a 20% discount when buying levels in this class. Humans must choose their Preferred Class at 1st-level.

Drake

A race of semi-mammalian creatures, from a primitive world where psionic powers are a religion. They have just barely discovered basic physics and chemistry, when their world was invaded by the Necrol. Only timely intervention by the humans of Gaea saved this race from becoming just another Necrol conquest. Now they exist mainly as refugees, trading their psionic services for sanctuary within the remnants of civilization.

The loss of their home world, and most of their population, has left them deeply scarred. They now train themselves in combat psionics and are acquiring technical skills as fast as possible. They have but one goal, the destruction of all the Necrol.

They stand around 3 or 4 feet tall, and weigh around 90 lbs. They are semi-erect, comfortable on two legs or four. Their forelimbs can function as human-dexterous hands. They have two large membranous wings on their backs, that they can fold up into a long backpack looking lump extending from just above their heads to just below the pelvis. Their skin is covered in fine fur, usually colored brown or tan but often died for decoration. They have a head that most resembles an earless wolf with a large cranium. They are warm-blooded, have male and female sexes, but lay eggs like reptiles. They tend to live for around 100 years.

Racial Abilities

* +2 Wisdom, -2 Strength. Their instinct-sharpened senses and determination gives this race greater Wisdom than others, but their small frames and lack of muscle mass results in a penalty to Strength.
* Weight: 80 + 2d8 lbs male, 75 + 2d6 lbs female. Height: 36 + 2d8 inches male, 34 + 2d6 inches female.
* Starting Age: 12 + 1d6 years. Decrepitude: 40 years.
* Base Speed of 20 ft, 30 ft if they use their fore-limbs but then they can't be carrying or holding anything in them.
* Small size.
* A drake's wings allow them to fly at a Speed of 50 with good maneuverability. They cannot use this ability if they are encumbered or wearing armor.
* Drakes can claw for 1d3 damage, or bite for 1d4 damage. Both attacks use the character's full Strength modifier.
* Eons-long psionic devotion has resulted in all drakes having some psionic ability. They can choose one of the following feats for free: Fetching, Psychokinesis, or Telepathy.
* Drakes gain the Scent feat for free, but do not get the Technical Proficiency feat for free. They must choose Technical Proficiency feat with their normal character level feats if they want access to it. This also means that they cannot take levels in the Technician class until they do so, and cannot take Technical Proficiency as a class bonus feat.
* *Preferred Class:* Psionicist.
* *Languages:* All drakes speak drake for free.
* *Racial Skills:* Climb (Str), Craft (Int), Diplomacy (Cha), Listen (Wis), Spot (Wis), and whatever the skill for their psionic feat is.

Flakam

A race of crystalline space-dwelling creatures that have suffered from predation by the Necrol and other races. Unlike other races, they have not been consumed by the machine intelligences, not in the normal sense. Instead they are actively hunted down for what they are: highly advanced crystalline machines. Their bodies are used by the Necrol to produce some of their most advanced computer and drive systems.

To combat this, they have spread into the reaches of the solar system in small groups. Each group is centered around one or more members with the Fetching psionic feat, and often levels in the Star Walker prestige class. Often these groups will ally themselves with other groups of PC races, for safety or mutual gain. In many situations a Flakam group loses it's Fetching members, and ceases to be able to travel the stars. In these situations they will break up into individuals and travel with whoever they can find.

Flakam stand around five feet tall and weigh between 200 and 300 pounds. They are omni pedal and roughly human in shape, except that their "hands" have three fingers and two thumbs and their four "arms" are equidistant around their bodies and also serve as legs. Their heads are nearly featureless socket balls on one side of their spherical bodies two arms, with four eyes placed in pairs one atop the other and no noses. Their senses of hearing, smell, and taste are incorporated into their sense of touch. They speak by vibrating their bodies, with each one having a distinct "voice" depending on their weight and composition. They are glossy and crystalline in appearance, often mixtures of blue, green, white, and red.

Flakam have no known life expectancy, their bodies do not decay or become ill as flesh does. They are asexual, capable of growing a pod on their backs once every ten years. It takes a full year for the pod to mature and fall off, and another year for the infant Flakam inside to finish gestating and emerge. Infant Flakam are their grown height but half weight. They are born as fully developed first level characters, but have half the hit points. They slowly put on body mass over the next two years, at the end of which they are their full body weight, have normal hit points, and can progress to second character level.

Racial Abilities

* +2 Intelligence, -2 Constitution. Flakam can process more information than other races, and do it quicker, but their crystalline structure is fragile and easily disrupted.
* Weight: 180 + 4d20 lbs. Height: 55 + 5d4 inches.
* Starting Age: 1 + 1d20 years. Decrepitude: never.
* Base Speed is 30 ft.
* Medium Size.
* Flakam can alter their body's magnetic fields in order to catch stellar wind and ride it. In micro-gravity this allows them to fly with perfect maneuverability at a Speed of 10 feet. They cannot use this ability in even 0.1g of gravity, or in a radiation shielded structure.
* Flakam do not need to eat or drink, background radiation in space provides them with all the energy they need. Inside the magnetosphere of a planet or a radiation-shielded structure they need 2 Charge of electricity every day in order to function. A Flakam that goes a day without takes a -1 penalty to all Strength based skills and checks. At 10 days they become dormant. Once they recover the lost energy they revive with no ill effects.
* Flakam are largely immune to radiation, feeding off of it like a gourmet meal. In game terms this means that they get Radiation Resistance 20. Enough steak cordon-bleu can choke anybody.
* Flakam evolved in the cold depths of space, and can survive at temperatures up to and including absolute zero. This effectively givens them immunity to all cold-based damage.
* Flakam cannot benefit from any form of medical care, except Flakam-specific nanotech. They also cannot be affected by poisons or biological contaminants.
* *Pressure Immunity:* Flakam suffer no ill effects from atmospheres as high as 4a or as low as hard vacuum.
* *Low-G Natural:* Flakam suffer absolutely no penalties of any sort, not even requiring Freefall skill checks, in environments weaker than 1g gravity.
* *Implant Weakness:* Flakam cannot receive cybernetics or genetic modifications. Their physiology is just too strange.
* *Radiospeech:* Flakam can communicate by simple radio wave transmission. They function as a basic radio-communicator with a Quality equal to 5 + Intelligence modifier, and no encryption ability.
* *Sleep Tolerance:* Flakam only sleep to convert stored radiation into electrical current, and to heal. If provided with direct electrical current, they can go without sleep and not take any Vitality damage for doing so. For Flakam two points of Charge is sufficient to mitigate an hour's worth of sleep. Only one day's worth of sleep can be "paid for" at a time, and this does not allow them to recover Vitality or Hit Points, only actual rest can do that.
* *Vulnerability (High-Frequency Vibration +1d6):* A Flakam's crystalline body is easier to shatter with intense high-frequency vibrations. Vibro-weapons and sonic weapons deal damage, but sound up to canine-frequencies does not. This can be resisted with Damage Reduction.
* Flakam get the Technical Proficiency feat for free.
* *Preferred Class:* Scholar.
* *Languages:* All Flakam speak Flakam for free.
* *Racial Skills:* Astrogation (Int), Knowledge (Int), Spot (Wis).

Gorbrasch

A race of fluid, gel-like beings, the Gorbrasch were born on a world where all creatures, like they, had a fluid, ever-changing appearance. When this world was destroyed by the Necrol, the Gorbrasch had, using slower than light vessels, formed colonies on some fifty other worlds, all like their home, high in heat and water concentration. The Gorbrasch cannot be cyberneticaly implanted, and are thus considered useless by the Necrol, who have determined to simply wipe them out instead of forming any into slaves.

Gorbrasch are, physically, indescribable. They generally weight roughly 200 pounds, but their height and form are almost indeterminate.

Gorbrasch can speak in human-audible ranges by vibrating their body's membrane, which also serves as their sensory organ for all senses except sight. The native Gorbrasch language is actually three-dimensional colored shapes on their skin, which is "written" in organic molecules secreted onto a surface. While only Gorbrasch can "speak" and read their own language without a translator, any creature can read "spoken" Gorbrasch if it takes the time to learn it.

Racial Abilities

* +2 Dexterity, -2 Strength. A Gorbrasch's fluid form, while quite agile, cannot form muscles as hard as a creature with a truly solid state.
* Weight: 170 + 2d20 lbs. Height: 30 + 2d6 inches spherical.
* Starting Age: 5 + 1d8 years. Decrepitude: 60 years.
* Base Speed of 5 feet.
* Medium size.
* Gorbrasch are blind and deaf by default.
* Gorbrasch gain a +4 racial bonus to disguise checks but only when attempting to hide their nature as Gorbrasch. They get no bonus when attempting to look like members of a race with pronounced limbs (such as humanoids) or distinctly non-Gorbrasch physiology (like fins or feathers).
* Gorbrasch have sufficient mass to form up to 6 limbs, which can be of various types. They can interchange these with a full-round action which does not provoke an attack of opportunity.

Each leg a Gorbrasch forms adds +10 feet to his movement, to a maximum of 40 ft. movement rate.

Each sensory organ past two adds a +2 bonus to listen and spot checks, with the initial organ causing them to no longer be blind and deaf, but to have a -5 penalty on all Listen and Spot checks, as well as on ranged attacks.

Each manipulator limb formed acts as a single arm of a medium-sized creature, and past the second provides a +2 bonus to Climb, Disable Device, and Open Locks checks.

Each claw limb formed acts as an arm equipped with a knife for 1d4 damage, and provides a Burrow speed of 5 feet if at least two limbs are formed.

Each air sac formed provides a +2 bonus to swim checks. With 4 air sacs, the Gorbrasch gains a Swim speed of 20 feet.

Each regenerative organ formed provides Fast Healing 1, but costs a Vitality point for every Hit Point healed. This stacks with other regenerative organs. It is a free action to use one or more regenerative organs.

Gorbrasch gain one additional 'limb' for each age category above infant, to a maximum of six once they reach adulthood. Infant Gorbrasch have only three limbs.

* Gorbrasch do not have structurally stable brains, and therefore cannot develop psionics naturally or through genetic engineering.
* Gorbrasch do not have structurally stable physiology of any sort, and thusly cannot use any form of cybernetics.
* *Special Damage Effect Immunity:* Gorbrasch physiology is so generalized that they suffer no Special Damage effects.
* *Fear Resistance:* Gorbrasch do not view other races as objects of empathy, and so they get a +4 bonus to resist fear checks caused by encounters with the dead of other species.
* *Disease Resistance:* Gorbrasch physiology is almost totally mutable, making it hard for many diseases to affect them. They get a +4 bonus to resist any disease that is not targeted specifically at Gorbrasch.
* *Technology Type:* Gorbrasch, provides knowledge of genetic alteration technology and force-shell ionic engines for long-distance travel.
* *Preferred Class:* Gorbrasch must choose a preferred class at first level.
* *Languages:* All Gorbrasch 'speak' the Gorbaschan sign language for free.
* *Racial Skills:* Climb (Str), Craft (Int), Disguise (Cha), Hide (Dex), Listen (Wis), Sense Motive (Wis), and Swim (Str)

Helizara

A race of dog-snouted humanoids with thick, warm, hair covering their bodies, the Helizara seem overly friendly and nice to any who meet them. Their home world had four other sentient races on it, which the Helizara caused to wipe each other out one at a time with their incredible diplomatic skills and pheromones. All their technology is stolen from other races, usually in bargains which only seemed fair at the meeting table.

They stand between 4 and 5 feet tall, and weight up to 150 pounds. Their thick hair varies in color from a deep dark brown to a light pale gray.

Racial Abilities

* +2 Wisdom, -2 Intelligence. Helizara are highly perceptive, but have relied on using others for so long that they have difficulty solving problems for themselves.
* Weight: 130 + 2d10 lbs male and female. Height: 45 + 2d6 inches male, 45 + 2d8 inches female.
* Starting Age: 18 + 1d4 years. Decrepitude: 40 years.
* Base Speed of 30 ft.
* Medium size.
* Helizara generate pheromones, which allow them to manipulate the emotions of anyone within 30 feet, adding a +4 racial bonus on all Diplomacy, Bluff, and Intimidate checks within this area.
* Helizara receive a +3 bonus to Listen and Spot when they take the Awareness feat, instead of +2.
* *Technology Type:* Helizara, encompasses all technology owned by the sentient races of the galaxy who contact the Helizara, which they steal. This equates to the human technology, except that their penalties for dealing with alien technology is halved!
* *Preferred Class:* Rogue
* *Languages:* All Helizara speak Helizaran and one other language for free.
* *Racial Skills:* Bluff (Cha), Climb (Str), Craft (Int), Diplomacy (Cha), Listen (Wis), Sense Motive (Wis), and Spot (Wis)

Human

Humans are the same as in the real world, but with two exceptions. Humans get to live longer thanks to advanced medical care, and they often have increased abilities due to the system they where raised in.

Racial Abilities

* Weight: 130 + 2d20 lbs male, 110 + 2d12 lbs female. Height: 60 + 2d8 inches male, 56 + 2d6 inches female.
* Starting Age: 15 + 1d6 years. Decrepitude: 50 years.
* Humans have an easier time adapting to new things and ways of thinking, making each system's inhabitants markedly different from other systems. They each get the Home System feat for free, in addition to their regular feats.
* Humans get the Technical Proficiency feat for free.
* *Preferred Class:* Player's Choice.
* *Languages:* All Humans speak their system's language for free. The commonly used human languages are English, German, Japanese, and Spanish, as those cultures suffered the least amount of damage during World War III.
* Humans receive a bonus feat at 1st-level.
* *Racial Skills:* Climb (Str), Computer Use (Int), Craft (Int), Jump (Str), Spot (Wis). Humans also receive skill bonuses based on their Home System feat, if it provides any.

Orliss

A race of sentient plants that come in a multitude of forms. The reason for this is their mastery of genetic manipulation. Orliss can tinker with the DNA of a species in the same manner as other races tinker with electronics. They spread through out the stars without the benefits of psionics, launching huge "seed ships" at other stars. They have suffered the most of all the PC races from the Necrol, but until the humans of Gaea came along they did not know it. Without psionics they have no method of faster-than-light travel, and therefore no way of knowing when a colony is attacked. After hitching rides on human ships to previously colonized worlds, and finding only the Necrol, they have started to fight back.

They now form permanent colonies on worlds that other races would find suitable if they where terraformed. They alter their living vessels and buildings to provide facilities for other races to inhabit, entering a kind of symbiosis with them. This is most pronounced with the drakes, who they often share space on their seed ships in order to travel faster. Those that dwell with humans have picked up on their technical know-how, but as of yet none have figured out a way to incorporate psionic ability into their genetic code.

PC Orliss belong to a subspecies that has been created specifically to interact with the other races. They resemble humans with leaves for hair and thin bark for skin. Their "hair" is always deep green and their skin is either light green or tan. They weigh a little more than a human, and stand about as tall.

Racial Abilities

* +2 Constitution, -2 Charisma. Their advanced metabolisms make them more resilient, but their bizarre mindsets make it hard for them to relate to other races.
* Weight: 130 + 2d20 lbs male, 110 + 2d12 lbs female. Height: 60 + 2d8 inches male, 56 + 2d6 inches female.
* Starting Age: 15 + 1d6 years. Decrepitude: 75 years.
* Base Speed is 30 feet.
* Medium Size.
* Orliss are amazingly resilient, gaining the Fast Healing 1 special quality. Use of this ability requires the expenditure of a Vitality point for every Hit Point healed.
* Orliss have low-light vision, due to their extreme photosensitivity.
* Orliss can secrete a sap directly on to a mammalian creature that can heal it for up to their Character Level x Constitution modifier in damage every day. This healing does not have to be all at once, but can be divided up into any number of subjects over the course of the day. This is an extraordinary ability that requires touch and takes a standard action to use.
* Orliss can survive without food, water, or air for up to ten days without ill effects, including in the vacuum of space. This does not mean that they have any particular endurance of radiation however.
* Orliss process CO2 into oxygen and consume waste mater for food. They require only a quarter of a human's water ration. For every two PC Orliss one medium-size or two small-size mammals can have enough oxygen to survive. A single medium-size mammal, or two small-size mammals, provides enough waste matter for two Orliss to survive.
* Orliss do not need a Medical Toolkit to Craft a gene-altering retrovirus. They also do not need a life support tank to make genetic alterations to themselves. While genetically altering themselves, they just plant themselves someplace where they can draw sustenance from the soil, and become comatose until the alteration is completed. The creation of the retrovirus follows normal rules otherwise, and the amount of time it takes to make genetic alterations is not changed. Orliss still suffer from the normal side-effects of genetic engineering, but most take the Gene-Jacked feat to offset them.
* Orliss get the Technical Proficiency feat for free.
* *Technology Type:* Default, the same as Human technology.
* *Technology Type:* Orliss have the ability to create Seed items and living gear, which is grown from seeds. A seed item costs 1% of the regular price, instead of 25%, to Craft and weights 1% of the base item's weight. It takes the regular amount of time to Craft, but all can be done internally and without tools if the final seed would be 1 lb or less. Once the seed is finished, it can be planted and will grow at a rate of the item's Quality in percentage of final weight each day.

Once the seed's weight reaches the final weight of the item, it is a living item. Living Items weight twice as much as their normal counterparts. Living Items require one gallon of water per week for every 100 lbs of weight to avoid losing Constitution (at the rate of 1d6 points of permanent damage every time they miss a water ration). Living Items Heal as if they were creatures, and have an effective Constitution (which does not determine Hit Points) equal to 10 + Quality. Living Items can accept and interface with non-living technological devices normally, but can only be Repaired by regular healing, or Orliss sap. A single seed can only spawn a single Living Item. Non-Orliss trying to use the Heal skill on a Living Item suffer the normal alien technology penalties.
* *Preferred Class:* Technician.
* *Languages:* All Orliss speak Orliss for free.
* *Racial Skills:* Craft (Int), Diplomacy (Cha), Heal (Wis), Knowledge (Int), Spot (Wis).

Serkalth

A race of obsidian black-skinned humanoids, who lived on a world not much different from the moon of Earth. Their technology is highly advanced, higher than the modern human level, in fact, and they have mastered a form of gravitic technology. Their technology depends on incredible heat in the local environment to function however, as it was designed for the Serkalth home world; Serkalth who depart are often forced to adapt to foreign races technology.

They stand roughly 7-1/2 ft feet tall, and weigh some 350 pounds on average. Most of this mass is in their rigid armored shells surrounding their bodies, and they appear roughly as bulky as a human.

Racial Abilities

* +2 Strength, +2 Constitution, -4 Dexterity. Their tough hides make them very resistant to injury and their powerful muscles allow them to perform feats of amazing strength, but their massive weight slows them down.
* Weight: 300 + 5d20 lbs male, 300 + 4d20 lbs female. Height: 80 + 2d8 inches male, 80 + 2d6 inches female.
* Starting Age: 10 + 1d4 years. Decrepitude: 80 years.
* Base Speed of 30 ft, 10 ft. Burrow through rock, 5 ft. burrow through metal.
* Medium size.
* *Claws:* Serkalth have clawed hands that deal 1d8 + Strength modifier slashing damage, they use these chitin claws to burrow.
* *Exoskeleton:* Serkalth's tough hides provide Damage Reduction 2, and Energy Resistance 4. It also provides an extra Fire Resistance of 4 (for a total Energy Resistance of 8 against fire and lasers!). The exoskeleton is also very heat reflective, allowign them to comfortably tolerate ambient temperatures of up to 275 °F.
* *Hazard Survival:* Every hour a Serkalth can ignore many environmental hazards for up to their Constitution score in minutes. This time need not be consecutive, and the effect comes into play automatically. During this time they have a comfort zone of -250 °F to 350 °F, an atmosphere tolerance of everything from hard vacuum to 4a, and can ignore the Constitution penalties of gravity fields as high as 3g (see “Environmental Conditions” in Chapter 12: Running the Game for details)! During this time they also do not need to breathe, and cannot suffocate (see “Suffocation” in Chapter 12: Running the Game for details).
* *Technology Type:* Default, encompasses standard technology not specific to any race.
* *Technology Type:* Serkalth, encompasses Darkan Generators and Gravitic technology which only function at 130C+.
* Serkalth get the Technical Proficiency feat for free.
* *Preferred Class:* Vagabond
* *Languages:* All Serkalth speak Serkalth for free.
* *Racial Skills:* Climb (Str), Craft (Int), Listen (Wis), Spot (Wis), and Survival(Wis)

CLASSES

Classes in Dead Stars represent training and acquired skill. A person develops a class to show what kinds of skills and abilities he wishes to improve upon. The base classes listed below are available to virtually everybody in the default Dead Stars setting.

Psionicist

Somebody who was born with the mental nexus required to be able to use psionic powers. While many who are born with this nexus never develop it beyond a few parlor tricks, you have chosen to harness and refine your powers.

You must have one of the following feats before you can take levels in this class: Fetching, Psychokinesis, and Telepathy. These feats are only available during character creation. You can only take this class at character creation if you take at least one of the feats at the same time.

TABLE 1-2: THE PSIONICIST

Class Level	Base Attack	Fort Save	Ref Save	Will Save	Special
1	+0	+0	+0	+2	Psi Reserve (10 Vitality)
2	+0	+0	+0	+3	Bonus Psionic Feat
3	+0	+1	+1	+3	Psi Reserve (15 Vitality)
4	+0	+1	+1	+4	Bonus Psionic Feat
5	+0	+1	+1	+4	Psi Reserve (20 Vitality)
6	+0	+2	+2	+5	Bonus Psionic Feat
7	+0	+2	+2	+5	Psi Reserve (25 Vitality)
8	+0	+2	+2	+6	Bonus Psionic Feat
9	+0	+3	+3	+6	Psi Reserve (30 Vitality)
10	+0	+3	+3	+7	Bonus Psionic Feat

Vitality per Level: 1d6

Skills per Level: 2 + Int Mod

Class Skills: Bluff (Cha), Freefall (Dex), Intimidate (Cha), Knowledge (psionics) (Int), Profession (Wis), Sense Motive (Wis), and the skill associated with their psionic feats.

Class Abilities

The following abilities are gained by taking levels in the Psionicist class as indicated on the table above.

Weapons and Armor Proficiency: Simple Firearm, Melee; also Light armor.

Psi Reserve (Cns-Psi): Every day after you wake up, you have this amount of Vitality in addition to what you would normally have. This Vitality can only be used to activate psionic abilities. it doe snot count as Vitality for any other reason.

Bonus Psionic Feat: The character gets one additional feat that he does not have to pay any Experience Points for. These feats can only be those of the Psionic feat type. You can also choose to take the Skill Focus feat with one of your psionic skills instead.

Rogue

Every society has those who try to "work the system". People who treat life as a game that can be won. You might be a politician, smuggler, thief, or freelance trouble-shooter but the skills and attitude needed to practice your craft remain the same.

TABLE 1-3: THE ROGUE

Class Level	Base Attack	Fort Save	Ref Save	Will Save	Special
1	+0	+0	+2	+0	Bonus Feat
2	+1	+0	+3	+0	
3	+1	+1	+3	+1	Special Ability
4	+2	+1	+4	+1	Bonus Feat
5	+2	+1	+4	+1	
6	+3	+2	+5	+2	Special Ability
7	+3	+2	+5	+2	Bonus Feat
8	+4	+2	+6	+2	
9	+4	+3	+6	+3	Special Ability
10	+5	+3	+7	+3	Bonus Feat

Vitality per Level: 1d6

Skills per Level: 8 + Int mod

Class Skills: Appraise (Int), Balance (Dex), Bluff (Cha), Climb (Str), Computer Use (Int), Cryptography (Int), Diplomacy (Cha), Disable Device (Int), Disguise (Cha), Escape Artist (Dex), Forgery (Int), Freefall (Dex), Gather Information (Cha), Hide (Dex), Intimidate (Cha), Jump (Str), Listen (Wis), Move Silently (Dex), Open Lock (Dex), Perform (Cha), Pilot (Dex), Sleight of Hand (Dex), Profession (Wis), Search (Int), Sense Motive (Wis), Spot (Wis), Street Smarts (Wis), Swim (Str), Tumble (Dex), and Use Rope (Dex).

Class Abilities

The following abilities are gained by taking levels in the Rogue class as indicated on the table above.

Weapons and Armor Proficiency: Simple Firearm, Melee, Projectile; also Light armor.

Bonus Feat: The character gets one additional feat that he does not have to pay any Experience Points for. These feats can only be those of the Combat and General feat type.

Special Ability: You gain one of the following abilities, of your choice:

Combat Sense: You gain a +1 bonus to your Initiative and Defensive Class. You can take this Special Ability multiple times.

Counterfeiter's Shuffle: The character can, with a Sleight of Hand check DC 20, or in the case of money in an electronic account, a Computer Use check DC 20, make any amount of money he has appear twice as much as it actually is, unless the opponent can succeed at a Spot or Computer Use check opposed by the character. This could be used to buy equipment or simply inflate one's own seeming importance, but it usually has negative consequences when, at the end of the day, someone goes to count the money.

Evasion: Instead of taking half damage on a successful Reflex save, you take no damage on a successful Reflex save.

Feign Death: With a Bluff check opposed by the opponent's Sense Motive, a character can pass himself off for dead so long as he does not move. With a Wisdom check DC 20, he can also slow down his bodily rhythms to the point that most sensors would read him as either dead or dying on a cursory scan.

Improved Evasion: You must have Evasion before you can take this Special Ability. You take only half damage on a failed Reflex save.

Over There: By using a standard action to make a Bluff check opposed by the target's Sense Motive, the rogue can attempt to fool somebody into ignoring him until his next action. This time is usually taken to steal something, or run away. If the anybody attacks the target, this ability's effects are nullified. This ability can only be used once per encounter.

Skill Master: Choose any skill you know. You can always take 10 with that skill, no matter the circumstances, so long as you have not rolled for it yet. You also receive a +2 Insight bonus to all your checks with that skill. You can take this Special Ability multiple times.

Sucker Punch: The character is especially skilled at taking down surprised opponents. Anyone struck by the character when they are flat footed must succeed at a Fort save, DC equal to 5 + damage taken, or be stunned for 1d4 rounds, unable to act.

Throw Voice: By modulating his tones and volume, the character can attempt to make it sound as if he was not speaking. He can make his voice appear to be coming from any spot within 15 ft. This requires a successful Bluff check against a DC of 15.

Scholar

Knowledge is power, a fact which is central to your identity. You have worked long and hard to focus your deductive and analytical powers to a fine razor's edge. Keen enough to even frighten you some times!

TABLE 1-4: THE SCHOLAR

Class Level	Base Attack	Fort Save	Ref Save	Will Save	Special
1	+0	+0	+0	+1	Trivia
2	+0	+0	+0	+1	Knowledge Bonus
3	+0	+1	+1	+2	
4	+0	+1	+1	+2	Bonus General Feat
5	+0	+1	+1	+3	Minor Secrets
6	+0	+2	+2	+3	
7	+0	+2	+2	+4	Knowledge Bonus
8	+0	+2	+2	+4	Bonus General Feat
9	+0	+3	+3	+5	
10	+0	+3	+3	+5	Major Secrets

Vitality per Level: 1d4

Skills per Level: 6 + Int mod

Class Skills: Appraise (Int), Astrogation (Int), Computer Use (Int), Cryptography (Int), Forgery (Int), Gather Information (Cha), Knowledge (Int), Perform (Cha), Profession (Wis), Research (Wis), and Search (Int). Scholars can choose to add any two other skills as class skills, even Psionic skills (although they need the appropriate feat first). They need not declare what skills these are when they take their first Scholar level, but can designate them at any time they gain a scholar level. Once chosen, a skill cannot later be changed.

Class Abilities

The following abilities are gained by taking levels in the Scholar class as indicated on the table above.

Weapons and Armor Proficiency: Simple Firearm.

Trivia: Once per game day you can make a Scholar level + Intelligence Modifier check, against a DC of 15. If you succeed, then you find out one piece of useful information for a particular situation. Examples would include: the first digit of a 10-digit access code, a guard's first name that you have to Bluff your way past, the location of a reliable medic in that area of the urban sprawl, and so on.

Knowledge Bonus: You get a +2 insight bonus to a single Knowledge skill.

Bonus General Feat: The character gets one additional feat that he does not have to pay any Experience Points for. These feats can only be those of the General feat type.

Minor Secrets: Once per game day you can make a Scholar level + Intelligence Modifier check, against a DC of 20. If you succeed then you can find out one piece of minor valuable information about the current situation. Examples would include: knowing the 10-digit security code is the owner's personal ID code, a guard's full name that you have to Bluff your way past, the location of a trustworthy medic in that area of the urban sprawl, and so on.

Major Secrets: Once per game day you can make a Scholar level + Intelligence Modifier check, against a DC of 25. If you succeed then you can find out one piece of greatly useful information about the current situation.

Examples would include: knowing the 10-digit security code was the number written on the bottom of the owner's picture in your pocket, a guard's dirty secret that you have to Bluff your way past, the location of a medic in that area of the urban sprawl that owes you a major favor, and so on.

Technician

You have a fascination with one or more types of technical work, from computers to surgery or even robotics. This fascination has lead you to developing great skill with the deices you are fascinated by.

TABLE 1-5: THE TECHNICIAN

Class Level	Base Attack	Fort Save	Ref Save	Will Save	Special
1	+0	+1	+1	+0	Emergency Repair
2	+0	+1	+1	+0	Technical Bonus
3	+0	+2	+2	+1	
4	+0	+2	+2	+1	Jury Rig
5	+0	+3	+3	+1	
6	+0	+3	+3	+2	Technical Bonus
7	+0	+4	+4	+2	Widget
8	+0	+4	+4	+2	Technical Bonus
9	+0	+5	+5	+3	
10	+0	+5	+5	+3	Prototype

Vitality per Level: 1d4

Skills per Level: 6 + Int mod

Class Skill: Appraise (Int), Astrogation (Int), Computer Use (Int), Craft (Int), Cryptography (Int), Demolitions (Int), Disable Device (Int), Freefall (Dex), Heal (Wis), Knowledge (Int), Open Lock (Dex), Perform (Cha), Pilot (Dex), Profession (Wis), Remote Operation (Int), Repair (Int), Robotics (Int), and Use Rope (Dex).

Class Abilities

The following abilities are gained by taking levels in the Technician class as indicated on the table above.

Weapons and Armor Proficiency: Simple Firearm, Melee; also Light armor.

Emergency Repair: If you spend a full round alternately hitting, screaming at, cussing out, and poking at a malfunctioning or broken piece of equipment, there is a chance you can coerce it into working again! This requires a Repair check against a DC equal to the Repair DC of the item. The item will work normally for 1d6 rounds, plus one round for every point you exceeded the DC by. If you fail the check by more than five points, you deal 1d6 points of damage to the item, 2d6 if you roll a natural 1.

Technical Bonus: Pick one of the following skills, and you get a +2 Insight bonus to it: Astrogation, Computer Use, Craft (each taken individually), Cryptography, Demolitions, Disable Device, Heal, Open Lock, Remote Operation, Repair, or Robotics.

Jury Rig: If you have the necessary parts to make an item, you can spend 1 full round per 100 credit cost of the item to try and make a short-duration version of it. This requires a Craft check against a DC equal to the Craft DC of the item. If you succeed, then the item will work normally for 1d6 rounds plus one round per point you exceeded the craft check by! At the end of this time, the item stops working and must be crafted normally before it will resume functioning.

Widget: If you have access to parts at least reasonably similar to those you would need to make an item, you can fashion them into a reasonable facsimile of the desired item. This requires a successful Craft check with a DC equal to the normal DC of the item. This takes one full round for every point of DC of the Craft check. The facsimile version weighs twice as much, but has half the hit points, and imposes a -2 penalty to all dice rolls made with it or that it makes. It's component items cannot be easily reconstituted, and must be repaired as though they were malfunctioning in order to be restored to their proper use.

Prototype: You can fashion almost anything out of...almost anything! Bombs from baking goods, computers from children's toys, robots from wave-ovens, almost nothing is beyond your scavenging grasp! This allows you to craft any item using raw goods of almost any type, by increasing the Craft DC by an amount based on the appropriateness of the original materials. The price of the original materials must still be equal to 1/4th the price of the item to be Crafted. Mildly inappropriate materials are at +5 DC (radio communicators into a computer), very inappropriate materials are at +10 DC (children's talking toys into a computer), totally inappropriate materials are at +20 DC (kitchenware into a computer), but not *quite* impossible!

Vagabond

You have been exposed to trials and ordeals that most people try to repress, and have learned from the experience. Whether this is being marooned on a barren asteroid, being forced to subsist on the most meager of supplies, being trapped on a vessel infested with Necrol, or something else the result is the same. You have become toughened by the experience, maybe even jaded.

TABLE 1-6: THE VAGABOND

Class Level	Base Attack	Fort Save	Ref Save	Will Save	Special
1	+0	+2	+1	+1	Energy Resistance 1
2	+1	+3	+1	+1	
3	+1	+3	+2	+2	
4	+2	+4	+2	+2	Damage Reduction 1
5	+2	+4	+3	+3	
6	+3	+5	+3	+3	
7	+3	+5	+4	+4	Energy Resistance 2
8	+4	+6	+4	+4	
9	+4	+6	+5	+5	
10	+5	+7	+5	+5	Damage Reduction 2

Vitality per Level: 1d8
Skills per Level: 4 + Int mod
Class Skills: Climb (Str), Craft (Int), Disguise (Cha), Escape Artist (Dex), Freefall (Dex), Gather Information (Cha), Handle Animal (Cha), Heal (Wis), Hide (Dex), Intimidate (Cha), Jump (Str), Listen (Wis), Move Silently (Dex), Perform (Cha), Profession (Wis), Sense Motive (Wis), Spot (Wis), Street Smarts (Wis), Survival (Wis), Swim (Str), Tumble (Dex), and Use Rope (Dex).

Class Abilities

The following abilities are gained by taking levels in the Vagabond class as indicated on the table above.

Weapons and Armor Proficiency: Simple Firearm, Melee, Projectile and Martial Firearm, Melee; also Light, and Medium armor.

Energy Resistance: You ignore this amount of damage from all energy sources. This is in addition to the amount ignored from Energy Resistances gained elsewhere. Constant sources (such as radiation) are reduced by this amount every time their damage is assessed, to a minimum of 1 point (so 3/hour radiation damage would be 2/hour, but 1/hour is still 1/hour).

Damage Reduction: You ignore this amount of damage from non-energy sources. This includes both Hit Point and Vitality damage. This is in addition to any amount of Damage Reduction gained elsewhere.

Warrior

You are a trained and practiced killer, proficient in all types of the tools of your trade. You are hardened to the reality of life these days: that it is short and often brutal. This attitude leads some to suicide, but you it has lead to a fiery defiance to *not be* the one to die!

TABLE 1-7: THE WARRIOR

Class Level	Base Attack	Fort Save	Ref Save	Will Save	Special
1	+1	+2	+1	+0	Bonus Combat Feat
2	+2	+3	+1	+0	Bonus Combat Feat
3	+3	+3	+2	+1	
4	+4	+4	+2	+1	Bonus Combat Feat
5	+5	+4	+3	+1	
6	+6	+5	+3	+2	Bonus Combat Feat
7	+7	+5	+4	+2	
8	+8	+6	+4	+2	Bonus Combat Feat
9	+9	+6	+5	+3	
10	+10	+7	+5	+3	Bonus Combat Feat

Vitality per Level: 1d10
Skills per Level: 2 + Int mod
Class Skills: Demolitions (Int), Freefall (Dex), Intimidate (Cha), Jump (Str), Perform (Cha), Pilot (Dex), Profession (Wis), Spot (Wis), and Street Smarts (Wis).

Class Abilities

The following abilities are gained by taking levels in the Warrior class as indicated on the table above.

Weapons and Armor Proficiency: Simple Firearm, Melee, Projectile and Martial Firearm, Melee, Projectile; also Light, Medium, and Heavy armor.

Bonus Combat Feat: The character gets one additional feat that he does not have to pay any Experience Points for. These feats can only be those of the Combat feat type.

TWO: SKILLS

A skill is a learned ability that a character uses, that can have a widely-ranged outcome and difficulty. This covers everything from noticing an ambusher, to building devices, to jumping a goodly distance. While many skills can be sued without any practice or training whatsoever, most people are better off not trying to build nuclear power plants by trial and error!

TABLE 2-1: SKILLS

Master Skill List Skill	Key Ability	Trained Only?	ACP?	Technical Proficiency?
Appraise	Int	No	No	No
Astrogation	Int	Yes	No	No
Balance	Dex	No	Yes	No
Bluff	Cha	No	No	No
Climb	Str	No	Yes	No
Computer Use	Int	No	No	Yes
Craft	Int	No	No	Usually
Cryptography	Int	Yes	No	No
Demolitions	Int	Yes	No	Yes
Diplomacy	Cha	No	No	No
Disable Device	Int	Yes	No	No
Disguise	Cha	No	No	No
Escape Artist	Dex	No	Yes	No
Forgery	Int	No	No	Often
Freefall	Dex	No	Yes	No
Gather Information	Cha	No	No	No
Handle Animal	Cha	Yes	No	No
Heal	Wis	No	No	No
Hide	Dex	No	Yes	No
Intimidate	Cha	No	No	No
Jump	Str	No	Yes	No
Knowledge	Int	Yes	No	No
Listen	Wis	No	No	No
Move Silently	Dex	No	Yes	No
Open Lock	Dex	Yes	No	Sometimes
Perform	Cha	No	No	No
Pilot	Dex	No	Yes	Yes
Profession	Wis	Yes	No	No
Remote Operation	Int	No	No	Yes
Repair	Int	Yes	No	Yes
Research	Wis	No	No	Sometimes
Robotics	Int	No	No	Yes
Search	Int	No	No	No
Sense Motive	Wis	No	No	No
Sleight of Hand	Dex	Yes	Yes	No
Spot	Wis	No	No	No
Street Smarts	Wis	No	No	No
Survival	Wis	No	No	No
Swim	Str	No	No	No
Tumble	Dex	Yes	Yes	No
Use Rope	Dex	No	No	No

SKILLS SUMMARY

If you buy a class skill, your character gets 1 rank (equal to a +1 bonus on checks with that skill) for each skill point. If you buy a skill that is not a class skill, you still get 1 rank.

Your maximum rank in a class skill is your class level + 3.

Class skills are the skills listed for each class, as well as your racial skills list. Your effective class level for purposes of how many ranks you can have in any given skill is equal to your total character level if it is a racial skill, or your levels in classes that have that skill on their skill list if it is not a racial skill.

Your maximum rank in a cross-class skill is only 3.

Using Skills: To make a skill check, roll: 1d20 + skill modifier (Skill modifier = skill rank + ability modifier + miscellaneous modifiers)

This roll works just like an attack roll or a saving throw— the higher the roll, the better. Either you're trying to match or exceed a certain Difficulty Class (DC), or you're trying to beat another character's check result.

Skill Ranks: A character's number of ranks in a skill is based on how many skill points a character has invested in a skill. Many skills can be used even if the character has no ranks in them; doing this is called making an untrained skill check.

Ability Modifier: The ability modifier used in a skill check is the modifier for the skill's key ability (the ability associated with the skill's use). The key ability of each skill is noted in its description.

Miscellaneous Modifiers: Miscellaneous modifiers include racial bonuses, armor check penalties, and bonuses provided by feats, among others.

USING SKILLS

When your character uses a skill, you make a skill check to see how well he or she does. The higher the result of the skill check, the better. Based on the circumstances, your result must match or beat a particular number (a DC or the result of an opposed skill check) for the check to be successful. The harder the task, the higher the number you need to roll.

Circumstances can affect your check. A character who is free to work without distractions can make a careful attempt and avoid simple mistakes. A character who has lots of time can try over and over again, thereby assuring the best outcome. If others help, the character may succeed where otherwise he or she would fail.

SKILL CHECKS

A skill check takes into account a character's training (skill rank), natural talent (ability modifier), and luck (the die roll). It may also take into account his or her race's knack for doing certain things (racial bonus) or what armor he or she is wearing (armor check penalty), or a certain feat the character possesses, among other things.

To make a skill check, roll 1d20 and add your character's skill modifier for that skill. The skill modifier incorporates the character's ranks in that skill and the ability modifier for that skill's key ability, plus any other miscellaneous modifiers that may apply, including racial bonuses and armor check penalties. The higher the result, the better. Unlike with attack rolls and saving throws, a natural roll of 20 on the d20 is not an automatic success, and a natural roll of 1 is not an automatic failure.

Difficulty Class

Some checks are made against a Difficulty Class (DC). The DC is a number (set using the skill rules as a guideline) that you must score as a result on your skill check in order to succeed.

TABLE 2-2: DIFFICULTY CLASS EXAMPLES

Difficulty	DC	Example (Skill Used)
Very easy	0	Notice something large in plain sight (Spot)
Easy	5	Climb a knotted rope (Climb)
Average	10	Hear an approaching guard (Listen)
Tough	15	Rig a grav-cushion to fail (Disable Device)
Challenging	20	Swim in stormy water (Swim)
Formidable	25	Open an average lock (Open Lock)
Heroic	30	Leap accross a 30-foot chasm (Jump)
Nearly	40	Track a group of ghoulies across hard ground
Impossible		after 24 hours of rainfall (Survival)

Opposed Checks

An opposed check is a check whose success or failure is determined by comparing the check result to another character's check result. In an opposed check, the higher result succeeds, while the lower result fails. In case of a tie, the higher skill modifier wins. If these scores are the same, roll again to break the tie.

TABLE 2-3: EXAMPLE OPPOSED CHECKS

Task	Skill (Key Ability)	Opposing Skill (Key Ability)
Con someone	Bluff (Cha)	Sense Motive (Wis)
Impersonate someone	Disguise (Cha)	Spot (Wis)
Create false map	Forgery (Int)	Forgery (Int)
Hide from someone	Hide (Dex)	Spot (Wis)
Make others back off	Intimidate (Cha)	Special*
Sneak up on someone	Move Silently (Dex)	Listen (Wis)
Steal a carried item	Sleight of Hand (Dex)	Spot (Wis)
Tie a prisoner up	Use Rope (Dex)	Escape Artist (Dex)

* An Intimidate check is opposed by the target's Base Attack bonus + Will, not another skill.

Trying Again

In general, you can try a skill check again if you fail, and you can keep trying indefinitely. Some skills, however, have consequences of failure that must be taken into account. A few skills are virtually useless once a check has failed on an attempt to accomplish a particular task. For most skills, when a character has succeeded once at a given task, additional successes are meaningless.

Untrained Skill Checks

Generally, if your character attempts to use a skill he or she does not possess, you make a skill check as normal. The skill modifier doesn't have a skill rank added in because the character has no ranks in the skill. Any other applicable modifiers, such as the modifier for the skill's key ability, are applied to the check.

Many skills can be used only by someone who is trained in them.

Favorable and Unfavorable Conditions

Some situations may make a skill easier or harder to use, resulting in a bonus or penalty to the skill modifier for a skill check or a change to the DC of the skill check.

The chance of success can be altered in four ways to take into account exceptional circumstances.

1. Give the skill user a +2 circumstance bonus to represent conditions that improve performance, such as having the perfect tool for the job, getting help from another character (see Combining Skill Attempts), or possessing unusually accurate information.
2. Give the skill user a –2 circumstance penalty to represent conditions that hamper performance, such as being forced to use improvised tools or having misleading information.
3. Reduce the DC by 2 to represent circumstances that make the task easier, such as having a friendly audience or doing work that can be subpar.
4. Increase the DC by 2 to represent circumstances that make the task harder, such as having an uncooperative audience or doing work that must be flawless.

Conditions that affect your character's ability to perform the skill change the skill modifier. Conditions that modify how well the character has to perform the skill to succeed change the DC. A bonus to the skill modifier and a reduction in the check's DC have the same result: They create a better chance of success. But they represent different circumstances, and sometimes that difference is important.

Time and Skill Checks

Using a skill might take a round, take no time, or take several rounds or even longer. Most skill uses are standard actions, move actions, or full-round actions. Types of actions define how long activities take to perform within the framework of a combat round (6 seconds) and how movement is treated with respect to the activity. Some skill checks are instant and represent reactions to an event, or are included as part of an action.

These skill checks are not actions. Other skill checks represent part of movement.

Checks without Rolls

A skill check represents an attempt to accomplish some goal, usually while under some sort of time pressure or distraction. Sometimes, though, a character can use a skill under more favorable conditions and eliminate the luck factor.

Taking 10: When your character is not being threatened or distracted, you may choose to take 10. Instead of rolling 1d20 for the skill check, calculate your result as if you had rolled a 10. For many routine tasks, taking 10 makes them automatically successful. Distractions or threats (such as combat) make it impossible for a character to take 10. In most cases, taking 10 is purely a safety measure —you know (or expect) that an average roll will succeed but fear that a poor roll might fail, so you elect to settle for the average roll (a 10).

Taking 10 is especially useful in situations where a particularly high roll wouldn't help.

Taking 20: When you have plenty of time (generally 2 minutes for a skill that can normally be checked in 1 round, one full-round action, or one standard action), you are faced with no threats or distractions, and the skill being attempted carries no penalties for failure, you can take 20. In other words, eventually you will get a 20 on 1d20 if you roll enough times. Instead of rolling 1d20 for the skill check, just calculate your result as if you had rolled a 20.

Taking 20 means you are trying until you get it right, and it assumes that you fail many times before succeeding. Taking 20 takes twenty times as long as making a single check would take.

Since taking 20 assumes that the character will fail many times before succeeding, if you did attempt to take 20 on a skill that carries penalties for failure, your character would automatically incur those penalties before he or she could complete the task. Common "take 20" skills include Escape Artist, Open Lock, and Search.

Ability Checks: The normal take 10 and take 20 rules apply for ability checks.

TASK TIME

Any skill check that takes time to perform has a base time of 10 minutes per point of DC to take. If the character making the check gets a multiple of this DC on his skill check, he can choose to either perform the same task multiple times within that time frame, or divide the amount of time it actually took by the multiple.

Picking locks instead uses the DC in combat rounds.

COMBINING SKILL ATTEMPTS

When more than one character tries the same skill at the same time and for the same purpose, their efforts may overlap.

Individual Events

Often, several characters attempt some action and each succeeds or fails independently. The result of one character's Climb check does not influence the results of other characters Climb check.

Aid Another

You can help another character achieve success on his or her skill check by making the same kind of skill check in a cooperative effort. If you roll a 10 or higher on your check, the character you are helping gets a +2 bonus to his or her check, as per the rule for favorable conditions. (You can't take 10 on a skill check to aid another.) In many cases, a character's help won't be beneficial, or only a limited number of characters can help at once.

In cases where the skill restricts who can achieve certain results you can't aid another to grant a bonus to a task that your character couldn't achieve alone.

Skill Synergy

It's possible for a character to have two skills that work well together. In general, for every full 5 or more ranks in one skill gives the character a +2 bonus on skill checks with each of its synergistic skills, as noted in the skill description. In some cases, this bonus applies only to specific uses of the skill in question, and not to all checks. Some skills provide benefits on other checks made by a character, such as those checks required to use certain class features.

TABLE 2-4: SKILL SYNERGIES

Every 5 ranks in...	Gives a +2 bonus on...
Appropriate Craft	Appraise
Appropriate Craft	Repair
Appropriate Knowledge	Research
Balance	Freefall
Bluff	Diplomacy
Bluff	Disguise (when impersonating)
Bluff	Intimidate
Bluff	Sleight of Hand
Computer Use	Robotics (programming)
Cryptography	Computer Use (hacking into systems)
Escape Artist	Use Rope (to bind someone)
Jump	Freefall
Jump	Tumble
Knowledge (biology)	Heal
Knowledge (chemistry)	Craft (poison)
Knowledge (chemistry)	Demolitions (to make explosives)
Knowledge (local)	Gather Information (that area)
Knowledge (local)	Street Smarts (that area)
Knowledge (psionics)	Fetching, Psychokinesis, Telepathy
Knowledge (space)	Astrogation
Robotics	Craft (robotics)
Robotics	Repair (fix robots)
Search	Survival (find or follow tracks)
Sense Motive	Diplomacy
Street Smarts	Gather Information (locate something)
Tumble	Balance
Tumble	Freefall
Tumble	Jump
Use Rope	Climb (when using a rope)
Use Rope	Escape Artist (to get out of ropes)

ABILITY CHECKS

Sometimes a character tries to do something to which no specific skill really applies. In these cases, you make an ability check. An ability check is a roll of 1d20 plus the appropriate ability modifier. Essentially, you're making an untrained skill check.

In some cases, an action is a straight test of one's ability with no luck involved. Just as you wouldn't make a height check to see who is taller, you don't make a Strength check to see who is stronger.

SKILL DESCRIPTIONS

This section describes each skill, including common uses and typical modifiers. Characters can sometimes use skills for purposes other than those noted here.
Here is the format for skill descriptions.

Skill Name (Ability Score; Other modifers)

The skill name line includes (in addition to the name of the skill) the following information.

Key Ability: The abbreviation of the ability whose modifier applies to the skill check. *Exception:* Speak Language has "None" as its key ability because the use of this skill does not require a check.

Trained Only: If this notation is included in the skill name line, you must have at least 1 rank in the skill to use it. If it is omitted, the skill can be used untrained (with a rank of 0). If any special notes apply to trained or untrained use, they are covered in the Untrained section (see below).

Armor Check Penalty: If this notation is included in the skill name line, an armor check penalty applies (when appropriate) to checks using this skill. If this entry is absent, an armor check penalty does not apply.

Gravity Check Mod: A character's Dexterity penalty for heavy or low gravity affects their effective Dexterity with this skill.

The skill name line is followed by a general description of what using the skill represents. After the description are a few other types of information:

Check: What a character ("you" in the skill description) can do with a successful skill check and the check's DC.

Action: The type of action using the skill requires, or the amount of time required for a check.

Try Again: Any conditions that apply to successive attempts to use the skill successfully. If the skill doesn't allow you to attempt the same task more than once, or if failure carries an inherent penalty (such as with the Climb skill), you can't take 20. If this paragraph is omitted, the skill can be retried without any inherent penalty, other than the additional time required.

Special: Any extra facts that apply to the skill, such as special effects deriving from its use or bonuses that certain characters receive because of class, feat choices, or race.

Restriction: The full utility of certain skills is restricted to characters of certain classes or characters who possess certain feats. This entry indicates whether any such restrictions exist for the skill.

Untrained: This entry indicates what a character without at least 1 rank in the skill can do with it. If this entry doesn't appear, it means that the skill functions normally for untrained characters (if it can be used untrained) or that an untrained character can't attempt checks with this skill (for skills that are designated as "Trained Only").

Synergy: Some skills grant a bonus to the use of one or more other skills because of a synergistic effect. This entry, when present, indicates what bonuses this skill may grant or receive because of such synergies. See Synergy Table for a complete list of bonuses granted by synergy between skills (or between a skill and a class feature).

Appraise (Int)

Check: You can appraise common or well-known objects with a DC 12 Appraise check. Failure means that you estimate the value at 50% to 150% (2d6+3 times 10%,) of its actual value.

Appraising a rare or exotic item requires a successful check against DC 15, 20, or higher. If the check is successful, you estimate the value correctly; failure means you cannot estimate the item's value.

An appraising kit or robotic program in a cerebral computer add it's Quality or ranks to your Appraisal checks.

These bonuses stack.

Action: Appraising an item takes 1 minute (ten consecutive full-round actions).

Try Again: No. You cannot try again on the same object, regardless of success.

Synergy: If you have 5 ranks in any Craft skill, you gain a +2 bonus on Appraise checks related to items made with that Craft skill.

Untrained: For common items, failure on an untrained check means no estimate. For rare items, success means an estimate of 50% to 150% (2d6+3 times 10%).

Astrogation (Int; Trained Only)

This skill allows you to use stellar maps to plot a course from one location to another in a solar system or between the stars.

Check: Plotting a coarse inside a solar system depends on the number of major feature's orbits from beginning to end (including point of departure and destination). The DC is 10 + 2 per orbit. Add another +5 if the route must enter or pass through a crowded section of space (like a meteor cloud or major spaceport).

Plotting a coarse from one solar system to another depends on the amount of light-years involved in the journey. The base DC is 20, but you add +5 for every light-year beyond the first. The DC instead goes up by +10 per light-year that the ship's jumper has never traveled before. Lower the DC by five for every travel beacon or star along the way (including the point of arrival), but the ship must stop at each such location to do so.

A failed Astrogation check means the ship missed it's destination by 5% of the total distance traveled for every point the DC was missed by. If the failure was on a 1, then the ship ends up in the worst possible location within that distance.

Synergy: Every 5 ranks in Knowledge (space) provides a +2 synergy bonus to your Astrogation checks.

Balance (Dex; Armor Check Penalty)

Check: You can walk on a precarious surface. A successful check lets you move at half your speed along the surface for 1 round. A failure by 4 or less means you can't move for 1 round. A failure by 5 or more means you fall. The difficulty varies with the surface, as follows:

Narrow Surface	*Balance DC*[1]
7–12 inches wide	10
2–6 inches wide	15
Less than 2 inches wide	20

Difficult Surface	*Balance DC*[1]
Uneven flagstone	10[2]
Hewn stone floor	10[2]
Sloped or angled floor	10[2]

1 Add modifiers from Narrow Surface Modifiers, below, as appropriate.

2 Only if running or charging. Failure by 4 or less means the character can't run or charge, but may otherwise act normally.

Narrow Surface Modifiers

Surface	*DC Modifier*[1]
Lightly obstructed	+2
Severely obstructed	+5
Lightly slippery	+2
Severely slippery	+5
Sloped or angled	+2

1 Add the appropriate modifier to the Balance DC of a narrow surface.

These modifiers stack.

Being Attacked while Balancing: You are considered flat-footed while balancing, since you can't move to avoid a blow, and thus you lose your Dexterity bonus to AC (if any). For every 5 ranks in Balance, you aren't considered flat-footed while balancing. If you take damage while balancing, you must make another Balance check against the same DC to remain standing.

Accelerated Movement: You can try to walk across a precarious surface more quickly than normal. If you accept a –5 penalty, you can move your full speed as a move action. (Moving twice your speed in a round requires two Balance checks, one for each move action used.) You may also accept this penalty in order to charge across a precarious surface; charging requires one Balance check for each multiple of your speed (or fraction thereof) that you charge.

Action: None. A Balance check doesn't require an action; it is made as part of another action or as a reaction to a situation.

Synergy: For every 5 ranks in Tumble, you get a +2 bonus on Balance checks.

Synergy: For every 5 ranks in Balance you gain a +2 synergy bonus on all Freefall checks.

Bluff (Cha)

Check: A Bluff check is opposed by the target's Sense Motive check. See the accompanying table for examples of different kinds of bluffs and the modifier to the target's Sense Motive check for each one.

Example Circumstance	*Sense Motive Modifier*
The target wants to believe you	-5
"These guns aren't stolen. I'm just in a hurry to catch my ship, and it has a strict no-weapons rule, so I have to take what I can get."	
The bluff is believable, and doesn't affect the target much.	+0
"What are you talking about with all this suspected terrorist stuff? I'm just here in the market to do some shopping!"	
The bluff is a little hard to believe, or the target is in risk.	+5
"You guards think you have what it takes to drop *me?!* C'mon, one at a time or all at once! I've got the death sentence in twelve systems, what does another matter?	
The bluff is hard to believe, or puts the target at great risk.	+10
"This? No its not a pocket nuke, its...a cappuccino machine?"	
The bluff is way out there, almost impossible to believe!	+20
"But I *really am* the long-lost king of the Necrol!"	

Favorable and unfavorable circumstances weigh heavily on the outcome of a bluff. Two circumstances can weigh against you: The bluff is hard to believe, or the action that the target is asked to take goes against its self-interest, nature, personality, orders, or the like. If it's important, you can distinguish between a bluff that fails because the target doesn't believe it and one that fails because it just asks too much of the target. For instance, if the target gets a +10 bonus on its Sense Motive check because the bluff demands something risky, and the Sense Motive check succeeds by 10 or less, then the target didn't so much see through the bluff as prove reluctant to go along with it. A target that succeeds by 11 or more has seen through the bluff.

A successful Bluff check indicates that the target reacts as you wish, at least for a short time (usually 1 round or less) or believes something that you want it to believe. Bluff, however, is not a *suggestion* spell.

A bluff requires interaction between you and the target. Creatures unaware of you cannot be bluffed.

Feinting in Combat: You can also use Bluff to mislead an opponent in melee combat (so that it can't dodge your next attack effectively). To feint, make a Bluff check opposed by your target's Sense Motive check, but in this case, the target may add its base attack bonus to the roll along with any other applicable modifiers.

If your Bluff check result exceeds this special Sense Motive check result, your target is denied its Dexterity bonus to AC (if any) for the next melee attack you make against it. This attack must be made on or before your next turn.

Feinting in this way against a non-humanoid is difficult because it's harder to read a strange creature's body language; you take a –4 penalty on your Bluff check. Against a creature of animal Intelligence (1 or 2) it's even harder; you take a –8 penalty. Against a non-intelligent creature, it's impossible.

Feinting in combat does not provoke an attack of opportunity.

Creating a Diversion to Hide: You can use the Bluff skill to help you hide. A successful Bluff check

gives you the momentary diversion you need to attempt a Hide check while people are aware of you. This usage does not provoke an attack of opportunity.

Delivering a Secret Message: You can use Bluff to get a message across to another character without others understanding it. The DC is 15 for simple messages, or 20 for complex messages, especially those that rely on getting across new information. Failure by 4 or less means you can't get the message across. Failure by 5 or more means that some false information has been implied or inferred. Anyone listening to the exchange can make a Sense Motive check opposed by the Bluff check you made to transmit in order to intercept your message (see Sense Motive).

Action: Varies. A Bluff check made as part of general interaction always takes at least 1 round (and is at least a full-round action), but it can take much longer if you try something elaborate. A Bluff check made to feint in combat or create a diversion to hide is a standard action. A Bluff check made to deliver a secret message doesn't take an action; it is part of normal communication.

Try Again: Varies. Generally, a failed Bluff check in social interaction makes the target too suspicious for you to try again in the same circumstances, but you may retry freely on Bluff checks made to feint in combat. Retries are also allowed when you are trying to send a message, but you may attempt such a retry only once per round.

Each retry carries the same chance of miscommunication.

Synergy: For every 5 ranks in Bluff, you get a +2 bonus on Diplomacy, Intimidate, and Sleight of Hand checks, as well as on Disguise checks made when you know you're being observed and you try to act in character.

Example Circumstances	*Sense Motive Modifier*
The target wants to believe you.	-5
believable and doesn't affect the target much.	+0
a little hard to believe or puts the target at some risk.	+5
hard to believe or puts the target at significant risk.	+10
way out there, almost too incredible to consider.	+20

Climb (Str; Armor Check Penalty)

Check: With a successful Climb check, you can advance up, down, or across a slope, a wall, or some other steep incline (or even a ceiling with handholds) at one-quarter your normal speed. A slope is considered to be any incline at an angle measuring less than 60 degrees; a wall is any incline at an angle measuring 60 degrees or more.

A Climb check that fails by 4 or less means that you make no progress, and one that fails by 5 or more means that you fall from whatever height you have already attained.

A climber's kit gives you a +2 circumstance bonus on Climb checks.

The DC of the check depends on the conditions of the climb. Compare the task with those on the following table to determine an appropriate DC.

DC	*Example Surface or Activity*
0	A slope too steep to walk up, or a knotted rope with a wall to brace against.
5	A rope with a wall to brace against, or a knotted rope.
10	A surface with ledges to hold on to and stand on, such as a very rough wall.
15	Any surface with adequate handholds and footholds (natural or artificial), such as a very rough natural rock surface or a tree, or an unknotted rope, or pulling yourself up when dangling by your hands.
20	An uneven surface with some narrow handholds and footholds, such as a typical but unmaintained wall.
25	A rough surface, such as a natural rock wall or a brick wall.
25	An overhang or ceiling with handholds but no footholds.
---	A perfectly smooth, flat, vertical surface cannot be climbed.

Climb DC Modifier[1]	*Example Surface or Activity*
-10	Climbing a chimney (artificial or natural) or other location where you can brace against two opposite walls (reduces DC by 10).
-5	Climbing a corner where you can brace against perpendicular walls (reduces DC by 5).
+5	Surface is slippery (increases DC by 5).

1 These modifiers are cumulative; use any that apply.

You need both hands free to climb, but you may cling to a wall with one hand while you cast a spell or take some other action that requires only one hand. While climbing, you can't move to avoid a blow, so you lose your Dexterity bonus to AC (if any). You also can't use a shield while climbing.

Any time you take damage while climbing, make a Climb check against the DC of the slope or wall. Failure means you fall from your current height and sustain the appropriate falling damage.

Accelerated Climbing: You try to climb more quickly than normal. By accepting a –5 penalty, you can move half your speed (instead of one-quarter your speed).

Making Your Own Handholds and Footholds: You can make your own handholds and footholds by pounding pitons into a wall. Doing so takes 1 minute per piton, and one piton is needed per 3 feet of distance. As with any surface that offers handholds and footholds, a wall with pitons in it has a DC of 15. In the same way, a climber with a handaxe or similar implement can cut handholds in an ice wall.

Catching Yourself When Falling: It's practically impossible to catch yourself on a wall while falling. Make a Climb check (DC = wall's DC + 20) to do so. It's much easier to catch yourself on a slope (DC = slope's DC + 10).

Catching a Falling Character While Climbing: If someone climbing above you or adjacent to you falls, you can attempt to catch the falling character if he or she is within your reach. Doing so requires a successful melee touch attack against the falling character (though he or she can voluntarily forego any Dexterity bonus to AC if desired). If you hit, you must immediately attempt a Climb check (DC = wall's DC + 10). Success indicates that you catch the falling character, but his or her total weight, including equipment, cannot exceed your heavy load limit or you automatically fall. If you fail your Climb check by 4 or less, you fail to stop the character's fall but don't lose

your grip on the wall. If you fail by 5 or more, you fail to stop the character's fall and begin falling as well.

Action: Climbing is part of movement, so it's generally part of a move action (and may be combined with other types of movement in a move action). Each move action that includes any climbing requires a separate Climb check. Catching yourself or another falling character doesn't take an action.

Special: You can use a rope to haul a character upward (or lower a character) through sheer strength. You can lift double your maximum load in this manner.

A creature with a climb speed has a +8 racial bonus on all Climb checks. The creature must make a Climb check to climb any wall or slope with a DC higher than 0, but it always can choose to take 10, even if rushed or threatened while climbing. If a creature with a climb speed chooses an accelerated climb (see above), it moves at double its climb speed (or at its land speed, whichever is slower) and makes a single Climb check at a –5 penalty. Such a creature retains its Dexterity bonus to Armor Class (if any) while climbing, and opponents get no special bonus to their attacks against it. It cannot, however, use the run action while climbing.

Synergy: For every 5 ranks in Use Rope, you get a +2 bonus on Climb checks made to climb a rope, a knotted rope, or a rope-and-wall combination.

Computer Use (Int; Technical Proficiency)

This skill is used to find information on computer systems, as well as to set up and program computer systems.

Cracking a Computer: Most datasheets and computer systems are password protected. Once you have access to a system – through a personal device, terminal, or network – you must make a Computer Use check to access protected files or programs. The DC is based on the sophistication of the computer and it's security programming: Computer Complexity + (Security Program Level x 2) – your computer's Complexity. It takes the regular task time for each check. You get to add the rating of your highest level Codebreaking program to this check as a circumstance bonus.

Once you have access to a computer's operating system, you can install programs or copy data to or from the system. Its easiest to install prepared programs – writing code on the fly isn't easy. Writing a program takes five hours for every point of the program's DC, based on its complexity as shown on the table below. For every five hours by which you want to reduce the programming time, to a minimum of five hours, increase the DC by 1.

DC	*Program*
10	Simple program (does one thing)
15	Mildly complex program (does two or three things)
20	Moderately complex program (does up to five things)
25	Incredibly complex program (does up to 10 things)
20 + (Rating x 2)	Codebreaking program
20 + Rating	Security program
30 + Rating	Programmer's Suite
20 + (Quality x 2)	Computer system OS

Synergy: Every five ranks you have in Cryptography gives you a +2 synergy bonus to hack into a computer system.

Craft (Int; Technical Proficiency)

The available Craft skills in a Dead Stars campaign are listed below.

* Aircraft (fixed-wing air vehicles, rotary-wing vehicles, and vectored-thrust vehicles).
* Armor (Light, Medium, Heavy, and Powered armor.
* Blasters (Simple, Martial, and Exotic ranged blaster weapons).
* Computers (personal, vehicle, mainframe, cybernetic, and robotic computers).
* Cybernetics (cybernetic implants).
* Electronics (surveillance, counter-surveillance, entertainment, and communication gear).
* Lasers (Simple, Martial, and Exotic ranged laser weapons).
* Medical (surgical supplies, medicines, drugs).
* Melee (Simple, Martial, and Exotic melee weapons).
* Nanotech (nanotech implants, combat nanotech, nanotech tools)
* Poison (making antitoxins and poisons)
* Projectiles (Simple, Martial, and Exotic projectile weapons).
* Ships (space and star craft)
* Slug Throwers (Simple, Martial, and Exotic ranged slug-throwing weapons).
* Survival Gear (space and terrestrial hazardous environment gear).
* Robotics (all types of robots).
* Vehicle Weapons (vehicle-mounted and integral weapon systems).
* Watercraft (surface and submersible vehicles).

Check: Crafting something is a task that takes the regular amount of time (DC x 10 minutes) between checks. For every successful check, you accumulate 1 credit's worth of progress x the check result, and x10 if you were using a workshop. If you roll a 1 on any of these checks, then you instead *lose* 10% of the item's total price in progress. If this would reduce the amount of progress you've made to zero or less, the materials have been wasted and must be replenished. Once the total of all your checks equals the item's price in credits, it is finished. It costs 25% of the finished item's price in materials to Craft it.

The DC to make the various types of items are as follows:

Item	*Craft check DC*
Light Armor	10 + Quality
Medium Armor	15 + Quality
Heavy Armor	20 + Quality
Powered Armor	25 + Quality
Simple Melee Weapon	5 + Quality
Martial Melee Weapon	10 + Quality
Exotic Melee Weapon	15 + Quality
Projectile Firearm	15 + Quality
Slug-Thrower Firearm	15 + Quality
Laser or Blaster Firearm	20 + Quality
Vehicle Weapon	25 + Quality
Computer, Case	20 + Quality
Computer, Pocket	25 + Quality
Computer, Datasheet	25 + (Quality x 2)
Computer, Major	25 + (Quality x 2)
Cybernetics	20 + Quality + Maximum Stress
Electronics	15 + Quality
Medical Items	20 + Quality
Robot (not computer)	25 + Quality
Vehicle	Based on Chassis
Tools	10 + Quality
Nanites	25 + Quality

When Crafting a robot, you are only making it's body. A computer brain needs to be Crafted for it separately, or built into it. Robot schematics only include data on the robot's body, not it's computer.

Multiple people can help make an item, but only if it is a large enough project. For every 50 lbs, or part thereof, the finished item is to weigh, an additional person can work on the item. All folks doing so add their Craft totals together at the end of each work day. Each person needs access to their own toolkit, and applies only the bonus from their own tool's Quality. A Workshop only can provide the x10 multiple to one person, but can count as a toolkit of equal Quality for up to five other workers.

Tools: You cannot Craft something that is of a Quality higher than your tools. You can improvise tools from almost anything, but suffer a -2 (for slightly appropriate tools) or -5 circumstance penalty (for wildly inappropriate tools), and cannot make anything higher than Quality 1. If you are using a toolkit or workshop of an inappropriate type, you have only the -2 circumstance penalty, but do not get to add the Quality of your tools to your Craft check.

Special: You get to add the Quality of your tools to your Craft skill check rolls. In addition to this, if you are using a Workshop then your successful checks make you proceed ten times as fast.

Special: If you have a Schematic for the exact item you are building, you get to apply a +5 bonus to your Craft skill check rolls, and can make an item that is one Quality higher than your tools (see Knowledge skill).

Synergy: For every 5 ranks you have in the appropriate Knowledge skill, you receive a +2 synergy bonus on all Craft checks to make that type of item.

Synergy: For every 5 ranks you have in the Robotics skill, you receive a +2 synergy bonus on all Craft checks to make robots.

Cryptography (Int; Trained Only)

You can encode data so that only someone with the proper key can decode it. You can also decipher coded data.

Check: You make a Cryptography check when you encode data. You get a competence bonus equal to twice the level of the most powerful encryption software you have access to. Anyone who has the proper key can decode the data with a successful Cryptography check (DC 10). If using a computer and Software key, the person can automatically decode the data without making a check. Making this check takes one hour of work.

If you intercept data encoded by someone else, you can try to decode it without the key by making a Cryptography check. Your check result must exceed that of the person who encoded the data. If you have access to codebreaking software, then you get to subtract the rating of the powerful decryption software you have. This is a typical task that takes the regular amount of time (DC x 10 minutes).

Demolitions (Int; Trained Only; Technical Proficiency)

This skill is used to create, set, and detonate explosive devices.

Check: You can use this skill to make explosive devices as if it where a Craft skill. The DC to do so is 15 for projectile explosives, 20 for common explosives, 25 for high-yield devices, and 30 for tactical (i.e. nuclear) devices. Setting such a device for timed or triggered detonation has a DC of 10 for projectile explosives, 15 for common explosives, and 20 for tactical devices. Just plain blowing the thing only requires a simple action once it is set for conditional detonation, or a free action for projectile explosives (i.e. pull the pin and throw it). If you fail the DC to set the explosive, it does not go off when the timer runs down or the condition is met. If you roll a 1, then it goes off immediately. No, you cannot choose to roll a 1.

It takes 1d4 rounds to set a timed explosive, and 2d4 rounds to set a conditional explosive. Launched projectile explosives detonate on impact, and take no time or Demolitions check to set. Grenade-like explosives can be set to detonate on impact as a free action, requiring no Demolitions check to set and taking no time to do so.

Diplomacy (Cha)

Check: You can change the attitudes of others (non-player characters) with a successful Diplomacy check; see the Influencing NPC Attitudes sidebar, below, for basic DCs. In negotiations, participants roll opposed Diplomacy checks, and the winner gains the advantage. Opposed checks also resolve situations when two advocates or diplomats plead opposite cases in a hearing before a third party.

Action: Changing others' attitudes with Diplomacy generally takes at least 1 full minute (10 consecutive full-round actions). In some situations, this time requirement may greatly increase. A rushed Diplomacy check can be made as a full-round action, but you take a –10 penalty on the check.

Initial	*New Attitude*				
Attitude	*Hostile*	*Unfriendly*	*Indifferent*	*Friendly*	*Helpful*
Hostile	below 20	20	25	35	50
Unfriendly	below 5	5	15	25	40
Indifferent	---	below 1	1	15	30
Friendly	---	---	below 1	1	20
Helpful	---	---	---	below 1	1

Try Again: Optional, but not recommended because retries usually do not work. Even if the initial Diplomacy check succeeds, the other character can be persuaded only so far, and a retry may do more harm than good. If the initial check fails, the other character has probably become more firmly committed to his position, and a retry is futile.

Synergy: For every 5 ranks in Bluff, or Sense Motive, you get a +2 bonus on Diplomacy checks.

Disable Device (Int; Trained Only)

Check: The Disable Device check is made secretly, so that you don't necessarily know whether you've succeeded.

The DC depends on how tricky the device is. Disabling (or rigging or jamming) a fairly simple device has a DC of 10; more intricate and complex devices have higher DCs.

If the check succeeds, you disable the device. If it fails by 4 or less, you have failed but can try again. If you fail by 5 or more, something goes wrong. If the device is a trap, you spring it. If you're attempting some sort of sabotage, you think the device is disabled, but it still works normally.

You also can rig simple devices such as wheels and slug-throwers to work normally for a while and then fail or fall off some time later (usually after 1d4 rounds or minutes of use, or on rolling a natural 1 when making an attack or skill check with it).

Complexity	*Time*	*DC*	*Example*
Simple	1 round	10	A hinge or latch.
Basic	1d4 rounds	15	A slug thrower or crossbow.
Average	2d4 rounds	20	A laser pistol.
Greatly	2d4 rounds	25	A ground vehicle.
Highly	4d4 rounds	30	A robot.
Amazingly	6d4 rounds	35	A cybernetic implant.

Action: The amount of time needed to make a Disable Device check depends on the task, as noted above. Disabling a simple device takes 1 round and is a full-round action. An intricate or complex device requires 1d4 or 2d4 rounds.

Try Again: Varies. You can retry if you have missed the check by 4 or less, though you must be aware that you have failed in order to try again.

A character who beats a trap's DC by 10 or more can study the trap, figure out how it works, and bypass it (along with her companions) without disarming it.

Other Ways to Beat a Trap

It's possible to ruin many traps without making a Disable Device check.

Ranged Attack Traps: Once a trap's location is known, the obvious way to ruin it is to smash the mechanism—assuming the mechanism can be accessed. Failing that, it's possible to plug up the holes from which the projectiles emerge. Doing this prevents the trap from firing unless its ammunition does enough damage to break through the plugs.

Melee Attack Traps: These devices can be thwarted by smashing the mechanism or blocking the weapons, as noted above. Alternatively, if a character studies the trap as it triggers, he might be able to time his dodges just right to avoid damage. A character who is doing nothing but studying a trap when it first goes off gains a +4 dodge bonus against its attacks if it is triggered again within the next minute.

Pits: Disabling a pit trap generally ruins only the trapdoor, making it an uncovered pit. Filling in the pit or building a makeshift bridge across it is an application of manual labor, not the Disable Device skill. Characters could neutralize any spikes at the bottom of a pit by attacking them—they break just as daggers do.

Disguise (Cha)

Check: Your Disguise check result determines how good the disguise is, and it is opposed by others' Spot check results. If you don't draw any attention to yourself, others do not get to make Spot checks. If you come to the attention of people who are suspicious (such as a guard who is watching commoners walking through a city gate), it can be assumed that such observers are taking 10 on their Spot checks.

You get only one Disguise check per use of the skill, even if several people are making Spot checks against it. The Disguise check is made secretly, so that you can't be sure how good the result is.

The effectiveness of your disguise depends in part on how much you're attempting to change your appearance.

Disguise	*Modifier*
Minor details only	+5
Disguised as different gender [1]	–2
Disguised as different, but similar, race [1]	–2
Disguised as different age category [1]	–2 [2]

[1] These modifiers are cumulative; use any that apply.

[2] Per step of difference between your actual age category and your disguised age category. The steps are: young (younger than adulthood), adulthood, middle age, old, and venerable.

If you are impersonating a particular individual, those who know what that person looks like get a bonus on their Spot checks according to the table below. Furthermore, they are automatically considered to be suspicious of you, so opposed checks are always called for.

Familiarity	*Spot Bonus*
Recognizes on sight	+4
Friends or associates	+6
Close friends	+8
Intimate	+10

Usually, an individual makes a Spot check to see through your disguise immediately upon meeting you and each hour thereafter. If you casually meet many different creatures, each for a short time, check once per day or hour, using an average Spot modifier for the group.

Action: Creating a disguise requires 1d3×10 minutes of work.

Try Again: Yes. You may try to redo a failed disguise, but once others know that a disguise was attempted, they'll be more suspicious.

Synergy: For every 5 ranks in Bluff, you get a +2 bonus on Disguise checks when you know that you're being observed and you try to act in character.

Escape Artist (Dex; Armor Check Penalty)

Check: The table below gives the DCs to escape various forms of restraints.

Ropes: Your Escape Artist check is opposed by the binder's Use Rope check. Since it's easier to tie someone up than to escape from being tied up, the binder gets a +10 bonus on his or her check.

Manacles and Restraints: The DC for manacles is set by their construction.

Tight Space: It is a DC 30 check to get through a space where your head fits but your shoulders don't. If the space is long you may need to make multiple checks. You can't get through a space that your head does not fit through.

Grappler: You can make an Escape Artist check opposed by your enemy's grapple check to get out of a grapple or out of a pinned condition (so that you're only grappling).

Action: Making an Escape Artist check to escape from rope bindings, manacles, or other restraints (except a grappler) requires 1 minute of work. Escaping from a net is a full-round action. Escaping from a grapple or pin is a standard action. Squeezing through a tight space takes at least 1 minute, maybe longer, depending on how long the space is.

Try Again: Varies. You can make another check after a failed check if you're squeezing your way through a tight space, making multiple checks. If the situation permits, you can make additional checks, or even take 20, as long as you're not being actively opposed.

Synergy: For every 5 ranks in Escape Artist, you get a +2 bonus on Use Rope checks to bind someone.

For every 5 ranks in Use Rope, you get a +2 bonus on Escape Artist checks when escaping from rope bonds.

Forgery (Int)

Check: Forgery requires writing materials appropriate to the document being forged, enough light or sufficient visual acuity to see the details of what you're writing, wax for seals (if appropriate), and some time. To forge a document on which the handwriting is not specific to a person (military orders, a government decree, a business ledger, or the like), you need only to have seen a similar document before, and you gain a +8 bonus on your check. To forge a signature, you need an autograph of that person to copy, and you gain a +4 bonus on the check. To forge a longer document written in the hand of some particular person, a large sample of that person's handwriting is needed.

You can also forge computerized information on a successful Forgery check. Doing so requires the use of a computer, a copy of the file you wish to forge, and time. When forging computer information, your usable ranks in Forgery are limited by your ranks in Computer Use.

The Forgery check is made secretly, so that you're not sure how good your forgery is. As with Disguise, you don't even need to make a check until someone examines the work. Your Forgery check is opposed by the Forgery check of the person who examines the document to check its authenticity. The examiner gains modifiers on his or her check if any of the conditions on the table below exist.

Condition	*Reader's Bonus*
Type of Document known to reader	-2
Type of document somewhat known to reader	+0
Type of document well known to reader	+2
Handwriting not known to reader	-2
Handwriting somewhat known to reader	+0
Handwriting intimately known to reader	+2
Reader only casually reviews the document	-2
Reader is using a Security program on forged data	+(Rating x2)

A document that contradicts procedure, orders, or previous knowledge, or one that requires sacrifice on the part of the person checking the document can increase that character's suspicion (and thus create favorable circumstances for the checker's opposing Forgery check).

Action: Forging a very short and simple document takes about 1 minute. A longer or more complex document takes 1d4 minutes per page.

Try Again: Usually, no. A retry is never possible after a particular reader detects a particular forgery. But the document created by the forger might still fool someone else. The result of a Forgery check for a particular document must be used for every instance of a different reader examining the document. No reader can attempt to detect a particular forgery more than once; if that one opposed check goes in favor of the forger, then the reader can't try using his own skill again, even if he's suspicious about the document.

Restriction: Forgery is language-dependent; thus, to forge documents and detect forgeries, you must be able to read and write the language in question. A barbarian can't learn the Forgery skill unless he has learned to read and write.

Freefall (Dex; Armor Check Penalty; Gravity Check Mod)

Use this skill to maneuver in low- or zero-gravity environments. Even simple movements are challenging in these conditions, and you have to retrain your body to adjust to them.

Check: Any time you're trying to make any kind of complicated move or action in low or zero gravity, you must make a Freefall check. Attacks with all but energy weapons (lasers and blasters) require this check, as do Reflex saving throws. The check does not determine your success or failure (though other skill checks, ability checks, attack rolls, or saving throws may). The Freefall check simply determines what happens to you after you attempt the maneuver. The skill check does not require an action, though the specific maneuver might.

If the check is successful, you're able to control your position and motion and can continue to act normally. The table below lists the variety of situations and corresponding DCs.

DC	Situation
10	Made a failed melee attack.
15	Made a successful melee attack.
15	Tumble check, not moving through an enemy's square.
15 + Str	Struck by a melee attack; add opponent's Str mod.
20	Made a non-energy range attack.
20	Struck by a non-energy ranged attack.
25	Tumble check, moving through an enemy's square.
-5	Braced solidly or anchored.

If you fail the check then you spin about uncontrollably. While doing so you lose your Dex bonus, suffer a –4 penalty to your Defense Class, and suffer a –4 circumstance penalty to your attack rolls. As a move-equivalent action you an try to stop spinning by making a Freefall check against the original DC. While spinning you have a –2 cumulative penalty on all further Freefall checks.

Synergy: Every 5 ranks in Balance provides a +2 bonus to Freefall checks.

Gather Information (Cha)

Check: An evening's time, a few gold pieces for buying drinks and making friends, and a DC 10 Gather Information check get you a general idea of a city's major news items, assuming there are no obvious reasons why the information would be withheld. The higher your check result, the better the information.

If you want to find out about a specific rumor, or a specific item, or obtain a map, or do something else along those lines, the DC for the check is 15 to 25, or even higher.

Action: A typical Gather Information check takes 1d4+1 hours.

Try Again: Yes, but it takes time for each check. Furthermore, you may draw attention to yourself if you repeatedly pursue a certain type of information.

Synergy: For every 5 ranks in Knowledge (local), you get a +2 bonus on Gather Information checks.

Handle Animal (Cha; Trained Only)

Check: The DC depends on what you are trying to do.

Handle an Animal: This task involves commanding an animal to perform a task or trick that it knows. If the animal is wounded or has taken any nonlethal damage or ability score damage, the DC increases by 2. If your check succeeds, the animal performs the task or trick on its next action.

"Push" an Animal: To push an animal means to get it to perform a task or trick that it doesn't know but is physically capable of performing. This category also covers making an animal perform a forced march or forcing it to hustle for more than 1 hour between sleep cycles. If the animal is wounded or has taken any nonlethal damage or ability score damage, the DC increases by 2. If your check succeeds, the animal performs the task or trick on its next action.

Teach an Animal a Trick: You can teach an animal a specific trick with one week of work and a successful Handle Animal check against the indicated DC. An animal with an Intelligence score of 1 can learn a maximum of three tricks, while an animal with an Intelligence score of 2 can learn a maximum of six tricks. Possible tricks (and their associated DCs) include, but are not necessarily limited to, the following.

Attack (DC 20): The animal attacks apparent enemies. You may point to a particular creature that you wish the animal to attack, and it will comply if able. Normally, an animal will attack only humanoids, monstrous humanoids, giants, or other animals. Teaching an animal to attack all creatures (including such unnatural creatures as undead and aberrations) counts as two tricks.

Come (DC 15): The animal comes to you, even if it normally would not do so.

Defend (DC 20): The animal defends you (or is ready to defend you if no threat is present), even without any command being given. Alternatively, you can command the animal to defend a specific other character.

Down (DC 15): The animal breaks off from combat or otherwise backs down. An animal that doesn't know this trick continues to fight until it must flee (due to injury, a fear effect, or the like) or its opponent is defeated.

Fetch (DC 15): The animal goes and gets something. If you do not point out a specific item, the animal fetches some random object.

Guard (DC 20): The animal stays in place and prevents others from approaching.

Heel (DC 15): The animal follows you closely, even to places where it normally wouldn't go.

Perform (DC 15): The animal performs a variety of simple tricks, such as sitting up, rolling over, roaring or barking, and so on.

Seek (DC 15): The animal moves into an area and looks around for anything that is obviously alive or animate.

Stay (DC 15): The animal stays in place, waiting for you to return. It does not challenge other creatures that come by,
though it still defends itself if it needs to.

Track (DC 20): The animal tracks the scent presented to it. (This requires the animal to have the scent ability)

Work (DC 15): The animal pulls or pushes a medium or heavy load.

Train an Animal for a Purpose: Rather than teaching an animal individual tricks, you can simply train it for a general purpose. Essentially, an animal's purpose represents a pre-selected set of known tricks that fit into a common scheme, such as guarding or heavy labor. The animal must meet all the normal prerequisites for all tricks included in the training package. If the package includes more than three tricks, the animal must have an Intelligence score of 2.

An animal can be trained for only one general purpose, though if the creature is capable of learning additional tricks (above and beyond those included in its general purpose), it may do so. Training an animal for a purpose requires fewer checks than teaching individual tricks does, but no less time.

Combat Riding (DC 20): An animal trained to bear a rider into combat knows the tricks attack, come, defend, down, guard, and heel. Training an animal for combat riding takes six weeks. You may also "upgrade" an animal

trained for riding to one trained for combat riding by spending three weeks and making a successful DC 20 Handle Animal check. The new general purpose and tricks completely replace the animal's previous purpose and any tricks it once knew. Warhorses and riding dogs are already trained to bear riders into combat, and they don't require any additional training for this purpose.

Fighting (DC 20): An animal trained to engage in combat knows the tricks attack, down, and stay. Training an animal for fighting takes three weeks.

Guarding (DC 20): An animal trained to guard knows the tricks attack, defend, down, and guard. Training an animal for guarding takes four weeks.

Heavy Labor (DC 15): An animal trained for heavy labor knows the tricks come and work. Training an animal for heavy labor takes two weeks.

Hunting (DC 20): An animal trained for hunting knows the tricks attack, down, fetch, heel, seek, and track. Training an animal for hunting takes six weeks.

Performance (DC 15): An animal trained for performance knows the tricks come, fetch, heel, perform, and stay. Training an animal for performance takes five weeks.

Riding (DC 15): An animal trained to bear a rider knows the tricks come, heel, and stay. Training an animal for riding takes three weeks.

Rear a Wild Animal: To rear an animal means to raise a wild creature from infancy so that it becomes domesticated. A handler can rear as many as three creatures of the same kind at once.

A successfully domesticated animal can be taught tricks at the same time it's being raised, or it can be taught as a domesticated animal later.

Action: Varies. Handling an animal is a move action, while pushing an animal is a full-round action. (A druid or ranger can handle her animal companion as a free action or push it as a move action.) For tasks with specific time frames noted above, you must spend half this time (at the rate of 3 hours per day per animal being handled) working toward completion of the task before you attempt the Handle Animal check. If the check fails, your attempt to teach, rear, or train the animal fails and you need not complete the teaching, rearing, or training time. If the check succeeds, you must invest the remainder of the time to complete the teaching, rearing, or training. If the time is interrupted or the task is not followed through to completion, the attempt to teach, rear, or train the animal automatically fails.

Try Again: Yes, except for rearing an animal.

Special: You can use this skill on a creature with an Intelligence score of 1 or 2 that is not an animal, but the DC of any such check increases by 5. Such creatures have the same limit on tricks known as animals do.

Untrained: If you have no ranks in Handle Animal, you can use a Charisma check to handle and push domestic animals, but you can't teach, rear, or train animals. A druid or ranger with no ranks in Handle Animal can use a Charisma check to handle and push her animal companion, but she can't teach, rear, or train other non-domestic animals.

Heal (Wis)

Check: The DC and effect depend on the task you attempt.

First Aid (DC 15): You usually use first aid to save a dying character. If a character has negative Hit Points and is losing Hit Points (at the rate of 1 per round, 1 per hour, or 1 per day), you can make him or her stable. A stable character regains no Hit Points but stops losing them.

Long-Term Care (DC 15): Providing long-term care means treating a wounded person for a day or more. If your Heal check is successful, the patient recovers Hit Points or ability score points (lost to ability damage) at twice the normal rate: 2 Hit Points per full 8 hours of rest in a day, or 4 Hit Points per full day of complete rest; 2 ability score points for a full 8 hours of rest in a day, or 4 ability score points for each full day of complete rest.

You can tend as many as six patients at a time. You need a few items and supplies (bandages, salves, and so on) that are easy to come by in settled lands. Giving long-term care counts as light activity for the healer. You cannot give long-term care to yourself.

Treat Poison (Poison's DC): To treat poison means to tend a single character who has been poisoned and who is going to take more damage from the poison (or suffer some other effect). Every time the poisoned character makes a saving throw against the poison, you make a Heal check. The poisoned character uses your check result or his or her saving throw, whichever is higher.

Treat Disease (Disease's DC): To treat a disease means to tend a single diseased character. Every time he or she makes a saving throw against disease effects, you make a Heal check. The diseased character uses your check result or his or her saving throw, whichever is higher.

Surgery: Characters with the Surgery feat can also use their Heal skill to perform operations. An operation takes the regular task time, and deals Hit Point damage. Surgeries also require a set amount of disposable medical supplies to perform. If the character performing the operation fails his heal check, then the operations failed. It takes the same amount of time, and still deals damage. If he failed by rolling a natural 1, then he deals DOUBLE damage! They types of operations are:

Implant Cybernetics: This surgery is used to incorporate a cybernetic device into a creature. The DC for the surgery is 10 + the device's maximum Stress + it's Quality. The surgery deals Hit Point damage equal to the device's Stress roll, *without* modifiers. A surgeon implanting a cybernetic device can cause the Stress of the device on it's host to be reduced by integrating it into his system easier. For every full five points he exceeds the DC by, the device's Stress is reduced by one (to a minimum of 1). This surgery costs 1,000 credits worth of medical goods per point of the device's normal maximum Stress. The same surgery can be used to make a single Repair check on an implanted piece of cyberware, remove it permanently, or to switch it with another of the same type.

Ability Score Drain Recovery: This procedure to try and heal ability *drain* requires a Heal check with a DC equal to 20 + the amount of ability *drain* for the ability score being repaired. Every full five points this DC is

passed by changes one point of ability drain to ability damage. This operation also deals 1d6 Hit Points of damage to the subject, and costs 1,000 credits in consumed medical supplies.

Action: Providing first aid, treating a wound, or treating poison is a standard action. Treating a disease takes 10 minutes of work. Providing long-term care requires 8 hours of light activity.

Try Again: Varies. Generally speaking, you can't try a Heal check again without proof of the original check's failure. You can always retry a check to provide first aid, assuming the target of the previous attempt is still alive.

Hide (Dex; Armor Check Penalty)

Check: Your Hide check is opposed by the Spot check of anyone who might see you. You can move up to one-half your normal speed and hide at no penalty. When moving at a speed greater than one-half but less than your normal speed, you take a –5 penalty. It's practically impossible (–20 penalty) to hide while attacking, running or charging.

A creature larger or smaller than Medium takes a size bonus or penalty on Hide checks depending on its size category: Fine +16, Diminutive +12, Tiny +8, Small +4, Large –4, Huge –8, Gargantuan –12, Colossal –16.

You need cover or concealment in order to attempt a Hide check. Total cover or total concealment usually (but not always; see Special, below) obviates the need for a Hide check, since nothing can see you anyway.

If people are observing you, even casually, you can't hide. You can run around a corner or behind cover so that you're out of sight and then hide, but the others then know at least where you went.

If your observers are momentarily distracted (such as by a Bluff check; see below), though, you can attempt to hide. While the others turn their attention from you, you can attempt a Hide check if you can get to a hiding place of some kind. (As a general guideline, the hiding place has to be within 1 foot per rank you have in Hide.) This check, however, is made at a –10 penalty because you have to move fast.

Sniping: If you've already successfully hidden at least 10 feet from your target, you can make one ranged attack, then immediately hide again. You take a –20 penalty on your Hide check to conceal yourself after the shot.

Creating a Diversion to Hide*:* You can use Bluff to help you hide. A successful Bluff check can give you the momentary diversion you need to attempt a Hide check while people are aware of you.

Action: Usually none. Normally, you make a Hide check as part of movement, so it doesn't take a separate action. However, hiding immediately after a ranged attack (see Sniping, above) is a move action.

Special: If you are invisible, you gain a +40 bonus on Hide checks if you are immobile, or a +20 bonus on Hide checks if you're moving.

Intimidate (Cha)

Check: You can change another's behavior with a successful check. Your Intimidate check is opposed by the target's (Base Attack bonus + Will save). If you beat your target's check result, you may treat the target as friendly, but only for the purpose of actions taken while it remains intimidated. (That is, the target retains its normal attitude, but will chat, advise, offer limited help, or advocate on your behalf while intimidated. See the Diplomacy skill, above, for additional details.) The effect lasts as long as the target remains in your presence, and for 1d6×10 minutes afterward. After this time, the target's default attitude toward you shifts to unfriendly (or, if normally unfriendly, to hostile).

If you fail the check by 5 or more, the target provides you with incorrect or useless information, or otherwise frustrates your efforts.

Demoralize Opponent: You can also use Intimidate to weaken an opponent's resolve in combat. To do so, make an Intimidate check opposed by the target's modified level check (see above). If you win, the target becomes shaken for 1 round. A shaken character takes a –2 penalty on attack rolls, ability checks, and saving throws. You can intimidate only an opponent that you threaten in melee combat and that can see you.

Action: Varies. Changing another's behavior requires 1 minute of interaction. Intimidating an opponent in combat is a standard action.

Try Again: Optional, but not recommended because retries usually do not work. Even if the initial check succeeds, the other character can be intimidated only so far, and a retry doesn't help. If the initial check fails, the other character has probably become more firmly resolved to resist the intimidator, and a retry is futile.

Special: You gain a +4 bonus on your Intimidate check for every size category that you are larger than your target. Conversely, you take a –4 penalty on your Intimidate check for every size category that you are smaller than your target.

A character immune to fear can't be intimidated, nor can non-intelligent creatures.

Synergy: For every 5 ranks in Bluff, you get a +2 bonus on Intimidate checks.

Jump (Str; Armor Check Penalty)

Check: The DC and the distance you can cover vary according to the type of jump you are attempting (see below).

Your Jump check is modified by your speed. If your speed is 30 feet then no modifier based on speed applies to the check. If your speed is less than 30 feet, you take a –6 penalty for every 10 feet of speed less than 30 feet. If your speed is greater than 30 feet, you gain a +4 bonus for every 10 feet beyond 30 feet.

All Jump DCs given here assume that you get a running start, which requires that you move at least 20 feet in a straight line before attempting the jump. If you do not get a running start, the DC for the jump is doubled.

Distance moved by jumping is counted against your normal maximum movement in a round.

If you have ranks in Jump and you succeed on a Jump check, you land on your feet (when appropriate). If

you attempt a Jump check untrained, you land prone unless you beat the DC by 5 or more.

Long Jump: A long jump is a horizontal jump, made across a gap like a chasm or stream. At the midpoint of the jump, you attain a vertical height equal to one-quarter of the horizontal distance. The DC for the jump is equal to the distance jumped (in feet).

If your check succeeds, you land on your feet at the far end. If you fail the check by less than 5, you don't clear the distance, but you can make a DC 15 Reflex save to grab the far edge of the gap. You end your movement grasping the far edge. If that leaves you dangling over a chasm or gap, getting up requires a move action and a DC 15 Climb check.

High Jump: A high jump is a vertical leap made to reach a ledge high above or to grasp something overhead. The DC is equal to 4 times the distance to be cleared.

If you jumped up to grab something, a successful check indicates that you reached the desired height. If you wish to pull yourself up, you can do so with a move action and a DC 15 Climb check. If you fail the Jump check, you do not reach the height, and you land on your feet in the same spot from which you jumped. As with a long jump, the DC is doubled if you do not get a running start of at least 20 feet.

Obviously, the difficulty of reaching a given height varies according to the size of the character or creature. The maximum vertical reach (height the creature can reach without jumping) for an average creature of a given size is equal to: 1/2 ft for Fine, 1 ft for Diminutive, 2 ft for Tiny, 4 ft for Small, 8 ft for Medium, 16 ft for Large, 32 ft for Huge, 64 ft for Gargantuan, and 128 ft for Colossal. Quadruped creatures don't have the same vertical reach as a bipedal creature; treat them as being one size category smaller.

Hop Up: You can jump up onto an object as tall as your waist, such as a table or small boulder, with a DC 10 Jump check. Doing so counts as 10 feet of movement, so if your speed is 30 feet, you could move 20 feet, then hop up onto a counter. You do not need to get a running start to hop up, so the DC is not doubled if you do not get a running start.

Jumping Down: If you intentionally jump from a height, you take less damage than you would if you just fell. The DC to jump down from a height is 15. You do not have to get a running start to jump down, so the DC is not doubled if you do not get a running start.

If you succeed on the check, you take falling damage as if you had dropped 10 fewer feet than you actually did.

Action: None. A Jump check is included in your movement, so it is part of a move action. If you run out of movement mid-jump, your next action (either on this turn or, if necessary, on your next turn) must be a move action to complete the jump.

Special: Effects that increase your movement also increase your jumping distance, since your check is modified by your speed.

If you have the Run feat, you get a +4 bonus on Jump checks for any jumps made after a running start.

Synergy: For every 5 ranks in Tumble, you get a +2 bonus on Jump checks.

For every 5 ranks in Jump, you get a +2 bonus on Tumble checks.

Synergy: If you have 5 ranks in Jump you receive a +2 synergy bonus to all Freefall checks.

Knowledge (Int; Trained Only)

The Knowledge skills most common in the Dead Stars campaign are:

* Biology (xenobiology, poisons and antidotes, medical conditions, medicines and treatments).
* Chemistry (periodic table of elements, molecular composition, chemical properties).
* History (ancient civilizations and events, space colonization patterns, past interstellar events).
* Local (legends, personalities, inhabitants, laws, and traditions; chosen by planet or settlement).
* Nature (plants and animals, seasons and cycles, weather).
* Necrol (ships, methods, biology, technology, history).
* Physics (thermodynamic laws, laws of motion, electromagnetic theory, radiation laws, laws of force).
* Psionics (history, abilities, limits, practitioners).
* Space (systems of interest, stellar topography, travel routes, hazards).

Check: Answering a question within your field of study has a DC of 10 (for really easy questions), 15 (for basic questions), or 20 to 30 (for really tough questions).

In many cases, you can use this skill to identify monsters and their special powers or vulnerabilities. In general, the DC of such a check equals 10 + the monster's HD. A successful check allows you to remember a bit of useful information about that monster.

For every 5 points by which your check result exceeds the DC, you recall another piece of useful information.

Action: Usually none. In most cases, making a Knowledge check doesn't take an action—you simply know the answer or you don't.

Try Again: No. The check represents what you know, and thinking about a topic a second time doesn't let you know something that you never learned in the first place.

Untrained: An untrained Knowledge check is simply an Intelligence check. Without actual training, you know only common knowledge (DC 10 or lower).

Schematics: A character can take the time to use an appropriate Knowledge skill to design a device, generating a Schematic. This takes either 1 credit for every 1,000 credits of the finished device's price in materials, or a Design program with a rating at least equal to the Quality of the device the Schematic is for. This is done by making a Knowledge check as if it where a Craft check. The DC is the same as the Craft DC of the item. Modifiers to the Craft skill do not apply to these checks, but the character gets to add the rating of any Design program he is using, as well as a +2 synergy bonus for every five ranks in the appropriate Craft skill he has. Once the total of all the checks equals 1/1,000th the finished item's credit cost, the schematic is done. Schematics provide a +5 competence bonus to build the exact device it is for, and allow a device to be built using tools of one lower Quality than the device itself.

Synergy: Every 5 ranks in Knowledge (biology) provides a +2 bonus to Heal checks. Every 5 ranks in Knowledge (chemistry) provides a +2 synergy bonus to Demolitions checks for making explosives. Every 5 ranks in Knowledge (local) provides a +2 bonus to Gather Information and Street Smarts checks in that area. Every 5 ranks in Knowledge (psionics) provides a +2 synergy bonus to Fetching, Psychokinesis, and Telepathy skill checks. Every 5 ranks in Knowledge (space) provides a +2 synergy bonus to Astrogation checks.

Listen (Wis)

Check: Your Listen check is either made against a DC that reflects how quiet the noise is that you might hear, or it is opposed by your target's Move Silently check.

DC	*Sound*
-10	A battle
0	People talking [1]
5	A person in medium armor walking at a slow pace (10 ft./round) trying not to make any noise.
10	An unarmored person walking at a slow pace (15 ft./round) trying not to make any noise
15	A 1st-level rogue using Move Silently to sneak past the listener
15	People whispering [1]
19	A cat stalking
30	An owl gliding in for a kill

1 If you beat the DC by 10 or more, you can make out what's being said, assuming that you understand the language.

DC Mod	*Condition*
+5	Through a door
+15	Through a stone wall
-1	Per 10 ft of distance
-5	Listener distracted

In the case of people trying to be quiet, the DCs given on the table could be replaced by Move Silently checks, in which case the indicated DC would be their average check result.

Action: Varies. Every time you have a chance to hear something in a reactive manner (such as when someone makes a noise or you move into a new area), you can make a Listen check without using an action. Trying to hear something you failed to hear previously is a move action.

Try Again: Yes. You can try to hear something that you failed to hear previously with no penalty.

Special: When several characters are listening to the same thing, a single 1d20 roll can be used for all the individuals' Listen checks.

A fascinated creature takes a –4 penalty on Listen checks made as reactions.

If you have the Alertness feat, you get a +2 bonus on Listen checks.

A sleeping character may make Listen checks at a –10 penalty. A successful check awakens the sleeper.

Move Silently (Dex; Armor Check Penalty)

Check: Your Move Silently check is opposed by the Listen check of anyone who might hear you. You can move up to one-half your normal speed at no penalty. When moving at a speed greater than one-half but less than your full speed, you take a –5 penalty. It's practically impossible (–20 penalty) to move silently while running or charging.

Surface	*Modifier*
Noisy (scree, shallow or deep bog, undergrowth, dense rubble)	-2
Very noisy (dense undergrowth, deep snow)	-5

Noisy surfaces, such as bogs or undergrowth, are tough to move silently across. When you try to sneak across such a surface, you take a penalty on your Move Silently check as indicated below.

Action: None. A Move Silently check is included in your movement or other activity, so it is part of another action.

Open Lock (Dex; Trained Only)

Attempting an Open Lock check without a set of thieves' tools imposes a –2 circumstance penalty on the check, even if a simple tool is employed. If you use masterwork thieves' tools, you gain a +2 circumstance bonus on the check.

Check: The DC for opening a lock varies from 20 to 40, depending on the Quality and sophistication of the lock. The DC equals the 10 + the lock's Quality if it is of Simple complexity (a bar across a door), and goes up by +5 for every complexity it is above Simple.

Action: Opening a lock is a full-round action.

Special: If you are trying to bypass an electronic lock, you need to have the Technical Proficiency feat..

Untrained: You cannot pick locks untrained, but you might successfully force them open.

Perform (Cha)

Like Craft, Knowledge, and Profession, Perform is actually a number of separate skills.

You could have several Perform skills, each with its own ranks, each purchased as a separate skill.

Each of the nine categories of the Perform skill includes a variety of methods, instruments, or techniques, a small list of which is provided for each category below:

- Act (comedy, drama, mime)
- Comedy (buffoonery, limericks, joke-telling)
- Dance (ballet, waltz, jig)
- Keyboard instruments (harpsichord, piano, pipe organ)
- Oratory (epic, ode, storytelling)
- Percussion instruments (bells, chimes, drums, gong)
- String instruments (fiddle, harp, lute, mandolin)
- Wind instruments (flute, pan pipes, recorder, clarinet, trumpet)
- Sing (ballad, chant, melody)

A masterwork musical instrument gives you a +2 circumstance bonus on Perform checks that involve its use.

Check: A perform check requires at lest a total of 10 to avoid being heckled off stage (or worse in some systems). So long as the check was at least 10, the performer doesn't anger the crowd. For every full five points he exceeded DC 10, he gains tips and gratuities the equal of 1d6 credits for the hour.

Masters of their art (those with skill totals of at least +20) can put on shows for the entertainment of large groups of people, or specific wealthy patrons. If they make a successful DC 25 check, their show is pleasing but not spectacular enough to warrant anything but the normal amount for an hour's performance. If they make DC 30, the show gains them 4d6 x100 credits! This amount goes up by 25% for every full five points they exceed DC 30. It takes a full 10 days to organize a show, and at least one hour to perform it. Organizing a show costs 1d6 x 25 credits for bribes, advertising, and props.

Action: Varies. Trying to earn money by playing in public requires an hour's work at performing. Attempting to please somebody with your performance could take anywhere from a couple minutes, to a few hours depending on what you are performing.

Try Again: Yes. Retries are allowed, but they don't negate previous failures, and an audience that has been unimpressed in the past is likely to be prejudiced against future performances. (Increase the DC by 2 for each previous failure.)

In addition to using the Perform skill, you can entertain people with sleight of hand, tumbling, tightrope walking, and spells (especially illusions).

Pilot (Dex; Armor Check Penalty; Gravity Check Modifier; Technical Proficiency)

Use this skill to operate any kind of motorized vehicle. The same skill applies to ground vehicles, watercraft, hovercraft, aircraft, and spacecraft. However, you need specific feats to use this skill effectively with specialized vehicle types, such as aircraft and spacecraft.

Check: You don't have to make a Pilot check every time you drive down the street. You only have to make a check when you're operating a vehicle in extraordinary conditions – such as a chase or combat – or attempting a difficult maneuver.

See The Vehicles section for more information.

Profession (Wis; Trained Only)

Like Craft, Knowledge, and Perform, Profession is actually a number of separate skills. You could have several Profession skills, each with its own ranks, each purchased as a separate skill. While a Craft skill represents ability in creating or making an item, a Profession skill represents an aptitude in a vocation requiring a broader range of less specific knowledge.

Check: You can practice your trade and make a decent living, earning about half your Profession check result in gold pieces per week of dedicated work. You know how to use the tools of your trade, how to perform the profession's daily tasks, how to supervise helpers, and how to handle common problems.

Action: Not applicable. A single check generally represents a week of work.

Try Again: Varies. An attempt to use a Profession skill to earn an income cannot be retried. You are stuck with whatever weekly wage your check result brought you. Another check may be made after a week to determine a new income for the next period of time. An attempt to accomplish some specific task can usually be retried.

Untrained: Untrained laborers and assistants (that is, characters without any ranks in Profession) earn an average of 1 credit per day.

Remote Operation (Int; Technical Proficiency)

This skill is used in the same manner as the Pilot skill, only it allows for remote operation of a vehicle or robot.

If being used to control a robot remotely, your highest skill total you can use with the robot equals your skill total with Remote Operation.

Repair (Int; Trained Only; Technical Proficiency)

Use this skill to perform maintenance, upgrades, modifications, and repairs to a wide variety of technological equipment and devices. You may not know how to build an engine from scratch, but you can improve or fix an existing one.

Check: The DC for this skill is based on the DC to make the item with a Craft check, modified by the availability of spare parts. Increase the DC by +5 if you can substitute for the right parts, +10 if have make-do parts, and by +15 if all you have are totally inappropriate parts. If you have nothing at all then tough luck. Right parts cost 15% of the item's market price, substitution parts cost 10%, and make-do parts cost 5%. It takes an amount of time equal to the DC multiplied by three minutes to make a Repair check.

A simple Repair check, used for temporarily malfunctioning items, has a base DC of 10 and can be performed without parts at a DC of 30.

If the Repair check was successful, a malfunctioning item resumes normal operation. If the Repair check roll was a 1, make another Repair check immediately. If this Repair check fails as well, then the item is irreparably trashed. It can be used as parts for another item, however. Such busted items have a parts value equal to 15% of their original market price.

If the device you're working on has suffered Hit Point damage, you can restore them with a successful Repair check. A successful Repair check on such an item restores 1d8 Hit Points, plus the amount by which the DC was exceeded. An item reduced to zero Hit Points is destroyed and cannot be repaired. Damaged armor can be repaired, restoring Damage Threshold points as if they were lost Hit Points. Each such Repair check costs materials equal in value to 1% of the items' regular price.

It takes 10 minutes per point of DC to make a Repair check.

Sabotage: Repairing sabotage requires an opposed check against the result of the Disable Device check the saboteur made when rigging the device. If you have to improvise the proper parts for the repair, you suffer a –2 circumstance penalty.

Retry: Yes, as long as the device is still in one piece. Each attempt requires additional time and materials.

Synergy: For every five ranks in the appropriate Craft skill you get a +2 synergy bonus to your Repair checks when fixing that type of item.

Research (Wis)

The galaxy is awash in a vast sea of information, and sifting through it and finding specific data can be real challenging. Use this skill to find a specific reference in a library or search a computer database for the information you need.

If you have access to a global network, you have a vast repository of information at your fingertips. If you make a Research check, you can find data on a dizzying variety of subjects, both obscure and mundane. Sources available to you include news sites, scientific and technical databases, gossip and conspiracy forums, historical archives, entertainment and media sites, and much more.

Check: Use this skill when looking for information in a library or database. Collecting information from people requires the Gather Information skill.

Research DCs are based on the type of information you're seeking, use the table below as a guideline. They're also affected by the quality of the library or database you're working with and the subjects they cover.

DC	*Question*
10	Simple question, from library or database specializing in that subject
15	Simple question, from general-use library or database
20	Obscure question, from library or database specializing in that subject
25	Obscure question, from general-use library or database
+5	Poorly organized library or database
+10	Unorganized library or database

It takes one minute per point of DC to search a database, one hour per point of DC if searching a library (which are actual hardcopy!). This time does not have to be consecutive.

Your DM determines the details and specifics of the information your research uncovers. Usually the information is clear and direct. However, even if you get a high check result, the research cannot turn up information that's not in the database or library you're using.

The DM should make the skill check himself. If a 1 is rolled, the DM makes the check again. If this second check also fails, the DM should give you inaccurate information from the database. Its up to the DM to determine the exact nature of this mistaken information.

Note that information – especially information in a conventional library or archive – can quickly become dated. What was once a fact may not be any longer.

Retry: If you fail with a particular question, you must wait until you gain another rank in Research before you can search the same source for the information again. However, you can try as many similar questions or different sources as you like.

Special: You must have the Technical Proficiency feat to use electronic information networks.

Synergy: For every 5 ranks in a Knowledge skill relevant to the information you're seeking, you get a +2 synergy bonus on your Research checks.

Robotics (Int; Technical Proficiency)

Use this skill to operate complex or specialized robots, and to both design and program them.

Check: To give an order to most robots, you don't need to make a skill check. Robots designed for regular civilian use are extremely user friendly. You need this skill if you want to attempt an advanced task, such as programming a robot, or designing one.

DC	*Task*
10 + Quality	Design a basic robot
20 + Quality	Design a combat robot
30 + Quality	Design a character-equivalent robot
15 + (Rating x 2)	Robotic OS
15	Simple Weapons Program (must have feat)
20	Martial Weapons Program (must have feat)
20 + Ranks	Robot Skill program (Int, Dex, Str, and Wis linked only; limited by your ranks in Computer Use and that skill)

Retry: Depending on the situation, you can retry as often as you like. However, if you're trying to crack a computer file and you miss your check by 10 or more, you set off the computer's security system. Your DM determines the result. It can range from locking your access point out of the system to sounding an alarm.

Special: You get to add the level of your Programmer's Suite program and the Complexity of your computer as a circumstance bonus to your programming checks.

Synergy: For every 5 ranks in Computer Use, you have a +2 bonus to make a robotic program.

Synergy: For every 5 ranks in Robotics, you have a +2 bonus to Repair checks to fix robots.

Synergy: For every 5 ranks in Robotics, you have a +2 bonus to Craft (robotics) checks.

Search (Int)

Check: You generally must be within 10 feet of the object or surface to be searched. The table below gives DCs for typical tasks involving the Search skill.

Action: It takes a full-round action to search a 5-foot-by-5-foot area or a volume of goods 5 feet on a side.

Synergy: For every 5 ranks in Search, you get a +2 bonus on Survival checks to find or follow tracks.

Restriction: While anyone can use Search to find a trap whose DC is 20 or lower, only a rogue can use Search to locate traps with higher DCs.

Sense Motive (Wis)

Check: A successful check lets you avoid being bluffed (see the Bluff skill). You can also use this skill to determine when "something is up" (that is, something odd is going on) or to assess someone's trustworthiness.

Hunch: This use of the skill involves making a gut assessment of the social situation. You can get the feeling from another's behavior that something is wrong, such as when you're talking to an impostor. Alternatively, you can get the feeling that someone is trustworthy.

Discern Secret Message: You may use Sense Motive to detect that a hidden message is being transmitted via the Bluff skill. In this case, your Sense Motive check is opposed by the Bluff check of the character transmitting the message. For each piece of information relating to the message that you are missing, you take a –2 penalty on your Sense Motive check. If you succeed by 4 or less, you know that something hidden is being communicated, but you can't learn anything specific about its content. If you beat the DC by 5 or more, you intercept and understand the message. If you fail by 4 or less, you don't detect any hidden communication. If you fail by 5 or more, you infer some false information.

Action: Trying to gain information with Sense Motive generally takes at least 1 minute, and you could spend a whole evening trying to get a sense of the people around you.

Try Again: No, though you may make a Sense Motive check for each Bluff check made against you.

Synergy: For every 5 ranks in Sense Motive, you get a +2 bonus on Diplomacy checks.

Sleight of Hand (Dex; Trained Only; Armor Check Penalty)

Check: A DC 10 Sleight of Hand check lets you palm a coin-sized, unattended object. Performing a minor feat of legerdemain, such as making a coin disappear, also has a DC of 10 unless an observer is determined to note where the item went.

When you use this skill under close observation, your skill check is opposed by the observer's Spot check. The observer's success doesn't prevent you from performing the action, just from doing it unnoticed.

You can hide a small object (including a light weapon or an easily concealed ranged weapon, such as a dart, sling, or hand crossbow) on your body. Your Sleight of Hand check is opposed by the Spot check of anyone observing you or the Search check of anyone frisking you. In the latter case, the searcher gains a +4 bonus on the Search check, since it's generally easier to find such an object than to hide it. A dagger is easier to hide than most light weapons, and grants you a +2 bonus on your Sleight of Hand check to conceal it. An extraordinarily small object, such as a coin, shuriken, or ring, grants you a +4 bonus on your Sleight of Hand check to conceal it, and heavy or baggy clothing (such as a cloak) grants you a +2 bonus on the check.

Drawing a hidden weapon is a standard action and doesn't provoke an attack of opportunity.

If you try to take something from another creature, you must make a DC 20 Sleight of Hand check to obtain it. The opponent makes a Spot check to detect the attempt, opposed by the same Sleight of Hand check result you achieved when you tried to grab the item. An opponent who succeeds on this check notices the attempt, regardless of whether you got the item.

You can also use Sleight of Hand to entertain an audience as though you were using the Perform skill. In such a case, your "act" encompasses elements of legerdemain, juggling, and the like.

Action: Any Sleight of Hand check normally is a standard action. However, you may perform a Sleight of Hand check as a free action by taking a –20 penalty on the check.

Try Again: Yes, but after an initial failure, a second Sleight of Hand attempt against the same target (or while you are being watched by the same observer who noticed your previous attempt) increases the DC for the task by 10.

Synergy: For every 5 ranks in Bluff, you get a +2 bonus on Sleight of Hand checks.

Untrained: An untrained Sleight of Hand check is simply a Dexterity check. Without actual training, you can't succeed on any Sleight of Hand check with a DC higher than 10, except for hiding an object on your body.

Spot (Wis)

Check: The Spot skill is used primarily to detect characters or creatures who are hiding. Typically, your Spot check is opposed by the Hide check of the creature trying not to be seen. Sometimes a creature isn't intentionally hiding but is still difficult to see, so a successful Spot check is necessary to notice it.

A Spot check result higher than 20 generally lets you become aware of an invisible creature near you, though you can't actually see it.

Spot is also used to detect someone in disguise (see the Disguise skill), and to read lips when you can't hear or understand what someone is saying.

Spot checks may be called for to determine the distance at which an encounter begins. A penalty applies on such checks, depending on the distance between the two individuals or groups, and an additional penalty may apply if the character making the Spot check is distracted (not concentrating on being observant).

Read Lips: To understand what someone is saying by reading lips, you must be within 30 feet of the speaker, be able to see him or her speak, and understand the speaker's language. (This use of the skill is language-dependent.) The base DC is 15, but it increases for complex speech or an inarticulate speaker. You must maintain a line of sight to the lips being read.

If your Spot check succeeds, you can understand the general content of a minute's worth of speaking, but you usually still miss certain details. If the check fails by 4 or less, you can't read the speaker's lips. If the check fails by 5 or more, you draw some incorrect conclusion about the speech. The check is rolled secretly in this case, so that you don't know whether you succeeded or missed by 5.

Action: Varies. Every time you have a chance to spot something in a reactive manner you can make a Spot check without using an action. Trying to spot something you failed to see previously is a move action. To read lips, you must concentrate for a full minute before making a Spot check, and you can't perform any other action (other than moving at up to half speed) during this minute.

Try Again: Yes. You can try to spot something that you failed to see previously at no penalty. You can attempt to read lips once per minute.

Special: If you have the Alertness feat, you get a +2 bonus on Spot checks.

Street Smarts (Wis)

Use this skill to survive in the urban jungle. You are a skilled scavenger of the streets, capable of finding the essentials of life in any city or urban environment.

Check: You can keep yourself safe in a city or town without relying on others to help you.

Retry: You may try to find sustenance or check the safety of a particular building once per day. You may attempt to gain the synergy bonus for a Gather Information check only once per use of the Gather Information skill. If you get lost in a city, you can try to find your way (DC 10) every time you spot a landmark, consult a good map, or ask a local for directions.

Synergy: For every 5 ranks in Street Smarts you can get a +2 bonus to Gather Information checks to locate an item, location, or service within a city.

Survival (Wis)

Check: You can keep yourself and others safe and fed in the wild. The table below gives the DCs for various tasks that require Survival checks.

Survival does not allow you to follow difficult tracks unless you are a ranger or have the Track feat (see the Restriction section below).

Action: Varies. A single Survival check may represent activity over the course of hours or a full day. A Survival check made to find tracks is at least a full-round action, and it may take even longer.

Try Again: Varies. For getting along in the wild or for gaining the Fortitude save bonus noted in the table above, you make a Survival check once every 24 hours. The result of that check applies until the next check is made. To avoid getting lost or avoid natural hazards, you make a Survival check whenever the situation calls for one. Retries to avoid getting lost in a specific situation or to avoid a specific natural hazard are not allowed. For finding tracks, you can retry a failed check after 1 hour (outdoors) or 10 minutes(indoors) of searching.

Restriction: While anyone can use Survival to find tracks (regardless of the DC), or to follow tracks when the DC for the task is 10 or lower, only a ranger (or a character with the Track feat) can use Survival to follow tracks when the task has a higher DC.

Special: If you have 5 ranks in Survival, you can automatically determine where true north lies in relation to yourself.

Swim (Str)

Check: Make a Swim check once per round while you are in the water. Success means you may swim at up to one-half your speed (as a full-round action) or at one-quarter your speed (as a move action). If you fail by 4 or less, you make no progress through the water. If you fail by 5 or more, you go underwater.

If you are underwater, either because you failed a Swim check or because you are swimming underwater intentionally, you must hold your breath. You can hold your breath for a number of rounds equal to your Constitution score, but only if you do nothing other than take move actions or free actions. If you take a standard action or a full-round action (such as making an attack), the remainder of the duration for which you can hold your breath is reduced by 1 round. (Effectively, a character in combat can hold his or her breath only half as long as normal.) After that period of time, you must make a DC 10 Constitution check every round to continue holding your breath. Each round, the DC for that check increases by 1. If you fail the Constitution check, you begin to drown.

The DC for the Swim check depends on the water, as given on the table below.

Each hour that you swim, you must make a DC 20 Swim check or take 1d6 points of nonlethal damage from fatigue.

Action: A successful Swim check allows you to swim one-quarter of your speed as a move action or one-half your speed as a full-round action.

Special: Swim checks are subject to double the normal armor check penalty and encumbrance penalty.

If you have the Endurance feat, you get a +4 bonus on Swim checks made to avoid taking nonlethal damage from fatigue.

A creature with a swim speed can move through water at its indicated speed without making Swim checks. It gains a +8 racial bonus on any Swim check to perform a special action or avoid a hazard. The creature always can choose to take 10 on a Swim check, even if distracted or endangered when swimming. Such a creature can use the run action while swimming, provided that it swims in a straight line.

Tumble (Dex; Trained Only; Armor Check Penalty)

You can't use this skill if your speed has been reduced by armor, excess equipment, or loot.

Check: You can land softly when you fall or tumble past opponents. You can also tumble to entertain an audience (as though using the Perform skill). The DCs for various tasks involving the Tumble skill are given on the table below.

A DC 10 Tumble check allows you to treat a fall as if it where 10 ft shorter.

A DC 15 Tumble check allows you to move through a threatened area without provoking an attack of opportunity for doing so.

A DC 25 Tumble check allows you to move through an enemy-occupied square without being impeded or provoking an attack of opportunity.

Obstructed or otherwise treacherous surfaces, such as natural cavern floors or undergrowth, are tough to tumble through. The DC for any Tumble check made to tumble into such a square is modified as indicated below.

Accelerated Tumbling: You try to tumble past or through enemies more quickly than normal. By accepting a –10 penalty on your Tumble checks, you can move at your full speed instead of one-half your speed.

Action: Not applicable. Tumbling is part of movement, so a Tumble check is part of a move action.

Try Again: Usually no. An audience, once it has judged a tumbler as an uninteresting performer, is not receptive to repeat performances.

You can try to reduce damage from a fall as an instant reaction only once per fall.

Special: If you have at least 5 ranks in Tumble, you gain a +3 dodge bonus to Defensive Class when fighting defensively instead of the usual +2 dodge bonus to AC.

If you have at least 5 ranks in Tumble, you gain a +6 dodge bonus to AC when executing the total defense standard action instead of the usual +4 dodge bonus to AC.

Synergy: For every 5 ranks in Tumble, you get a +2 bonus on Balance, Jump, and Freefall checks.

For every 5 ranks in Jump, you get a +2 bonus on Tumble checks.

Use Rope (Dex)

Check: Most tasks with a rope are relatively simple. The DCs for various tasks utilizing this skill are summarized on the table below.

Secure a Grappling Hook: Securing a grappling hook requires a Use Rope check (DC 10, +2 for every 10 feet of distance the grappling hook is thrown, to a maximum DC of 20 at 50 feet). Failure by 4 or less indicates that the hook fails to catch and falls, allowing you to try again. Failure by 5 or more indicates that the grappling hook initially holds, but comes loose after 1d4 rounds of supporting weight. This check is made secretly, so that you don't know whether the rope will hold your weight.

Bind a Character: When you bind another character with a rope, any Escape Artist check that the bound character makes is opposed by your Use Rope check.

You get a +10 bonus on this check because it is easier to bind someone than to escape from bonds. You don't even make your Use Rope check until someone tries to escape.

Action: Varies. Throwing a grappling hook is a standard action that provokes an attack of opportunity. Tying a knot, tying a special knot, or tying a rope around yourself one-handed is a full-round action that provokes an attack of opportunity. Splicing two ropes together takes 5 minutes. Binding a character takes 1 minute.

Special: A silk rope gives you a +2 circumstance bonus on Use Rope checks. If you cast an *animate rope* spell on a rope, you get a +2 circumstance bonus on any Use Rope checks you make when using that rope.

These bonuses stack.

Synergy: For every 5 ranks in Use Rope, you get a +2 bonus on Climb checks made to climb a rope, a knotted rope, or a rope-and-wall combination.

For every 5 ranks in Use Rope, you get a +2 bonus on Escape Artist checks when escaping from rope bonds.

For every 5 ranks in Escape Artist, you get a +2 bonus on checks made to bind someone.

THREE: FEATS

A feat is a special trained or inherited ability that provides an advantage in one form or another. Feats are different from class and race abilities, because they are not taken by *all* members of a particular class or race! Even though some races or classes are prerequisites for some feats, that does not mean that everybody who meets the feat's requirements has the feat. In essence, feats are a method that players can use to further customize their characters, even beyond the scope of abilities provided by race and class.

In order to take a particular feat, a character must first meet it's listed prerequisites. The character can do this when he attains a new class level, even if he cannot qualify for the feat until later in the leveling process. If at any time a character loses one or more of a feat's prerequisites, he loses access to that feat's benefits until such time as he regains the prerequisite. Any feats that had the lost feat as a prerequisite are also no longer usable. Not all feats have a prerequisite, such feats can always be accessed.

Feats are listed with descriptors which indicate the type of feat, and often it's special rules. "General" feats are open to almost everybody, so long as they can meet the prerequisites. "Combat" feats are feats that those who focus on combat can choose as bonus feats, as their class allows. "Psionic" feats are feats that can only be taken by a psionic character, which is defined as a character that has at least one of the following feats: Fetching, Psychokinesis, or Telepathy. "Creation" feats are feats that can only be taken when a character is created, and even then only with their 1st-level free feat and any applicable bonus feats for race.

XP Cost of a new Feat: 500

Limit: Only one per three levels in a single class, and one for every three Prestige Class levels, excluding bonus feats and automatic 1st-level character feats.

TABLE 3-1: FEAT PREREQUISITE TREES

Fetching [Creation] Wisdom 11+
- Time Skip [Psionic] Fetching 5+ ranks

Alertness [General, Psionic]

Armor Proficiency (Light) [General]
- Armor Proficiency (Medium) [General]
  - Armor Proficiency (Heavy) [General]
    - Armor Proficiency (Powered) [Combat]

Blind-Fight [Combat]

Combat Expertise [Combat] Intelligence 13+
- Improved Disarm [Combat]
- Whirlwind Attack [Combat] Dexterity 13+, Dodge, Mobility, Spring Attack, Base Attack +4

Combat Reflexes [Combat]

Dodge [Combat] Dexterity 13+
- Gun-Fu [Combat]
- Mobility [Combat]
  - Shot on the Run [Combat] Point Blank Shot, Base Attack +4
  - Spring Attack [Combat] Base Attack +4
    - Whirlwind Attack [Combat] Intelligence 13+, Combat Expertise, Base Attack +4

Endurance [Combat]

Exotic Weapon Proficiency [Combat] Base Attack +1

Fetching [Creation] Wisdom 11+
- Time Skip [Psionic] Wisdom 13+, Fetching 5+ ranks

Gene-Jacked [General]

Great Fortitude [General]

High-G Tolerance [Combat] Strength 13+

Home System [Creation] Must be raised in the system

Implant Natural [Creation] Constitution 15+

Improved Initiative [Combat]

Improved Trip [Combat]

Improved Unarmed Combat [Combat]
- Martial Arts [Combat] Balance 4+ ranks, Tumble 4+ ranks, Base Attack +2

Information Junkie [General]

Intuitive Genius [General] Wisdom 13+, Scholar level 1+

Iron Will [General]

Lightning Reflexes [General]

Low-G Tolerance [Combat] Dexterity 13+

Point Blank Shot [Combat]
- Precise Shot [Combat]
  - Crack Shot [Combat]
- Rapid Shot [General]
  - Autofire [Combat] Martial Firearm Proficiency, Precise Shot, Technical Proficiency
- Shot on the Run [Combat] Dodge, Mobility, Base Attack +4

Power Attack [Combat] Strength 13+
- Cleave [Combat]
- Improved Bull Rush [Combat]

Psychokinesis [Creation] Intelligence 11+
- PK Shield [Psionic] Intelligence 13+, Psychokinesis 5+ ranks

Quick Draw [Combat] Base Attack +1

Rapid Reload [General] Weapon Proficiency (type chosen), Base Attack +1

Run [General]

Scent [General]

Skill Focus [General]

Simple Firearm Proficiency [General]
- Martial Firearm Proficiency [General]
  - Autofire [Combat] Dexterity 13+, Point Blank Shot, Precise Shot, Rapid Shot, Technical Proficiency

Simple Melee Proficiency [General]
- Martial Melee Proficiency [General]

Simple Projectile Proficiency [General]
- Martial Projectile Proficiency [General]

Technical Proficiency [General]
- Autofire [Combat] Dexterity 13+, Martial Firearm Proficiency, Point Blank Shot, Precise Shot, Rapid Shot
- Aircraft Piloting [General] Pilot 4+ ranks
- Born Spacer [General]
- Combat Ace [General] Pilot 4+ ranks
- Evasive Piloting [General] Pilot 4+ ranks, Dexterity 13+
- Fighter Piloting [Combat] Pilot 4+ ranks, Base Attack +1
- Gunner [General]
- Gunner's Eye [General]
- Hacker [General] Cryptography 4+ ranks, Computer Use 4+ ranks
- Lead Foot [General] Pilot 4+ ranks
- Magi [General] Bluff 8+ ranks, Computer Use 8+ ranks, Craft (nanotech) 8+ ranks, Cryptography 8+ ranks, Disable Device 4+ ranks, Intimidate 4+ ranks, Knowledge (history) 4+ ranks, Perform (acting) 4+ ranks, Remote Operation 4+ ranks
- Ram [General] Pilot 4+ ranks
- Signature Hack [General] Computer use 4+ ranks
- Starship Piloting [General] Pilot 4+ ranks
  - Space Jockey [General]
- Surgeon [General] Heal 4+ ranks, Knowledge (biology) 4+ ranks, Intelligence 15+

Telepathy [Creation] Charisma 11+
Brain Ripper [Psionic] Charisma 13+, Telepathy 5+ ranks
Temperature Tolerance [General] Constitution 13+
Toughness [Combat]
Two-Gun Shooting [Combat]
Improved Two-Gun Shooting [Combat] Dexterity 13+, Base Attack +6
Two-Weapon Fighting [Combat] Dexterity 15+
Improved Two-Weapon Fighting [Combat] Dexterity 17+, Base Attack +6
Weapon Finesse [Combat] Dexterity 13+, Base Attack +1
Weapon Focus [Combat] Weapon Proficiency, Base Attack +1
Weapon Specialization [Combat] Base Attack +4
Zero-G Tolerance [Combat] Dexterity 15+, Freefall 4+ ranks

Feat Descriptions

Name [Feat Type]
Flavor Description.
Prerequisites: What you need to have before you can have this feat.
Benefit: What the feat provides you with.
Normal: If the feat modifies a rule, this is an overview of the rule it modifies.
Special: Any extra information about the feat.

Aircraft Piloting [General]
You know how to pilot and operate aircraft.
Prerequisite: Pilot 4+ ranks, Technical Proficiency.
Benefit: You do not suffer any penalties on your Pilot checks when operating an aircraft.
Normal: Characters without this feat suffer a –4 penalty on Pilot checks when attempting to operate aircraft.

Alertness [General, Psionic]
You have an acute awareness of your surroundings.
Benefit: You get a +2 bonus on all Listen checks and Spot checks.
Special: The master of a familiar gains the benefit of the Alertness feat whenever the familiar is within arm's reach.

Armor Proficiency (Heavy) [General]
You know how to wear very heavy suits of armor, without being overly distracted by the weight and fit.
Prerequisites: Armor Proficiency (light), Armor Proficiency (medium).
Benefit: See Armor Proficiency (light).
Normal: See Armor Proficiency (light).

Armor Proficiency (Light) [General]
You know how to wear armor of light and comfortable manufacture, without being distracted by the odd fit.
Benefit: When you wear a type of armor with which you are proficient, the armor check penalty for that armor applies only to Balance, Climb, Escape Artist, Hide, Jump, Move Silently, Sleight of Hand, and Tumble checks.
Normal: A character who is wearing armor with which she is not proficient applies its armor check penalty to attack rolls and to all skill checks that involve moving, including Ride.

Armor Proficiency (Medium) [General]
You know how to wear somewhat heavy and constricting armor without too much difficulty.
Prerequisite: Armor Proficiency (light).
Benefit: See Armor Proficiency (light).
Normal: See Armor Proficiency (light).

Armor Proficiency (Powered) [Combat]
You are proficient with powered armor.
Prerequisites: Armor Proficiency (heavy), Technical Proficiency.
Benefit: When you wear a type of armor you're proficient with, the armor check penalty applies only to Balance, Climb, Escape Artist, Freefall, Hide, Jump, Move Silently, Sleight of Hand, and Tumble checks.
Normal: A character who is wearing armor with which she is not proficient suffers its armor check penalty on attack rolls and on all skill checks that involve moving, including Pilot.

Autofire [Combat]
You are trained to fire accurate bursts with an automatic weapon.
Prerequisites: Point Blank Shot, Precise Shot, Rapid Shot, Martial Firearm Proficiency, Technical Proficiency, Dexterity 13+.
Benefit: When firing an automatic weapon in automatic mode, each additional round in a burst uses the previous round's attack roll -3. He can also spray fire from one target to another in a single burst attack.
Normal: A character firing a burst from an automatic weapon in automatic mode has each additional round use the previous round's attack roll -5.

Blind-Fight [Combat]
You have learned to use senses other than sight, when you have a problem seeing your foes in melee.
Benefit: In melee, every time you miss because of concealment, you can reroll your miss chance percentile roll one time to see if you actually hit.
An invisible attacker gets no advantages related to hitting you in melee. That is, you don't lose your Dexterity bonus to Defensive Class, and the attacker doesn't get the usual +2 bonus for being invisible. The invisible attacker's bonuses do still apply for ranged attacks, however.
You take only half the usual penalty to speed for being unable to see. Darkness and poor visibility in general reduces your speed to three-quarters normal, instead of one-half.
Normal: Regular attack roll modifiers for invisible attackers trying to hit you apply, and you lose your Dexterity bonus to Defensive Class. The speed reduction for darkness and poor visibility also applies.

Born Spacer [General]
You are familiar and comfortable with space and its exotic environments.
Prerequisite: Technical Proficiency.
Benefit: You get a +2 bonus on all Freefall and Astrogation checks.

Brain Ripper [Psionic]
Your telepathic probe is capable of tearing apart the mind of others.

Prerequisite: Charisma 13+, Telepathy 5+ ranks, Telepathy.

Benefit: You can learn the Brain Ripper skill. This skill is Charisma linked. You must expend 1d6 Vitality to use this skill, which is a standard psionic action. You skill check becomes the Will save DC of your victim. If the victim fails his save, then he takes your Charisma in Hit Points of damage. This is a mind-affecting ability that only works out to Charisma x 5 ft (+5 ft/2 Psionic levels), and requires line-of-sight.

Your maximum ranks in the Brian Ripper skill are the same as your actual ranks in the Telepathy skill.

Cleave [Combat]
You have learned the trick of forcing a melee attack from one target to another as the first one drops.

Prerequisites: Strength 13, Power Attack.

Benefit: If you deal a creature enough damage to make it drop (typically by dropping it to below 0 hit points or killing it), you get an immediate, extra melee attack against another creature within reach. You cannot take a 5-foot step before making this extra attack. The extra attack is with the same weapon and at the same bonus as the attack that dropped the previous creature. You can use this ability once per round.

Combat Ace [General]
In a dogfight, you can line up and acquire a target with a single fluid maneuver.

Prerequisites: Pilot 4+ ranks, Technical Proficiency.

Benefit: You can make a targeting run and acquire a target as a single move-equivalent action.

Normal: Targeting run and acquire target are both move-equivalent actions.

Special: You cannot use this feat with a vehicle that is size category Colossal or larger.

Combat Expertise [Combat]
In melee you can hide behind the whirling dance of your own weapon in order to make yourself harder to hit.

Prerequisite: Intelligence 13.

Benefit: When you use the attack action or the full attack action in melee, you can take a penalty of as much as –5 on your attack roll and add the same number (+5 or less) as a dodge bonus to your Defensive Class. This number may not exceed your Base Attack bonus. The changes to attack rolls and Defensive Class last until your next action.

Normal: A character without the Combat Expertise feat can fight defensively while using the attack or full attack action to take a –4 penalty on attack rolls and gain a +2 dodge bonus to Defensive Class.

Combat Reflexes [Combat]
Your practiced reflexes let you take better advantage of distracted or incautious opponents, as well as providing you with more awareness of danger in a fight.

Benefit: You may make a number of additional attacks of opportunity equal to your Dexterity bonus. Yu do not automatically lose your Dexterity bonus to your Defensive Class when attacked from your blind spot or it's arc.

With this feat, you may also make attacks of opportunity while flat-footed, and even into your blind spot.

Normal: A character without this feat can make only one attack of opportunity per round and can't make attacks of opportunity while flat-footed.

Crack Shot [Combat]
You are skilled at making well-laced shots at targets behind cover.

Prerequisites: Point Blank Shot, Precise Shot.

Benefit: When you make a ranged attack against an opponent behind cover, the target's cover bonus to Defensive Class is halved.

Dodge [Combat]
You have honed your agility to better defend against a foe's assault.

Prerequisite: Dexterity 13.

Benefit: During your action, you designate an opponent and receive a +1 dodge bonus to Defensive Class against attacks from that opponent. You can select a new opponent on any action.

A condition that makes you lose your Dexterity bonus to Defensive Class (if any) also makes you lose dodge bonuses. Also, dodge bonuses stack with each other, unlike most other types of bonuses.

Endurance [Combat]
Adversity and hardship have hardened your body, making it easier fir you to exert yourself comfortably.

Benefit: You gain a +4 bonus on the following checks and saves: Swim checks made to resist Vitality damage, Constitution checks made to continue running, Constitution checks made to avoid Vitality damage from a forced march, Constitution checks made to hold your breath, Constitution checks made to avoid damage from starvation or thirst, Fortitude saves made to avoid Vitality damage from hot or cold environments, and Fortitude saves made to resist damage from suffocation. Also, you may sleep in light or medium armor without becoming fatigued.

Normal: A character without this feat who sleeps in medium or heavier armor is automatically fatigued the next day.

Evasive Piloting [General]
You know how to shake a tail.

Prerequisites: Pilot 4+ ranks, Technical Proficiency, Dexterity 13+.

Benefit: You get a +4 bonus on your opposed Pilot check when an opponent is attempting a targeting run on your vehicle.

Exotic Weapon Proficiency [Combat]
You have learned the tricks necessary to wield a particularly odd weapon.

Prerequisite: Base Attack +1 (plus Strength 13 for exotic projectile weapons).

Benefit: Choose a type of exotic weapon. You understand how to use that type of exotic weapon in combat. You make attack rolls with the weapon normally.

Normal: A character who uses a weapon with which he or she is not proficient takes a –4 penalty on attack rolls.

Special: You can gain Exotic Weapon Proficiency multiple times. Each time you take the feat, it applies to a new type of exotic weapon.

Fetching [Creation]
You have the inborn genetic ability to bend space/time.

Prerequisite: Wisdom 11+.

Benefit: You can learn the Fetching skill, which is a class skill for Psionics (and maybe Scholars. See the Psionics section for details. You are also more adept at moving around, and get to add your Wisdom modifier to your Jump and Tumble skills as a competence modifier.

Special: This feat can only be taken as your 1st-level character feat.

Fighter Piloting [Combat]
Your have been trained in how to fly and fight space fighters.

Prerequisite: Pilot 4+ ranks, Base Attack +1, Technical Proficiency.

Benefit: You can make an attack with your ship's weapons if you successfully make a targeting run, but only while piloting a space fighter.

Normal: You have to wait until the round following your targeting run to make an attack with your ship's weapons, which gives your target the chance to evade you.

Gene-Jacked [General]
You have had your genetic code altered to provide you with some advantage.

Benefit: You can choose either one minor advantage, two minor advantages and a disadvantage, or one major advantage and a disadvantage from the Gene-Jack list. Unless you are taking this feat as one of your 1st-level character feats, you must still purchase the desired advantages and the gestation time to express them.

Special: If this feat was taken as one of your 1st-level feats, you receive an additional minor advantage.

Special: You can take this feat multiple times. Unless the description says so, you cannot choose an advantage or disadvantage more than once.

Special: Orliss are always considered to have this feat an unlimited number of times after character creation. Playing constructor set with their DNA is what they excel at.

Normal: A character who gets his DNA tinkered with must have a disadvantage with every minor advantage, and *two* disadvantages for every major advantage!

Great Fortitude [General]
Your body has hardened to adverse agents and conditions.

Benefit: You get a +2 bonus on all Fortitude saving throws.

Gun-Fu [Combat]
You have learned how to avoid being shot by shooting to distract others.

Prerequisite: Dexterity 13, Dodge.

Benefit: When you move at least 5 ft in a round and use the attack action or the full attack action when firing a firearm, you can take a penalty of as much as –5 on your attack roll and add the same number (+5 or less) as a dodge bonus to your Defensive Class. This number may not exceed your Base Attack bonus. The changes to attack rolls and Defensive Class last until your next action.

Normal: A character without the Gun-Fu feat can fight defensively while using the attack or full attack action to take a –4 penalty on attack rolls and gain a +2 dodge bonus to Defensive Class.

Gunner [General]
You are trained to fire weapons from a vehicle.

Prerequisite: Technical Proficiency.

Benefit: The penalty on ranged attack rolls for your vehicle's speed is halved.

Gunner's Eye [General]
You are skilled at acquiring targets in vehicle combat.

Prerequisite: Technical Proficiency.

Benefit: You get a +2 bonus on attack rolls against targets in vehicle combat.

Hacker [General]
You are skilled at breaking codes and cracking computer systems.

Prerequisites: Cryptography 4+ ranks, Computer Use 4+ ranks, Technical Proficiency.

Benefit: You get a +2 bonus on all Cryptography and Computer Use checks when using them on a computer system.

High-G Tolerance [Combat]
You are well adapted to high-g environments.

Prerequisite: Strength 13+.

Benefit: You treat all high-g environments as if they where 1g lower, to a minimum of 1g, for purposes of Dexterity modifiers.

Home System [Creation]
You are adept at the ways of your people, gaining an advantage others in the universe, even of the same race, do not possess.

Prerequisite: Must be from the system they choose this advantage for.

Benefit: You gain the advantage that your home system indicates as being it's Home System Advantage.

Special: A person can only be raised in one system, and therefore can only take this feat *once!*

Note: Humans get this feat for free at character creation.

Example: "Heavy Gravity World" You are from a planet with gravity in excess of 1.2g. You gain a bonus of +2 to your Strength score. You also get to ignore 0.2g above 1g of gravity for purposes determining gravity-based penalties.

Example: "Stationeer" You were born and raised on a space station. You gain a +2 bonus to your Astrogation, Balance, Freefall, and Repair skills.

Example: "Megalopolis" You were raised on one of the few remaining heavily-populated worlds. You gain a bonus of +2 on your Computer Use, Diplomacy, and Street Smarts skills.

Implant Natural [Creation]
You body is extraordinarily adept as taking cybernetic implants with minimal stress.

Prerequisite: Constitution 15+.

Benefit: You reduce the Stress rolls of all your cybernetic implants by 2, to a minimum of 1.

Special: This feat can only be taken as your 1st-level character feat.

Improved Bull Rush [Combat]
Long practice has made it easier for you to run down others while on foot.

Prerequisites: Strength 13, Power Attack.

Benefit: When you perform a bull rush you do not provoke an attack of opportunity from the defender. You also gain a +4 bonus on the opposed Strength check you make to push back the defender.

Improved Disarm [Combat]
You have learned how to attack another's weapon without exposing yourself to counter-attack.

Prerequisites: Intelligence 13, Combat Expertise.

Benefit: You do not provoke an attack of opportunity when you attempt to disarm an opponent, nor does the opponent have a chance to disarm you. You also gain a +4 bonus on the opposed attack roll you make to disarm your opponent.

Normal: See the normal disarm rules.

Improved Initiative [Combat]
Practice has made you more likely to act before others in a fight.

Benefit: You get a +4 bonus on initiative checks.

Improved Trip [Combat]
You can drop your opponents on their asses with much greater ease.

Benefit: You do not provoke an attack of opportunity when you attempt to trip an opponent while you are unarmed. You also gain a +4 bonus on your Strength check to trip your opponent.
If you trip an opponent in melee combat, you immediately get a melee attack against that opponent as if you hadn't used your attack for the trip attempt.

Normal: Without this feat, you provoke an attack of opportunity when you attempt to trip an opponent while you are unarmed.

Improved Two-Gun Shooting [Combat]
Your aim with two firearms is now an amazing thing.

Prerequisites: Dexterity 13+, Two-Gun Shooting, Base Attack +6.

Benefit: In addition to the standard single extra attack you get with an off-hand firearm, you get a second attack with it, albeit at a –5 penalty. The penalty for fighting with two firearms is reduced by 1.

Normal: Without this feat, you can only get a single extra attack with an off-hand firearm.

Improved Two-Weapon Fighting [Combat]
Your agility with two melee weapons is now an amazing thing.

Prerequisites: Dexterity 17, Two-Weapon Fighting, Base Attack +6.

Benefit: In addition to the standard single extra attack you get with an off-hand melee weapon, you get a second attack with it, albeit at a –5 penalty. The penalty for fighting with two melee weapons is reduced by 1.

Normal: Without this feat, you can only get a single extra attack with an off-hand weapon.

Improved Unarmed Combat [Combat]
You have learned how to hone your body into a lethal weapon.

Benefit: You are considered to be armed even when unarmed - that is, you do not provoke attacks or opportunity from armed opponents when you attack them while unarmed. However, you still get an attack of opportunity against any opponent who makes an unarmed attack on you.

In addition, your unarmed strikes can deal Hit Point or Vitality damage, at your option.

Normal: Without this feat, you are considered unarmed when attacking with an unarmed strike, and you can deal only Vitality damage with such an attack.

Information Junkie [General]
You spend much of your time accumulating news, trivia, rumors, and gossip.

Benefit: You get a +2 bonus on all Gather Information and Research checks.

Intuitive Genius [General]
You have gained a greater grasp of your own intuition, gaining a greater faculty with it.

Prerequisite: Wisdom 13+, Scholar Level 1+.

Benefit: Once per day you can choose one of the Scholar special abilities that you have: Trivia, Minor Secret, or Major Secret. You get to use that ability an additional time that day. You also gain a +1 bonus to *all* checks you make using these abilities.

Special: You can take this feat multiple times. Every additional time you take it you gain an additional daily use of one of your Scholar abilities, and the bonus to them goes up by +1.

Iron Will [General]
Your stubbornness and refusal to bow before others is a point of pride to you.

Benefit: You get a +2 bonus on all Will saving throws.

Lead Foot [General]
You are good at operating a vehicle at high speed.

Prerequisite: Pilot 4+ ranks, Technical Proficiency.

Benefit: When piloting a vehicle, you get a +4 bonus on all Pilot checks for acceleration.

Lightning Reflexes [General]
Your reaction time is so great that you can avoid dangers that others fall prey to easily.

Benefit: You get a +2 bonus on all Reflex saving throws.

Low-G Tolerance [Combat]
You are well adapted to low-g environments.

Prerequisite: Dexterity 13+.

Benefit: You treat all low-g environments – those between 0.1g and 1g, as if they where 1g for purposes of Dexterity modifiers.

Magi [General]
Through applied psychology, showmanship, and technical know-how you have managed to figure out a way to facsimile magic, becoming one of the folk called Magi.

Prerequisite: Bluff 8+ ranks, Computer Use 8+ ranks, Craft (nanotech) 8+ ranks, Cryptography 8+ ranks, Disable Device 4+ ranks, Intimidate 4+ ranks, Knowledge (history) 4+ ranks, Perform (acting) 4+ ranks, Remote Operation 4+ ranks, Technical Proficiency.

Benefit: You can Craft magi-specific items. When you meet somebody who knows you are a Magi, you gain a +2 bonus o your Bluff and Intimidate checks. Your strange blend of technology and mysticism confuses the Necrol, giving you a +2 bonus to your Defensive Class, and Hide checks against them.

Special: Unless you spend a year studying under another Magi, developing this feat takes 2,000 XP instead of 500 XP. While studying, you can still adventure and undertake other activities.

Martial Arts [Combat]
You have studied the ancient arts of unarmed combat science.

Prerequisite: Balance 4+ ranks, Tumble 4+ ranks, Improved Unarmed Combat, Base Attack +2.

Benefit: Your unarmed attacks not only count as armed, but they do extra damage. Small-size creatures do 1d4 damage, Medium-size creatures do 1d6 damage. This is Hit Point damage, and potentially lethal. You can chose martial arts as a Weapon Focus, and Weapon Specialization feat. You also get one additional attack when using a Full Attack action, at your highest Base Attack bonus, but only if you are using just unarmed (or natural weapon) attacks and you are at -3 to hit for each extra attack from Martial Arts.

Special: You can take this feat multiple times. Each extra time it is taken increase he character's unarmed damage by one die size: d4, d6, d8, d10, d12, 2d10, and at that point it tops out. Each additional time you take this feat also provides you another attack on a Full Attack action, with the same limitations.

Special: A character that has a natural attack, such as claws, can add the two damage dice together.

Example: A character with a +6 Base Attack and two Martial Arts feats would attack at +6/+1 for his regular unarmed attacks, then at +3 for his first Martial Arts attack and +0 for his second.

Martial Firearm Proficiency [General]
You are proficient with all man-portable firearms.

Prerequisite: Simple Firearm Proficiency.

Benefit: You can use all weapons on the martial firearms table.

Normal: Without this feat you suffer a –4 penalty to all attack rolls you make with weapons on the martial firearms table.

Martial Melee Proficiency [General]
You are proficient with all melee weapons that take some training to use.

Prerequisite: Simple Melee Proficiency.

Benefit: You can use all weapons on the martial melee table.

Normal: Without this feat you suffer a –4 penalty to all attack rolls you make with weapons on the martial melee table.

Martial Projectile Proficiency [General]
You are proficient with all man-portable projectile weapons.

Prerequisite: Simple Projectile Proficiency.

Benefit: You can use all weapons on the martial projectile table.

Normal: Without this feat you suffer a –4 penalty to all attack rolls you make with weapons on the martial projectile table.

Mobility [Combat]
Others find it hard to hit you as you dance about them.

Prerequisites: Dexterity 13, Dodge.

Benefit: You get a +4 dodge bonus to Defensive Class against attacks of opportunity caused when you

move out of or within a threatened area. A condition that makes you lose your Dexterity bonus to Defensive Class (if any) also makes you lose dodge bonuses.

Dodge bonuses stack with each other, unlike most types of bonuses.

PK Shield [Psionic]
You can erect a field of ablative psychokinetic energy to protect you.

Prerequisites: Intelligence 13+, Psychokinesis 5+ ranks, Psychokinesis.

Benefit: You can learn the PK Shield skill. As a standard psionic action you can surround yourself in a semi-visible skin tight field of energy. Doing so requires a skill check DC 10, and costs 1d6 Vitality. Your skill result becomes the total amount of damage from external sources that the field will protect you from, including all forms of energy but not uses of Brain Ripper. It automatically loses a point at the beginning of your turn. You can strengthen the field every turn by making more checks, if you desire to.

Your maximum ranks in the PK Shield skill are the same as your actual ranks in the Psychokinesis skill.

Point Blank Shot [Combat]
When you can tell detail about your target, you can place ranged attacks into his most sensitive and vulnerable spots much easier.

Benefit: You get a +1 bonus on attack and damage rolls with ranged weapons at ranges of up to 30 feet.

Power Attack [Combat]
Thanks to raw muscle power and applied force, you can easily drop opponents in melee combat.

Prerequisite: Strength 13.

Benefit: On your action, before making attack rolls for a round, you may choose to subtract a number from all melee attack rolls and add the same number to all melee damage rolls. This number may not exceed your Base Attack bonus. The penalty on attacks and bonus on damage apply until your next turn.

Special: If you attack with a two-handed weapon, or with a one-handed weapon wielded in two hands, instead add twice the number subtracted from your attack rolls. You can't add the bonus from Power Attack to the damage dealt with a light weapon (except with unarmed strikes or natural weapon attacks), even though the penalty on attack rolls still applies. (Normally, you treat a double weapon as a one-handed weapon and a light weapon. If you choose to use a double weapon like a two-handed weapon, attacking with only one end of it in a round, you treat it as a two-handed weapon.)

Precise Shot [Combat]
You have learned how to avoid hitting friends when firing into a crowd.

Prerequisite: Point Blank Shot.

Benefit: You can shoot or throw ranged weapons at an opponent engaged in melee without taking the standard –4 penalty on your attack roll.

Psychokinesis [Creation]
You have the inborn genetic ability to manipulate matter by thought alone.

Prerequisite: Intelligence 11+.

Benefit: You can learn the Psychokinesis skill, which is a class skill for Psionics (and maybe Scholars). See the Psionics section for details. You also are more comfortable with manipulating items by hand, adding your Intelligence modifier to your Craft and Repair skill checks as a competence modifier.

Quick Draw [Combat]
Your hand-eye coordination and combat-trained reflexes allow you to arm yourself quickly when the need arises.

Prerequisite: Base Attack +1.

Benefit: You can draw a weapon as a free action instead of as a move action. You can draw a hidden weapon (see the Sleight of Hand skill) as a move action.

A character who has selected this feat may throw weapons at his full normal rate of attacks (much like a character with a bow).

Normal: Without this feat, you may draw a weapon as a move action, or (if your Base Attack bonus is +1 or higher) as a free action as part of movement. Without this feat, you can draw a hidden weapon as a standard action.

Ram [General]
You know how to use your vehicle as a weapon.

Prerequisite: Piloting 4+ ranks, Technical Proficiency.

Benefit: When you attempt to ram another vehicle, your target does not get a Pilot check for half damage.

Rapid Reload [General]
You can reload a firearm much faster than normal.

Prerequisite: Weapon Proficiency (type chosen), Base Attack +1.

Benefit: Choose a type of firearm (simple, martial, or exotic), or projectile weapon (crossbow, grenade launcher, or gyroc). The time required for you to reload your chosen type of weapon's internal magazine is reduced to a free action, but still provokes an attack of opportunity. This still reloads 1 + Dexterity modifier in shots. A Move-equivalent action can be used to instead reload 5 + dexterity modifier in shots.

Normal: A character without this feat needs a move action to reload a magazine, and only loads 1 + Dexterity modifier in shots.

Special: You can gain Rapid Reload multiple times. Each time you take the feat, it applies to a new type of weapon.

Rapid Shot [General]
By sacrificing accuracy you can put more shots into the air, in the hopes that at least one will hit.

Prerequisites: Dexterity 13, Point Blank Shot.

Benefit: You can get one extra attack per round with a ranged weapon. The attack is at your highest Base Attack bonus, but each attack you make in that round (the extra one and the normal ones) takes a –2 penalty. You must use the full attack action to use this feat.

Run [General]
Long practice and good muscles allow you to run faster and further than others.

Benefit: When running, you move five times your normal speed (modified by encumbrance). If you make a jump after a running start (see the Jump skill description), you gain a +4 bonus on your Jump check. While running, you retain your Dexterity bonus to Defensive Class.

Normal: You move four times your speed while running (modified by encumbrance), and you lose your Dexterity bonus to Defensive Class.

Scent [General]
You can distinguish between odors in the same manner that others distinguish between paintings.

Benefit: You can recognize people and things by smell. You get a +4 bonus to your Spot and Sense Motive checks whenever you can smell your ambusher or the person you are talking to. You can also follow a trail by scent, allowing you to ignore terrain all terrain modifiers to your Survival checks to follow a trail.

Shot on the Run [Combat]
You can easily aim and shoot a weapon while moving, instead of needing to slow down!

Prerequisites: Dexterity 13, Dodge, Mobility, Point Blank Shot, Base Attack +4.

Benefit: When using the attack action with a ranged weapon, you can move both before and after the attack, provided that your total distance moved is not greater than your speed.

Skill Focus [General]
Your long practice, and some intuitive knack, has made you better at a skill than normal.

Benefit: Choose a skill. You get a +3 bonus on all checks involving that skill.

Special: You can gain this feat multiple times. Its effects do not stack. Each time you take the feat, it applies to a new skill.

Signature Hack [General]
You have a particular way of hacking, a practiced format which allows you to complete hacks more easily and efficiently, but if someone finds the pattern, makes his programs very easy to stop.

Prerequisite: Computer Use 4+ ranks, Technical Proficiency.

Benefits: Your time spent writing any program is divided by 5. You get a +2 bonus on any opposed Computer Use check when the opponent is not familiar with your style. You suffer a -4 penalty on Computer Use check if the opponent is familiar with your style, having beaten you at least twice before.

Simple Firearm Proficiency [General]
You are proficient with all easily used small firearms.

Benefit: You can use all weapons on the simple firearms table.

Normal: Without this feat you suffer a -4 penalty to all attack rolls you make with weapons on the simple firearms table.

Simple Melee Proficiency [General]
You are proficient with all easily used melee weapons.

Benefit: You can use all weapons on the simple melee table.

Normal: Without this feat you suffer a -4 penalty to all attack rolls you make with weapons on the simple melee table.

Simple Projectile Proficiency [General]
You are proficient with all easily used small hurled and projectile weapons.

Benefit: You can use all weapons on the simple projectile table.

Normal: Without this feat you suffer a -4 penalty to all attack rolls you make with weapons on the simple projectile table.

Space Jockey [General]
You are more at home behind the controls of a starship than anywhere else, and you don't mind getting your hands dirty to keep your craft in tip-top shape.

Prerequisites: Pilot 4+ ranks, Starship Piloting, Technical Proficiency.

Benefit: You get a +2 bonus on all Pilot, Repair, and Computer Use checks involved in the operation of a starship.

Spring Attack [Combat]
Your agility has improved to the point that you can move and attack, almost without noticing that you have moved!

Prerequisites: Dexterity 13, Dodge, Mobility, Base Attack +4.

Benefit: When using the attack action with a melee weapon, you can move both before and after the attack, provided that your total distance moved is not greater than your speed. Moving in this way does not provoke an attack of opportunity from the defender you attack, though it might provoke attacks of opportunity from other creatures, if appropriate. You can't use this feat if you are wearing heavy armor.

You must move at least 5 feet both before and after you make your attack in order to utilize the benefits of Spring Attack.

Starship Piloting [General]
You know how to pilot and operate a starship.

Prerequisites: Pilot 4+ ranks, Technical Proficiency.

Benefit: You do not suffer any penalties on your Pilot checks when operating a starship.

Normal: Characters without this feat suffer a -4 penalty on Pilot checks when attempting to operate a starship.

Surgeon [General]
You are trained in the delicate art of surgery.

Prerequisites: Heal 4+ ranks, Knowledge (biology) 4+ ranks, Technical Proficiency, Intelligence 15+.

Benefit: You can use your Heal skill to perform implantation, trauma, and repair surgical procedures.

Normal: A character who meets the prerequisites for this feat can attempt to perform such procedures, but only if the DC is less than 20.

Technical Proficiency [General]
You either hail from or have lived in a technologically advanced civilization for a significant period of time.

Benefit: You can use common high-tech devices, such as communicators and computerized devices. You can also learn to use high-tech weapons, computers, vehicles, and other complex or specialized equipment with the appropriate training.

Normal: Without this feat, characters cannot use high-tech devices without instruction. Even with instruction, they suffer a -4 circumstance penalty on all ability checks, skill checks, and attack rolls using high-tech devices. Such characters cannot choose feats or learn the Astrogation, Craft (any high-tech device), Repair, or Computer Use skills.

Telepathy [Creation]
You have the inborn genetic ability to manipulate matter by thought alone.

Prerequisite: Charisma 11+.

Benefit: You can learn the Telepathy skill, which is a class skill for Psionics (and maybe Scholars). See the Psionics section for details. You also are more adept at reading people and getting them to believe you, adding your Intelligence modifier to your Bluff and Sense Motive skill checks as a competence modifier.

Temperature Tolerance [General]
You can withstand a broad range of temperatures and climates.

Prerequisite: Constitution 13+.

Benefit: You get a +4 bonus on all Fortitude saving throws to resist the effects of heat dangers and cold dangers (see DMG pg 86).

Time Skip [Psionic]
You can compress your own temporal state in order to move faster or slower in relation to the world around you.

Prerequisites: Wisdom 13+, Fetching 5+ ranks, Fetching.

Benefit: You can learn the Time Skip skill. A skill check will allow you to alter your relative time-frame by 50%. This skill check has a DC of 10 and costs 1d6 Vitality to make. You're time-frame is altered for up to half your check result in rounds. If accelerated then you gain an additional partial action every turn, a +4 Dodge bonus to Defense Class; but consume 50% more oxygen and take an extra 50% more damage from constant sources (such as radiation or poison). If slowed then you can only take partial actions, get a -2 penalty to Defense Class and attack rolls; but consume 50% less oxygen and take 50% less damage from constant sources (such as radiation or poison). All durations are measured from the time-frame outside of the character.

Your maximum ranks in the Time Skip skill are the same as your actual ranks in the Fetching skill.

Toughness [Combat]
Hardship and danger has hardened you, making you harder to kill.

Benefit: You gain an extra +3 Hit Points.

Note: This feat can only be taken *once!*

Two-Gun Shooting [Combat]
You can shoot with both weapons when you have a firearm in each hand. You can make one extra attack each round with the second weapon.

Benefit: Your penalties for firing two weapons are reduced by 2, and you have no extra penalty for your off-hand. You still only get one extra attack roll, at your full attack score and modifiers, with the extra firearm. This extra attack roll can be used with a Full Attack or regular Attack action.

Normal: The standard penalty for firing two regular weapons are -10 for your off-hand and -6 for your good hand. These are reduced by 2 for a weapon if it is Light for you. You only get one extra attack roll, at your full attack score and modifiers, with the extra firearm, and only on a Full Attack action.

Two-Weapon Fighting [Combat]
You can fight with a weapon in each hand. You can make one extra attack each round with the second weapon.

Prerequisite: Dexterity 15.

Benefit: Your penalties for wielding two melee weapons are reduced by 2, and you have no extra penalty for your off-hand. You still only get one extra attack roll, at your full attack score and modifiers, with the extra firearm. This extra attack roll can be used with a Full Attack or regular Attack action.

Normal: If you wield a second melee weapon in your off hand, you can get one extra attack per round with that weapon. When fighting in this way you suffer a –6 penalty with your regular attack or attacks with your primary hand and a –10 penalty to the attack with your off hand, and only on a Full Attack action. If your off-hand weapon is light the penalties are reduced by 2 each. (An unarmed strike is always considered light.)

Weapon Finesse [Combat]
You have learned how to let your melee weapons flow as if a part of your body, with great accuracy.

Prerequisite: Dexterity 13+, Base Attack +1.

Benefit: You gain +1 to hit with all melee weapons, but only if they are light weapons for you (this includes natural weapons).

Weapon Focus [Combat]
Choose one type of weapon. You can also choose unarmed combat (which includes grapples and the Martial Arts feat, but not natural weapons) as your weapon for purposes of this feat.

Prerequisites: Proficiency with selected weapon, Base Attack +1.

Benefit: You gain a +1 bonus on all attack rolls you make using the selected weapon.

Special: You can gain this feat multiple times. Its effects do not stack. Each time you take the feat, it applies to a new type of weapon.

Weapon Specialization [Combat]
Choose one type of weapon for which you have already selected the Weapon Focus feat. You can also choose unarmed strike or grapple as your weapon for purposes of this feat. You deal extra damage when using this weapon.

Prerequisites: Proficiency with selected weapon, Weapon Focus with selected weapon, Base Attack +4.

Benefit: You gain a +2 bonus on all damage rolls you make using the selected weapon.

Special: You can gain this feat multiple times. Its effects do not stack. Each time you take the feat, it applies to a new type of weapon.

Whirlwind Attack [Combat]
You can lash out in melee, assaulting all those you can reach!

Prerequisites: Dexterity 13, Intelligence 13, Combat Expertise, Dodge, Mobility, Spring Attack, Base Attack +4.

Benefit: When you use the full attack action, you can give up your regular attacks and instead make one melee attack at your full Base Attack bonus against each opponent within reach. When you use the Whirlwind Attack feat, you also forfeit any bonus or extra attacks granted by other feats, spells, or abilities.

Zero-G Tolerance [Combat]
You are well adapted to zero-g environments, also known as microgravity.

Prerequisites: Freefall 4+ ranks, Dexterity 15+.

Benefit: You treat all zero-g (i.e. microgravity) environments - those less than 0.1g - as if they were 1g for purposes of Dexterity modifiers.

TABLE 3-2: FEAT BASE LIST
Feat [Type]
Aircraft Piloting [General]
Alertness [General, Psionic]
Armor Proficiency (Heavy) [General]
Armor Proficiency (Light) [General]
Armor Proficiency (Medium) [General]
Armor Proficiency (Powered) [Combat]
Autofire [Combat]
Blind-Fight [Combat]
Born Spacer [General]
Brain Ripper [Psionic]
Cleave [Combat]
Combat Ace [General]
Combat Expertise [Combat]
Combat Reflexes [Combat]
Crack Shot [Combat]
Dodge [Combat]
Endurance [Combat]
Evasive Piloting [General]
Exotic Weapon Proficiency [Combat]
Fetching [Creation]
Fighter Piloting [Combat]
Gene-Jacked [General]
Great Fortitude [General]
Gun-Fu [Combat]
Gunner [General]
Gunner's Eye [General]
Hacker [General]
High-G Tolerance [Combat]
Home System [Creation]
Implant Natural [Creation]
Improved Bull Rush [Combat]
Improved Disarm [Combat]
Improved Initiative [Combat]
Improved Trip [Combat]
Improved Two-Gun Shooting [Combat]
Improved Two-Weapon Fighting [Combat]
Improved Unarmed Combat [Combat]
Information Junkie [General]
Intuitive Genius [General]
Iron Will [General]
Lead Foot [General]
Lightning Reflexes [General]
Low-G Tolerance [Combat]
Magi [General]
Martial Arts [Combat]
Martial Firearm Proficiency [General]
Martial Melee Proficiency [General]
Martial Projectile Proficiency [General]
Mobility [Combat]
PK Shield [Psionic]
Point Blank Shot [Combat]
Power Attack [Combat]
Precise Shot [Combat]
Psychokinesis [Creation]
Quick Draw [Combat]
Ram [General]
Rapid Reload [General]
Rapid Shot [General]
Run [General]
Scent [General]
Shot on the Run [Combat]
Skill Focus [General]
Signature Hack [General]
Simple Firearm Proficiency [General]
Simple Melee Proficiency [General]
Simple Projectile Proficiency [General]
Space Jockey [General]
Spring Attack [Combat]
Starship Piloting [General]
Surgeon [General]
Technical Proficiency [General]
Telepathy [Creation]
Temperature Tolerance [General]
Time Skip [Psionic]
Toughness [Combat]
Two-Gun Shooting [Combat]
Two-Weapon Fighting [Combat]
Weapon Finesse [Combat]
Weapon Focus [Combat]
Weapon Specialization [Combat]
Whirlwind Attack [Combat]
Zero-G Tolerance [Combat]

TABLE 3-3: FEATS BY FEAT TYPE

Combat
Armor Proficiency (Powered)
Autofire
Blind-Fight
Cleave
Combat Expertise
Combat Reflexes
Crack Shot
Dodge
Endurance
Exotic Weapon Proficiency
Fighter Piloting
Gun-Fu
High-G Tolerance
Improved Bull Rush
Improved Disarm
Improved Initiative
Improved Trip
Improved Two-Gun Shooting
Improved Two-Weapon Fighting
Improved Unarmed Combat
Low-G Tolerance
Martial Arts
Mobility
Point Blank Shot
Power Attack
Precise Shot
Quick Draw
Shot on the Run
Spring Attack
Toughness
Two-Gun Shooting
Two-Weapon Fighting
Weapon Finesse
Weapon Focus
Weapon Specialization
Whirlwind Attack
Zero-G Tolerance

Creation
Fetching
Home System
Implant Natural
Psychokinesis
Telepathy

General
Aircraft Piloting
Armor Proficiency (Heavy)
Armor Proficiency (Light)
Armor Proficiency (Medium)
Alertness
Born Spacer
Combat Ace
Evasive Piloting
Gene-Jacked
Great Fortitude
Gunner
Gunner's Eye
Hacker
Information Junkie
Intuitive Genius
Iron Will
Lead Foot
Lightning Reflexes
Magi
Martial Firearm Proficiency
Martial Melee Proficiency
Martial Projectile Proficiency
Ram
Rapid Reload
Rapid Shot
Run
Scent
Skill Focus
Signature Hack
Simple Firearm Proficiency
Simple Melee Proficiency
Simple Projectile Proficiency
Space Jockey
Starship Piloting
Surgeon
Technical Proficiency
Temperature Tolerance

Psionic
Alertness
Brain Ripper
Communion (see Chapter 11: Psionics)
Compel (see Chapter 11: Psionics)
Disintegrate (see Chapter 11: Psionics)
Edit Mind (see Chapter 11: Psionics)
Empathy (see Chapter 11: Psionics)
Extra Strength (see Chapter 11: Psionics)
Hop (see Chapter 11: Psionics)
Hop Other (see Chapter 11: Psionics)
Impact (see Chapter 11: Psionics)
Mental Arm (see Chapter 11: Psionics)
Mental Lance (see Chapter 11: Psionics)
Natural Flow (see Chapter 11: Psionics)
Overexertion (see Chapter 11: Psionics)
PK Shield
Phase (see Chapter 11: Psionics)
Phase Dodge (see Chapter 11: Psionics)
Probe (see Chapter 11: Psionics)
Rapid Power (see Chapter 11: Psionics)
Rapidity (see Chapter 11: Psionics)
Scan Mind (see Chapter 11: Psionics)
Time Skip
Warp Item (see Chapter 11: Psionics)

FOUR: TECHNOLOGY

All technology in the Dead Stars system, from the simplest dagger to the most complex space vessel, is based on a Template and Options system. Items are designed by taking a base Template from a list of those available, deciding on the quality of the materials that made it and their design, then applying whatever Options the designer chooses. The maximum amount of Options a particular Template can have is based on the Template itself, and modified by it's Quality. The base price of a finished item is based on the Template's Base Cost, which is a value multiplied by the Quality of the template, and then further added to by the Options that it was designed to include.

A Template need not have any Options, and can even have extra Option Points available. Such a Template can later be rebuilt to include more Options, up to it's maximum limit, but Options cannot later be removed. The Craft checks to do so treat the item as if it cost credits equal to the difference between the original price, and the price modified by the new Options. An item's Quality cannot be changed after it's construction.

GEAR COMPLEXITY

There are several Complexities of gear, each of which indicates the basic difficulty in Crafting it, as well as what level of technology is required to do so and how tough the finished item is. The table below illustrates each of these levels, from lest to greatest, and gives examples. The table following it gives the typical Hardness of materials. Hardness counts as both Damage Reduction and Energy Resistance for any object made primarily from that material, or encased in it. No item can have a Quality higher than 10, or less than 1.

TABLE 3-1: GEAR COMPLEXITY

Complexity	Example Craft DC	Hit Point	Example
Primitive	5 + Quality	divide by 1	A club or rock
Simple	10 + Quality	divide by 2	A sword
Basic	15 + Quality	divide by 4	A projectile weapon, slug-thrower, or suit of light or medium armor
Average	20 + Quality	divide by 5	An energy firearm, gyroc, suit of heavy armor, or case computer
Great	25 + Quality	divide by 7	A suit of powered armor, pocket computer, or ground vehicle
High	25 + (Quality x2)	divide by 10	A robot, datasheet computer, or flight-capable vehicle
Amazing	25 + (Quality x2)	divide by 15	A Cybernetic implant or space-capable vehicle

TABLE 3-2: MATERIAL STATISTICS

Material	Hardness	Hit Points/lb
Paper, cloth, rope, ice	0	2
Glass	1	1
Leather, hide, and flexible plastic	2	5
Wood and rigid plastic	5	10
Stone, basic metals, high-strength plastic	8	15
Forged iron, steel, polymer alloys	10	30
Composite ceramics and steel alloys	15	40
Industrial ceramics and metal alloys	20	50

Objects tend to have Hit Points based on their Quality and Weight, modified for Complexity. Less complex objects are harder to render incapable of functioning, and therefore have more Hit Points. As a general rule, and object has Hit Points equal to it's weight in lbs x primary material's Hit Points/lb rating (metal, stone, wood, and so on) x Quality. This is then *divided* by it's complexity (from 1 for a stone tablet, to 10 for a datasheet). An object reduced to 0 Hit Points is no longer functional, but can be salvaged or repaired. An object reduced to -1/2 maximum hit points is **totally** obliterated, and only has value as raw materials of the simplest sort (typically 1% to 5% of the original item's value).

UNKNOWN TECH PENALTIES

Different races have different technologies. That's a simple fact. And some technology advances or is lost over the eras, causing only relics of it to remain behind. Every technology type has a Type designator. This indicates who knows how to make it and who understands how it works.

If you lack the designator for a given technology, you cannot build any device of that type without a strict blueprint of the exact device before you. You cannot build a device of a quality higher than the one depicted in the blueprints. You take a penalty on all repair checks to the device of -10, unless a specific repair manual is available for the device, in which case the modifier is -4.

Lost: Technologies of this designator are Human technologies which were developed and then lost when the Necrol invasion took place. Lost technologies include True Artificial Intelligence, Force Projection, Gravity Control (instead of brute field generation), and High Yield Anti-Matter Production (often referred to as "Annie-Pods").

Magi: Technologies with this designator are the devices produced by the folk know as the Magi. Magi technologies include advanced uses of Nanotech interfaces, Holographic projection, and Nanotech Construction.

Racial: Each race has its own technology designation, which denotes technology solely developed by that race.

Gaining a Designation

In order to gain a designation, you must be part of a group with the appropriate designation. In most cases, this means being a member of the race that created the technology, or having the Magi feat for the Magi technology designation. Obviously, gaining the designation 'Lost' is almost impossible, and would require access to a race or group which had developed to that level of technology.

MAGI-TECH

Magi-Tech is a technology descriptor gained by people with the Magi feat. These people use technology and showmanship to approximate the magic of legends and stories, often finding shortcuts and bizarre blends of disciplines that allows them to create effect nobody else can!

Armor

Nightweave: A poetic name for a basic concept. "Nightweave" is an Option that can only be applied to Light armors, but only if they have at least one level of RAM. It allows the armor to change it's absorbed radiation settings to not only protect the wearer from radiated energy attacks, but also to hide him from electronic sensors as well! This Option makes it so that any sensor system that would normally detect the wearer's presence makes any check to do so at a -4 penalty for every point of RAM the suit has. IT does not increase the price of the armor, but does take up one Option point.

Weapons

Arc Bolt: This Option can only be built into magi-built blaster weapons with the Autofire and Magi-Targeted ability. In place of a normal Autofire attack, the wielder can choose to target any number of foes up to the amount of dice from one of the weapon's attacks. When he attacks, he uses the one to-hit roll to see if he has struck *each* of the target's Defensive Classes. The weapon's attack appears to arc from the nearest target struck to the furthest. It's base damage dice are divided equally among all the targets struck, with any left-over going to the first target hit. Divide the extra damage from a high to-hit roll by the number of targets *attacked*, rounding down, and add that to the amount of damage dealt to each target *hit*. This Option costs an extra 25% of the weapon's base price, but uses up no Option Points.

Magi-Targeted: The weapon has been designed to look like a "magical device", and therefore has no obvious means of targeting or firing. This is most often a wand, staff, rod, or glove but other designs are certainly possible. The weapon can only be fired by a Magi that it within 15 ft, using a coded radio pulse sent out by a Radio Implant. Even if radio transmission is normally blocked, or if two Magi are trying to control the weapon, the weapon will accept commands from any magi grasping it in preference to any other commands. The firing Magi also gains some of the benefits of a Cyber Sight, even if the weapon does not include one. If that is the case, then he gains a +1 to hit with the weapon as well as control over it's Options. If the weapon *does* include a Cyber Sight then he can use the Cyber Sight even if he is not "jacked in to" or even *touching* the weapon! This Option costs no extra cash, but does take up 1 Option Point.

Robots

Familiar: Only Diminutive PC Chassis robots can have this Option. The robot must be designed to appear similar to a living creature of some sort, typically a cat or bat but owls are popular as well. The robot shares a nearly telepathic link with it's creator, a Magi who has a Radio Implant. The robot and the Magi treat their respective Qualities as being 10 points higher for purposes of communication, and can share information back and forth almost instantaneously. If the Magi has a Cerebral Computer, he can even run programs for the robot's benefit! A magi can only have one robot with this Option functional at any given time, if a new one is brought on-line then any earlier ones lose the benefits of this Option while the new one is on-line. This Option adds 100% to the robot's base price, and takes up 2 Option Points, but it includes the Disguise (total) Option as well!

Nano

Magi: Magi nanomachines use tricks with ambient gravity fields to propel themselves under partially borrowed power. This results in them being less expensive to build with Movement. Any nanite designed and Crafted by a Magi reduces the costs of it's Movement by the following factors: Option Points are reduced by 2 (to a minimum of 0), the Lifespan modifier is halved, and the Price modifier is reduced by 50% (to a minimum of 0%).

Magi Compression: The device with this ability must have either the Cohesion, or Molecular Alteration function. It must also have a point of Data Storage devoted solely to this ability. The nano colony is capable of cooperatively using it's Cohesion or Molecular Alteration function to assemble devices of up to Basic complexity, instead of just Simple complexity devices. If it has Major Cohesion, or both Major Cohesion *and* Broadcast Transmission then it can even assemble devices of up to Average complexity if it allocates *three* points of Data Storage to this ability! If it has both Energy Sense and Molecular Alteration, it can also be used to create an artificial broadcast receiver in a target device. This ability costs 1 Option Point and increases the price of the nano colony by +25%.

GORBRASCH TECH

The Gorbrasch are a race of fluid gelatinous sacks that evolved on a planet mostly covered in warm seas and freezing-cold breezes blowing over innumerable island chains. Their lack of a brain structure makes them incapable of developing psionics, a fact they had to overcome in order to reach the stars. Their technology reflects the discoveries they have made in order to adapt to such a dichotomy in their environment, and to attain interstellar travel.

Armor

Fluid Armor: Gorbrasch have learned how to craft their personal armor from materials that temporarily become fluid after they are struck, possibly flowing back together in order to repair itself. Whenever a Gorbrasch suit of armor that has this Option is breached, it makes a Quality check against a DC of 15 to see if it repairs a point of Damage Threshold. Only one point is regained on such a check, so attacks that deal more damage to the armor's Damage Threshold can still ruin it, as can breaches not fixed due to failed Quality checks. This Armor Option costs 3 Option and increases the price of the Armor by +25%.

Genetics

The majority of the Gorbrasch race has undergone some form of genetic enhancement, a practice they have been tinkering with for eons. This has split them up into innumerable smaller sub-species, the majority of which look similar but believe themselves to be the superior form of Gorbrasch evolution. To reflect their proficiency with altering their own DNA, Gorbrasch that get gene-jacked by Gorbrasch genetic engineering roll on the Disadvantages Table at -10% (with results of 0 or less meaning a stable alteration), and reduce the cost of the Advantage by 50%. This does not apply when other races gene-jack a Gorbrasch, or when they gene-jack another race.

Vehicles

Fluid Hull: Gorbrasch have learned how to craft their vehicle armor from materials that temporarily become fluid after they are struck, possibly flowing back together in order to repair itself. Whenever a Gorbrasch vehicle whose armor has this Option is breached, it makes a Quality check against a DC of 15 to see if it repairs a point of Damage Threshold. Only one point is regained on such a check, so attacks that deal more damage to the armor's Damage Threshold can still ruin it, as can breaches not fixed due to failed Quality checks. This Vehicle Armor Option costs 3 Option and increases the price of the Vehicle Armor by +25%.

Force-Shell Ionic Drive: Gorbrasch attained interstellar travel without being psionic by means of this Drive System, which allows their ships to eventually attain travel at a significant portion of the speed of light. This Vehicle Drive System uses a weak but wide-flung gravity well to draw in interstellar hydrogen, which it then compresses in a magnetic bottle that is under extreme gravity. This forces the hydrogen to shed it's electrons, which go into providing energy to run the system. The stripped protons are ejected under pressure from the back of the magnetic bottle, propelling the vessel forward slowly. It only takes one point of Charge per unit of Thrust to get the system started, after which it provides it's own power. Vehicles using this Drive collect more hydrogen the faster they travel, providing more Thrust as their Velocity increases. This is represented by having their maximum Velocity be 5 on their first day of operation, and it goes up by 5 for every doubling of the previous interval (i.e. 5 on day 1, +10 two days later, +15 four days later, +20 eight days later, and so on). Over time, this system can easily reach relativistic speeds of up to 5% of the speed of light per point of Quality. Deceleration is at the same rate. This Drive System has the following statistics, but can only be used in space.

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity	Fuel Use	Maneuverability
Force-Shell	5	Quality	2,000 x Quality	10	10 x Quality	Amazing	None	45/50 ft

Binary Symbiosis: This is an Option that can only be applied to Living Gear items. The item is actually two or more pieces of Living Gear constructed so as to be symbiotic to each-other. Each provides for much of the nutritional requirements of the other. Overall the device is still treated as one item, but it only requires 24 hours spent in the sunlight (or growing lights) per week to remain healthy, water and food are only needed if it has to replace lost mass (i.e. ability score damage). Binary Symbiosis Living Items cost 2 Option points and increase the price by +100%.

Hibernating: This is an Option that can only be applied to Living Gear items. Whenever the item is at risk of losing Constitution due to lack of nutrients, it instead goes into a state of suspended animation. Once it has received the nutrients it requires, it revives from this state. While in suspended animation it cannot heal damage and all of it's electronic and mechanical functions are no longer active (i.e. lasers will not fire, and robots will not move). Hibernating Living Items cost 1 Option point and increase the price by +25%.

Living Gear: This is an Option that can be applied to any device that has been wholly Crafted by an Orliss, even those devices that normally do not allow Options. The device has it's weight doubled, and requires both food and water. This amounts to one gallon of water, as well as either a full 24 hrs spent in the sunlight (or under growing lights) or a pound of meat, per 100 lbs of final weight each week. Every week they miss this nutrient requirement causes them to take 1d6 points of permanent Constitution damage. Living Gear has Hit Points equal to a regular item of the same type (no adjustments for their new weight), and an effective Constitution score of 10 + Quality, which has no effect on their Hit Points. They have a Fortitude save equal to their Quality, unless they are robots in which case you use the regular one for robots. They heal one Hit Point each day for every 100 lbs of weight (or part thereof), but only if they have received their weekly ration. They can also be healed using Orliss Sap. Crafting a piece of Living Gear requires a single point of Orliss Sap for every 100 lbs of the item's final weight, or part thereof, for each Craft check in addition to the material costs. Living Gear can interface with non-Living Gear as if it where normal gear. Only Living Gear tools can help in the Crafting or Repair of Living Gear items. The Heal skill provides a +2 synergy bonus to all Craft and Repair checks for Living Items for every 5 full ranks.

Living Items are not immune to biological agents, are treated as creatures by EM weapons, and can be affected by Telepathy if they have a built-in Computer of at least Complexity 1.

Seed Item: This is a piece of Living Gear that has been crafted into a seed, rather than a whole device. the construction process is the same as for Living Gear, but only 1% of the raw materials and Crafting time are required. The seed weighs 1% of the base item's weight, instead of double it's weight. If this amount is 1 lb or less, then an Orliss can craft it inside his own body in a special orifice designed for that purpose. Once finished, it can be planted at any future point in time. It does not require any nutrients until it is planted. Once planted it will convert the nutrients it is given into the form of the finished item, at a rate of it's Quality in percentage points of the final item's full weight every day. It must be given enough nutrients to equal the finished item's final weight, as well as any special elements the finished item requires, in order to grow properly. If this is not done, the seed will stop growing once it has reached the limit of the nutrients it is supplied with or the special elements it requires, and the items itself will not be properly functional. Seed Items only produce one finished item per seed. Only Living Gear tools can help in the Crafting of Seed Items.

Basic Gear

Living Battery: This is a Living Item Charge Pack designed to convert either direct solar energy or high heat (at least 80 degrees Fahrenheit) into electrical power. Every hour of direct exposure refreshes 10% of their maximum amount of Charge. These devices cost twice as much as a regular Charge pack. Orliss use these devices in series to produce either solar or geothermal power.

Producer: This device is a Living Gear item that has been designed as a factory to turn out other Living Gear items. It is 100 times the weight and cost of the item it is to manufacture. It's Hit Points are 100 times that of the item it is to build, and it has the same Complexity. If the device it is building has the Binary Symbiosis or Hibernation Options, then so does it. It usually has the same Quality as the item it is suppose to build, but higher-Quality versions can be made in order to build devices faster (with a proportionately increased price). If given the proper nutrients and elements that a seed item would need to produce the same product, then the Producer can make it *in one day!* If the Producer is of higher Quality than the item it is making, it produces the item in a fraction of the time equal to the item's Quality over it's own (i.e. a Quality 7 Producer making a Quality 2 device would make one such device every 2/7th of a day). Once a Producer is made, the device it builds cannot be changed. Orliss use these in the place of the factories that other races use.

Cyberware

Orliss Living Gear cyberware implanted into non-Orliss still heals itself, but the device's nutritional requirements are fed from the owner's personal reserves. This makes it so that these devices cause non-Orliss who are implanted with them to reduce their maximum Vitality by an amount equal to the Stress they have from Living Gear cyberware!

Bonded Implant: This Option allows a Living Gear piece of Orliss-created cyberware to almost function as if it where a natural part of the owner's body. The implant must be grown using a sample of the owner's DNA to add this Option, and is treated as not having it if implanted into somebody else. This Option allows any drugs or nanites taken by the owner to affect the implant as well. The implant does not need nutrients of any sort so long as it is implanted into it's rightful owner, the two being completely symbiotic, and thus does not cause Vitality loss. Finally, the die rolled to determine the implant's Stress is one size smaller (1, 1d2, 1d3, 1d4, 1d6, 1d8).

This Option costs 1 Option point, and increases the cyberware's price by +50%.

Robot

Living Gear robots are actually living creatures that have been designed to function from an internal store of electrical energy. They recharge this internal power normally, or by spending time in sunlight or high heat (at least 80 degrees Fahrenheit). Every hour of direct exposure restores 10% of their maximum Charge. They weigh just as much as other robots of the same design, but have half the Hit Points.

Replication: This Option allows a robot to produce more of it's own kind over time. A robot with this Option has the capacity to grow a Seed Item of itself at a rate of once every 100 days. The robotic seed must then be planted and grown until it hatches like an egg with roots, and the new robot comes out. Programs are carried from one robot to the other in the form of specialized RNA strands implanted into the seed during the final stage of it's Crafting. The new robot thusly has all the knowledge it's parent had at the time it's seed was finished.

SERKALTH TECH

The Serkalth home world is a volcanic ball of rock and boiling seas in a binary star system, with an eccentric orbit that keeps most of the planet bathed in light all the time. It's thin atmosphere is added to when it passes through the orbit of a ring of escaped hydrogen and oxygen vapor every 20 days. This is one of the most inhospitable places in the universe, and an unprotected human would not last even a second on the planet's surface. The Serkalth have developed technologies that allow them to manipulate their environment, while taking advantage of it. Most of their special technology only works at extreme temperatures, requiring constant heat in order for it's circuits to function properly.

Weapons

Grav-Pulse Weapon: Serkalth can build weapons that produce a focused bolt of alternating anti-gravity and heavy-gravity field. These weapons only work if fired in an environment of at least 250 degrees Fahrenheit, or from a vehicle with an on-board temperature that high. This is an Charge-powered device, one that uses up 1 point of Charge per die of damage. It ignores half the target's Damage Reduction, due to a shredding effect from the bolt!

Shot Type	Name	Die Size	Price Mod	Clip/Charge	Range	Weight	Notes
Grav-Pulse	Grav	d8 Bludg	+200%	divide by 2	x4	x5	Only works in 250 degrees Fahrenheit area

Vehicles

Serkalth gravity control technology is far more advanced than that of other races, but requires an ambient temperature of at least 250 degrees Fahrenheit to work at all. Serkalth-Tech Anti-Grav Drives, Anti-Grav Lift Systems, and Artificial Gravity Systems weigh half as much, and require half the amount of Charge.

Other

Darkan Generator *(Quality Varies, Average Complexity, Points/100/Quality lbs, 1/5th lbs Hit Point, Hardness 5):* This device is scalable to any size, similar to a Charge Pack. When in an environment of at least 250 degrees fahrenheight, it converts it's own miniscule gravity field into energy. This lets it produce an amount of Charge each minute equal to it's rating points times it's Quality. The Serkalth home world is powered by these devices, as are most of their interstellar craft. As time goes by the metals and slats that comprise the core circuits break down into smaller elements, requiring that they be replaced. A Darkan Generator can operate for a year of continuous activity before this happens. They use layers of heat shielding to prevent heat loss to the depth of space for their space craft, shielding which functions as impressive armor. Darkan Generators cost 1 credit per rating point, times Quality (Rating x Quality).

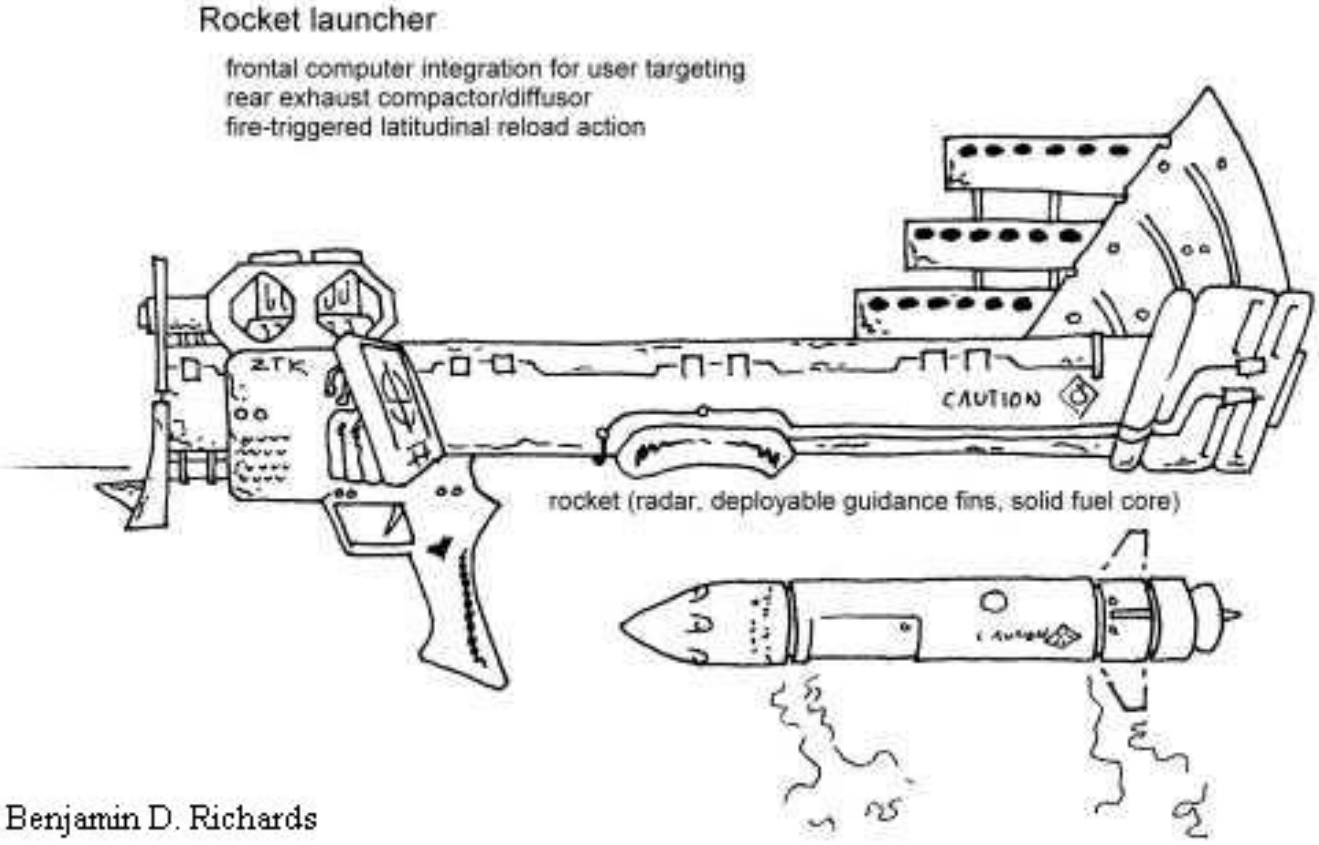
FIVE: PERSONAL GEAR

MONEY

The base system of monetary exchange in the Dead Stars game is the "credit". This means different things depending on the genre you are playing in. In a medieval-style game, this would refer to a single gold coin. In a modern-era game, a US dollar bill at the time of the year 2000. In a near-future game, a single unit of buying power whose worth is guaranteed by a corporation or bank rather than a government.

In the sci-fi/horror setting for Dead Stars, this refers to the only commonly-valued and universal item: a single blank programmable solid state electronics chip. While the chip itself is only the size of a spec of dust, the plastic and ceramic housing around it gives it the appearance of a thin disc that is a half-inch in diameter. Credit chips can be altered with an electronics toolkit to produce any electronic device, even Charge Packs! While other materials might be needed for larger-scale components (such as antennae), all the materials to make a circuit board of any type can be derived from credit chips.

Corporations and governments also have dedicated credits. These have the buying power of a credit chip, and are held in computer accounts within the facilities of these institutions. These credits can only be used to purchase goods and supplies from the institution that issued them, insuring a labor force and customer base. Dedicated credits can be sold to another party, but the typical exchange rate is 50% value if you are selling them to a private individual, or 25% if you are selling them to another institution.



ARMOR

Flesh is soft, prone to being torn to ribbons or turned into a pile of ash at the least little bit of urging. High-strength plastics and alloyed metals, on the other hand, are not! That is why people wear armor: to protect their vulnerable flesh (or fragile crystal) with a layer of hard-to-damage materials, ad thereby avoid taking damage themselves.

This section talks about the customization system as it applies to the science-fiction setting that the base Dead Stars system uses. It includes descriptions of all the basic armor templates, as well as their Options, and even includes a step-by-step guide to constructing your very own custom armor.

Armor is specific to the species, the various player races are too anatomically dissimilar to use one-another's clothing let alone armor!

Step-by-Step Armor Design

Armor is doubtlessly the simplest type of technology to customize in Dead Stars, making it a good place to introduce everybody to the technology system. You choose a "Template" from Table 9-x: Custom Armor Templates, pick a Quality for it from 1 to 10, then assign any Options you want that it can handle. More expensive, and higher-Quality, armor can have more points worth of Options. The more Options a suit of armor has the more it costs, but the better it performs! To help you through this process, I'm going to go over armor customization a step at a time, complete with an example suit of armor we will design together. The examples are below each step, in italics.

Do not be afraid to go back one or more steps so you can get something you forgot or need.

When determining the cost and Weight of armor, always round fractions down after applying any Options.

Armor Design Steps

#1 Choose Armor's Race
#2 Choose Armor's Template
#3 Choose Armor's Quality
#4 Determine Armor's Base Cost
#5 Determine Armor's Maximum Options
#6 Choose Options
#7 Calculate Armor's Statistics
#8 Total Armor's Price
#9 Find Armor's Gear Level

#1 Choose Armor's Race

Which race is supposed to be able to wear the armor? This is important, as an armor's designed race indicates the only race that *can* wear it! This means that a suit of armor designed for a member of one race cannot be used for another race, except to serve as spare parts to rebuild. Armor rebuilt for another race must use the original armor's Template, Quality, and Options. Orliss are the only exception to this. One race's armor is statistically exact to the same armor for another race, same weight cost and everything, except for Drakes whose armor and clothing are half-weight (but full cost). Orliss PCs are engineered to be perfect anatomical (but not biological) replicas of humans, so they can share armor and clothing without difficulty.

Sharak knows that the surest way for his life of adventure to end, is for his life to end! To keep this from happening, he decides to custom build himself a suit of armor, after all he is *a Technician. Might as well take advantage of it. He is a Flakam, and decides that designing armor for another race when he is supposed to wear it is kind of stupid.*

#2 Choose Armor's Template

Now you look on Table 9-x: Custom Armor Templates, and pick your base suit of armor. The table is divided into armor categories, with Powered Armor getting a special entry at the bottom. the better, and heavier, your base armor Template, the more protection it can afford you and the more Options it can tend to take. Also, the more expensive it is so watch out!

As a Technician Sharak can only wear Light armor. He is kind of strapped for cash, with a budget of only 500 credits, so he decides to go for a cheap Template. Looking on the table, he sees that an Explorer's Suit is the most cost-effective, but it is also pretty damn heavy for his light crystalline butt. So he chooses the appropriately named Tech Suit. This Template has DR 3, ER 3, Max Dex +8, Check Penalty -0, Weight 10 lbs, Max Options 1 + Quality, Damage Threshold 1 + Quality, and Base Cost 75 x Quality.

#3 Choose Armor's Quality

Now you have to choose the Quality of your armor, the competence of it's design and manufacture, and the overall appropriateness of it's materials. The higher this value is, the more expensive the armor's Base Cost will be, but the more Options you can pack into it and the more damage it can take while still being effective (or even usable). If you do not want to integrate any Options, skip step #5 and #6. Quality of an armor cannot be changed after it is designed.

Sharak decides to blow a significant portion of his bank account on the armor, so he puts the Quality up a few notches to Quality 5. This gives the Tech Suit Max Options of 6 (1 + Quality), Damage Threshold 6 (1 + Quality), and a Base Cost of 375 (75 x Quality).

#4 Determine Armor's Base Cost

Multiply the armor's Template cost by it's Quality to find it's Base Cost. Now record this value, you will need it later.

Sharak's Tech Suit has a Base Cost of 75 x Quality, this totals out to 375 credits.

#5 Determine Armor's Maximum Options

Use the formula given for the armor Template's Max Options to determine how many Options it can have. Record this, again you will need the total later.

Sharak's Tech Suit has a Max Options of 1 + Quality, for a total of 6.

#6 Choose Options

Now comes the fun part...adding in goodies! Go to Table 9-x: Custom Armor Options, and start picking. Record the points of each Option, and the Price Mod of each one. you cannot have more total points worth of Options for a suit of armor, than the armor has Max Options. Add together the percentages from all the Options you take, and record it. You will need this total later. Options can later be integrated *into* a suit of armor by treating it as a Craft task with a credit cost equal to the difference in the armor's old and new price.

Sharak is torn. His Strength is really low, so he knows he will not be able to carry much. He can drop his armor's weight, or increase it's protective value... He kicks himself mentally, of course he is going to increase the protection! What is the point of armor otherwise? He takes Extra Plating twice (2 Options and +50% Price total) to stop slug rounds, Micropocket Weave twice (2 Options and +200% Price total) to save himself from needlers and other pointy things, and R.A.M. Lining once (2 Options and +100% Price total) to help against all forms of energy. This gives him a total of all 6 Option points he can have, and +350% Price.

#7 Calculate Armor's Statistics

Now you have to determine just what your armor does, a relatively easy prospect. To help you, keep in mind that Damage Reduction protects from three types of damage (Bludgeoning, Slashing, and Piercing), while Energy Resistance protects from three types of energy (Electricity, Fire/Laser, and Radiation). Modify all your armor's values by the statistics that the Options you took indicate.

Sharak's Tech Suit armor ends up with a Damage Reduction of 3 (7 vs. Bludgeoning, 3 vs. Slashing, 9 vs. Piercing), Energy Resistance 4 (general +1 from R.A.M. Lining Option), Max Dex +8, Check Penalty -0, Weight 10 lbs, Max Options 6 (6 Options taken), Damage Threshold 6, and Base Cost 375. Not to shabby for a light suit!

#8 Total Armor's Price

This part requires a little calculation, but is pretty easy once you do it a couple times. First, you take the value you have for your armor's Base Cost from step #4, and find the percentage of it your total percentage from step #6 represent. Then you add the base Cost from step #4 to that value. Now you know how much it takes to buy that suit of armor! Keep in mind that if you are making it yourself ***after character creation*** that you only need to spend 25% of that amount for materials, and enough Craft task time to finish the job.

Sharak's armor Base Cost is 375, his armor Options are +350%. The cost for the Options is 350% of 375, or 1312.5 rounded down to 1312 credits. This is added to the Base Cost of 375, for a total price of 1687 credits for the armor! Good thing he is building it himself, for a total materials cost of 421.75 rounded down to 421 credits. Well under budget.

#9 Find Armor's Gear Level

Now you use TABLE 5-3: ARMOR GEAR LEVEL to find out what Gear Level your armor is. This is easy, just add up all the values on the table that apply to your armor! This actually comes out to a value for the armor's type, plus half it's Quality (rounded down).

Sharak's Tech Suit is Light Armor (1), of Quality 5 (+2.5 rounded down to +2). This means his armor's Gear Level is a total of 3 (1 + 2).

TABLE 5-1: CUSTOM ARMOR TEMPLATES

Light Armor	Damage Reduction	Energy Resist	Max Dex	Check Penalty	Weight	Max Options	Damage Threshold	Base Cost
Flight suit	2	2	+9	-0	5	Quality	Quality	50 x Quality
Tech's suit	3	3	+8	-0	10	1 + Quality	1 +Quality	75 x Quality
Explorer's suit	4	4	+7	-1	15	3 + Quality	2 +Quality	100 x Quality
Light combat suit	5	5	+6	-2	20	5 + Quality	4 +Quality	150 x Quality
Medium Armor								
Riot vest	6	6	+5	-3	25	5 + Quality	3 +(Quality x2)	200 x Quality
Boarding suit	7	7	+4	-4	30	8 + Quality	4 +(Quality x2)	300 x Quality
Exploration suit	8	8	+3	-4	35	8 + Quality	6 +(Quality x2)	500 x Quality
Medium combat suit	9	9	+2	-5	40	10 + Quality	8 +(Quality x2)	750 x Quality
Heavy Armor								
EVCS suit*	10	10	+1	-5	50	5 + Quality	7 +(Quality x3)	1000 x Quality
Drop suit*	11	15	+0	-6	60	Quality	9 +(Quality x3)	1500 x Quality
Assault armor	12	20	+0	-6	45	12 + Quality	12 +(Quality x3)	1750 x Quality
Heavy combat suit	13	25	+1	-7	50	15 + Quality	17 +(Quality x3)	2000 x Quality

Powered Armor	Damage Reduction	Energy Resist	Size	Internal Charge Pack	Effective Strength	Max Dex	Check Penalty	Weight	Max Option	Damage Threshold	Base Cost
Field Chassis	15	20	Medium	2400 (120 min)	20	+2	-4	280	5 + Quality	15+(Q x4)	5000 x Q
Mobile Platform	20	25	Medium	1500 (60 min)	25	+1	-5	300	10 + Quality	18+(Q x4)	5000 x Q
H.A.R.D. suit*	25	30	Large	7200 (240 min)	30	+0	-6	425	5 + Quality	20+(Q x4)	10,000 x Q
Assault Chassis	30	35	Large	2400 (60 min)	40	+0	-10	525	15 + Quality	25+(Q x4)	15,000 x Q

Damage Reduction: How much Bludgeoning, Slashing, or Piercing damage the armor can deflect before it is penetrated, the rest being applied to the wearer!

Energy Resistance: How much Electricity, Fire/Laser, or Radiation damage the armor can deflect before it is penetrated, the rest being applied to the wearer!

Max Dex: The highest Dexterity bonus the wearer of the suit of armor can apply to his Defensive Class, Initiative, Reflex save, or any Dexterity-based skill.

Check Penalty: A penalty applied to all of the following skills when wearing the armor: Balance, Climb, Escape Artist, Freefall, Hide, Jump, Move Silently, Pilot, Sleight of Hand, and Tumble.

Weight: How much the armor weights in lbs.

Max Options: The maximum amount of Option points worth of Options the armor can ever have.

Damage Threshold: The number of times that the armor can be penetrated before it starts to lose defensive value. Keep track of the total amount of times the armor is penetrated, every multiple of this value the armor's Damage Reduction and Energy Resistance are each reduced by one point. Armor can also be attacked directly in melee combat (called "Sundering Armor" and it provokes an attack of opportunity), with the armor's Energy Reduction and Damage Resistance only counting half as much, with any damage that bypasses these reduced values being applied point-for-point as counts against it's Damage Threshold! Once either value is reduced to zero, the armor is destroyed and unusable (10% of the purchase price can be scrounged together as armor-making materials). Any time before this, the count towards it's Damage Threshold can be reduced by a Repair check.

Base Cost: How much a suit of armor of the hosen Template and Quality costs, before Options are applied. If no Options are taken, then this is simply how much the armor costs entirely.

Size: most suits of armor are the same Size category as their wearer, but Powered Armor has a Size category independent of the type of being it was designed for. Powered Armor also tells how large of a creature can fit inside of it.

Internal Charge Pack: The number of points of Charge that the Powered Armor's Charge pack can hold, at Quality 1. higher Quality suits of Powered Armor do not automatically have higher-Quality Charge Packs. This also lists how many minutes of continuous operation the Powered Armor can run before it's Quality 1 Charge Pack is exhausted.

Effective Strength: How strong the wearer of a suit of Powered Armor is considered to be when he is wearing the suit. If the user's Strength score is higher than this, use his Strength score but add a bonus to it equal to the Quality of the Powered Armor.

Armor Descriptions

Assault Armor: This suit of heavy armor is designed to provide maximum protection without sacrificing too much maneuverability for infantry troops carried to the battle by vehicles. It is essentially a compromise between the protection of a suit of Heavy Combat Armor, and a Boarding Suit's mobility.

Boarding Suit: This flexible and relatively light suit of heavy armor is designed to enable the wearer to rapidly board an enemy vessel or facility, while under fire, and entrench. It provides just enough protection to keep the wearer upright for a shot or two, until he reaches cover.

Drop suit: This modified EVCS suit is designed for the landing of an individual soldier from orbit. It's weight includes a 15 lb ram-jet thruster that uses compression from atmospheric entry to slow the decent, firing off a 5 lb concussive charge just before landing in order to cushion the fall. It's internal air supply will last up to 10 minutes, as will its supply of liquid coolant, both of which are contained in the thruster pack. Once expended the thruster can be released as a standard action. The suit can be used to enter solid-surface planets with at least 0.5a and up to 1.5g.

EVCS suit: EVCS stands for "Extra Vehicular Combat Suit", and that is exactly what it is. Designed for fighting in hard vacuum, it has atmospheric scrubbers and environmental control systems, as well as a basic radio communicator, built into the suit. The extra poly-lead shielding provides it with 20 points of Energy Resistance against radiation, instead of the 10 listed for it. It can run for up to an hour on an E cell if the magnetic boots are in use, and twice that long if it is just floating in space.

Exploration Suit: A heavier version of an Explorer's Suit, this armor provides protection from more than basic environmental hazards. It is tough enough to provide valuable combat protection even against wild beasts, while still being mobile enough to allow the wearer to crawl through tight spaces, and light enough to let him run fro the *big* threats!

Explorer's Suit: A light and flexible full-body suit of armor designed to protect the wearer from environmental extremes that can commonly be fund on life-supporting planets. It provides protection from thorns, extremes of heat and cold, water, and sunlight while still being flexible enough to allow for climbing into or out of hard to reach places.

Flight Suit: A skin-tight suit of tough plastic weaves and flexible plastic plates meant to provide maximum freedom of movement. It's main purpose is as minor protection for space ship crews during combat, preventing them from being cut by jagged bulkheads or shocked by exposed wiring. It provides the absolute minimum possible amount of protection, while still being able to be referred to as "armor".

Heavy Combat Suit: The next step up in protection from the Assault Armor. This suit is so bulky that it has to be assembled around the wearer! It is one step below a Powered Armor, a hinged chassis covered in armor plating.

Light Combat Suit: Sometimes referred to as "Guerilla warfare armor", this light and flexible suit provides enough protection to survive a hit from somebody you are ambushing, while being mobile and light enough that you could sneak up on somebody *to* ambush them! Not meant for straight head-to-head combat, this is the armor of choice for those into dirty tricks and sneak attacks.

Medium Combat Suit: This suit of armor is designed for those who have to travel long distances

through semi-exposed enemy terrain, where protection and stealth are equally valuable. It provides enough stopping power to save somebody from light arms fire, while not being so bulky that they will announce their approach to anything with ears.

Riot Vest: This heavy body case also has attached arm and leg sheathes for added protection. It is designed for use by sizable groups of teams against lightly-armed larger groups, such as in riot situations (hence the name). It is mobile and light enough that the owner cannot be easily outrun, but provides enough protection to stop some small arms, and most common melee weapons.

Tech Suit: This armor is designed primarily for protection from hazardous elements in a laboratory, rather than in combat. It is flexible and easy to wear, even by somebody not accustomed to armor, but will prevent minor shocks, flying debris, and even the weaker explosions from accidentally-discharged slug-thrower rounds (but not the bullet).

Powered Armor

Powered armor uses artificial muscles and computer-controlled sensor technology to allow the wearer to become vastly more combat capable than he normally is. Unlike other armor, Powered Armor does not count towards the wearer's Encumbrance, as it's artificial musculature carries all of the weight. While suing a suit of Powered Armor, the armor's Strength is used to determine the character's Encumbrance.

Every minute of operation uses one point of chare from the Powered Armor's internal charge pack for each point of Strength the armor has. Charge Packs cannot be any heavier than the ones listed for the armor, but the armor is considered to have only Quality 1 charge packs. Thus the armor's total running time can be improved by using higher Quality charge packs. Powered Armor cannot draw energy from a Charge Pack that has a higher Quality than it does.

All suits of powered armor have a built-in datasheet computer running a robotic OS program. The Quality of the computer and OS program equals the Quality of the suit. This computer runs the on-board communications system (radio communicator with the same Quality as the suit), and the force-feedback control sensors that tell it where and how to move. It has the capacity to run other programs as well, and is often running a Security program to prevent the suit from being taken over by remote control.

Powered Armor is designed to absorb as much damage as possible. Whenever it is penetrated, compare the amount of damage that was dealt to the damage reduction or energy resistance of the armor (whichever is applicable to the damage type). Powered Armor converts every point of damage past it's DR/ER to damage against the armor, counting that damage as points towards it's Damage Threshold. Damage past *twice* it's DR/ER overwhelms the armor's capacity to protect it's user, and is instead the excess is applied to the user of the armor. This means that it takes a BIG hit to harm the armor's user before the armor is destroyed!

Field Chassis: This suit of armor requires that the user's arms and legs fit into the suit's, with a helmet and sealed neck guard protecting his head. The suit's main function is to provide short-term magnified strength to technicians that have to move heavy gear across battle lines. While it is tough enough to take hits fro some impressive weapons, and strong enough to carry a few of it's own, it really is just the light-weight in the Powered Armor category.

Mobile Platform: This suit of armor requires the user's arms and legs fit into the suit's, with a helmet and sealed neck guard protecting his head. The suit is intended to be used as a means of moving heavy weaponry and it's operator a safe distance from a position, so that return fire does not destroy the position or the operator!

Assault Chassis: When it comes to laying the smack down, accept no substitutes over this beauty. It is designed with an internal fetal-position seat that the user sits within, making this a kind of very-small-size vehicle! The suit's external limbs, and even it's "head" are filled with hydraulics and sensor equipment for the user. It is designed to be deployed from a large crew bay, or small cargo bay, loaded with heavy weapons. The idea is to use it as a one-unit shock troop, laying down heavy fire cover for those behind it while attracting as much fire as it can withstand.

H.A.R.D. Suit: This suit of powered armor's acronym stands for "Hazardous And Radioactive Defense". The suit's external limbs, and even it's "head" are filled with hydraulics and sensor equipment for the user. It is equipped with a built-in environmental scanner with a Quality equal to that of the suit, as well as environmental protection systems equal to those of a Environmental Suit of equal Quality. In addition, it can be pressurized for operation in hard vacuum, or up to 10 atmospheres of pressure, providing oxygen with internal O2 scrubbers. Use of the suit in this mode causes it to consume an extra point of charge every 10 minutes of operation.

TABLE 5-2: CUSTOM ARMOR OPTIONS

Options	Points	Price Mod
Coolant Packs	2 per	+25% per
Custom Fit	5	+100%
Extra Flexible	1 per	+25% per
Extra Plating	1 per	+25% per
Ghost Cloak	10	+500%
Heavy Carbon Fibers	1 per	+50%
Integral Device	1 per lb	+(device x 2)
Lighter Materials	3	+100%
Micropocket Weave	1 per	+100% per
Neural Interface	1	+10%
R.A.M. Lining	2 per	+100% per

Armor Options

Coolant Packs: The armor is built with internal heat-disbursing sections that draw heat away from one spot, to help prevent the armor from being burned through. This Option can be taken multiple times. Each time it is taken the armor's Energy Resistance to fire (which includes lasers) is increased by +2 (2 per Options, +25% per Price).

Custom Fit: The suit of armor is cut and molded until it perfectly conforms to the owner's body shape. The result is a more comfortable and easier to carry suit, with no loss of protection. The armor's weight is reduced by 25% (cumulative with Lighter Materials). Light armor can be worn as if it where clothing, medium armor can be worn with the Armor Proficiency (Light) feat, heavy armor can be worn with the Armor Proficiency (Heavy) feat, and this Option has no effect on Powered Armor (Options, +100% Price).

Extra Flexible: The armor is designed with extra moving pieces, covered over in armored material in order to prevent the loss of protection. This Option can be taken multiple times. Each time it is taken reduces the armor's Check Penalty by 1 and increases it's Maximum Dexterity value by 1 (1 per Option, +25% per Price).

Extra Plating: The armor has been built with extra overlapping plates, which slide when impacted in order to better distribute kinetic energy over a larger area. This Option can be taken multiple times. Each time it is taken the armor's Damage Reduction to Bludgeoning attacks (which includes slugs-thrower rounds) is increased by +2 (1 per Option, +25% per Price).

Ghost Cloak: This system imprints multi-spectrum passive imaging scanners and transmitters all over the armor, as well as pin-sized dedicated computers. When it is active it provides Concealment to the wearer, including being detected by active Sensor Systems. This means that all successful attack rolls against the wearer have a 20% chance of missing, and there is a -5 penalty to Search for or Spot the vehicle. Every round of operation uses up a point of Charge, and it can contain up to 5 point of Charge per point of Quality (10 Options, +500% Price).

Heavy Carbon Fibers: The armor is impregnated with long-chain carbon-iron fiber strings, which helps prevent it from being penetrated by edged weaponry. This Option can be taken multiple times. Each time it is taken increases the armor's Damage Reduction to Slashing and Piercing attacks by +1 (1 per Option, +50% per Price).

Integral Device: The armor has another device built into it, typically a weapon or Radio Communicator. The controls for this device are altered so that it can be operated while part of the suit, without difficulty. While integrated into the suit, the device only takes damage if the wearer fails a Reflex save to avoid damage. In such a case, the device is damaged as if it had been the target of the damage source. This Option can be taken multiple times, once per device. Each time it is taken the armor's price is increased by *twice* the price of the device integrated into it, which includes the purchase of the device itself (1 x lb per Options, special Price).

Lighter Materials: The armor is produced with cutting-edge lighter compounds than it is normally manufactured with. While lighter, the bonds of these compounds are much more stable than regular materials, and still provides the same amount of protection. This reduces the armor's Weight by 25% and it's Check Penalty by 2, but has no effect on it's protection (3 Options, +100% Price).

Micropocket Weave: The armor is formed with honeycomb-like layers of compacted material surrounding a small gas bubble. The formation of these layers is just as strong as regular armor, but has the effect of helping to deflect piercing attacks when it is struck, causing them to hit less true and therefore reducing their chances of penetrating the armor. This Option can be taken multiple times. Each time it is taken increases the armor's Damage Reduction to Piercing by +3 (1 per Option, +100% Price).

Neural Interface: This option allows a neural Jack connection to be established to a suit of Power Armor. While controlling the suit by use of the Neural Interface, the wearer can "feel" the suit as if it where his own body. This allows him to use the Power Armor's on-board Computer and Radio Communicator without any other interface, as well as adds the Quality of his Neural Jack to his Maximum Dexterity bonus and reduce the suit's Check Penalty by the same amount (1 Option, +10% Price).

R.A.M. Lining: The armor is constructed with one or more layers of Radiation Absorbent Material, which expands slightly when it comes into contact with electromagnetic radiation, and expels it outwards as heat energy by rapidly contracting. This helps to protect the wearer from all forms of hazardous energy, but the heat emission ends up negating any Sensor-defeating capacity this Option would provide. This Option can be taken multiple times. Each time it is taken increases the armor's Energy Resistance to all forms of energy by +1 (2 per Options, +100% per Price).

TABLE 5-3: ARMOR GEAR LEVEL

Armor	Level
Light	1
Medium	2
Heavy	4
Powered	8
Quality	+1/2

TABLE 5-4: EXAMPLE CUSTOM ARMOR

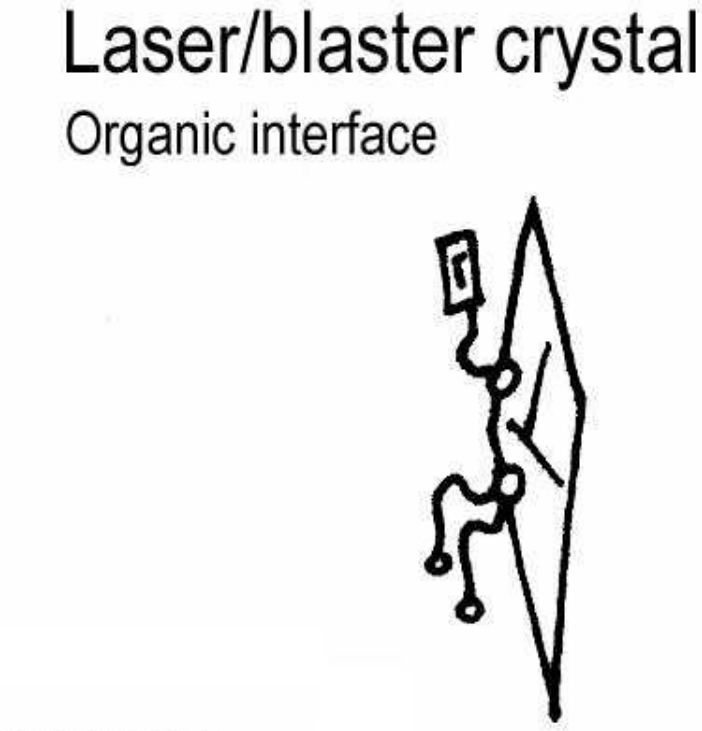
Armor	Type	DR	ER	Max Dex	Check Penalty	Damage Threshold	Weight	Quality	Price	Gear Level
Pilot's Flight Suit	Light	2	2 (4)	+9	-0	4	5 lbs	4	600	3
Options [2/4]: R.A.M. Lining x 2										
Sharak's Tech Suit	Light	3	3 (4)	+8	-0	6	10 lbs	5	1,312	3
Options [6/6]: Extra Plating x2 (+2 DR vs Bludg), Micropocket Weave x2 (+6 DR vs. Pierc), R.A.M. Lining										
Spider Hunter's Combat Suit	Light	5	5	+8	-0	10	20 lbs	6	3,600	4
Options [8/11]: Coolant Packs x2 (+4 ER vs. Fire/laser), Extra Flexible x2, Micropocket Weave x2 (+6 DR vs. Pierce)										
Assassin's Combat Suit	Med (Light)	9	9	+3	-2	26	20 lbs	9	55,687	6
Options [19/19]: Custom Fit, Extra Flexible, Ghost Cloak (45 rounds), Lighter Materials										

Layering Armor

It is possible, although not advised, to wear multiple suits of armor for added protection. This is done by wearing a lighter suit of armor, typically a Flight Suit, underneath a heavier suit. Even at it's most extreme only two suits can be worn at a time, and each must be of a different Armor Type (i.e. Light + Medium, Medium + Heavy, ect).

The benefit of layering armor is that you get to add together each suit's Damage Reduction and Energy Resistance values. The drawbacks are many-fold. First off, the character takes the Armor Check Penalty for the lightest suit and applies it directly as a penalty to his Dexterity ability score! In addition to this, his Maximum Dexterity that he can use is equal to the lowest of the two armors' Maximum Dexterity scores, minus an additional 2. As if this wasn't bad enough each attack that penetrates the *outer* armor's Dr or ER *still* counts towards it's Damage Threshold, and then to the *inner* armor's if it still has enough damage left to penetrate it as well!

Damage Reduction and Energy Resistance gained from racial, class, or personal enhancement sources has no penalty when layered. These sources of extra protection have no limits to the amount you can layer together, even with two suits of armor! Unfortunately they are subtracted from damage that is dealt to the character *after* the character's armor is subtracted, so the armor can still lose Damage Threshold even if the character takes no damage.



Benjamin D. Richards

WEAPONS

Weapons are used by many people for many reasons: defense, intimidation, or just to kill things. Weapons are some of the first things sentient creatures develop in their evolution, as a means of protection and survival in their worlds. As befits a set of devices that have been with a race since it first began to think, they have alternately been held in religious awe, though of as status symbols, reviled as primitive, and even been used to attract a mate. Every civilization everywhere owes it's existence, in one way or another, to weaponry.

It only stands to reason that as a culture advances, so does it's weapons. It is also reasonable to assume that weapons will change from one group to another, and even develop personalized traits that their owners and designers place upon them. In may ways, those who live on the brink of danger come to view their weapons more as *companions* than tools. This section details the system usable in Dead Stars to design such personalized companions, and details many of them.

Step-by-Step Weapon Design

Weapons are somewhat more complex to design than, which is why they are introduced afterwards. This section mainly concerns customized firearms and technological projectile weapons, but statistics for more primitive weapons are given as well. You choose a "Template" from Table 9-x: Custom Ranged Weapon Templates, pick a Quality for it from 1 to 10, then assign any Options you want that it can handle. More expensive, and higher-Quality, weapons can have more points worth of Options. The more Options a weapon has the more it costs, but the better it performs! To help you through this process, I'm going to go over weapon customization a step at a time, complete with an example weapon we will design together. The examples are below each step, in italics.

Do not be afraid to go back one or more steps so you can get something you forgot or need.

When determining the cost and Weight of weapons, always round fractions down after applying any Options.

Vehicle Design Steps

#1 Choose Weapon's Template
#2 Choose Weapon's Quality
#3 Determine Weapon's Base Cost
#4 Determine Weapon's Maximum Options
#5 Choose Shot Type
#6 Choose Ammunition
#7 Choose Options
#8 Calculate Weapon's Statistics
#9 Total Weapon's Price
#10 Find Weapon's Gear Level

#1 Choose Weapon's Template

This is very important, as it determines *everything else* about the weapon! From the number of dice of damage it deals, to how much ammunition it has, it all starts *here.* These are all chosen from TABLE 5-5: CUSTOM RANGED WEAPON TEMPLATES. Choose your Template carefully, so that it will fit your needs.

Sharak, newly fitted with some decent armor, decides to get himself a weapon. Even though the rest of his friends are taking everything from rocket launchers to blasters and lasers, Sharak decides to go for something he can use comfortably. He is a Technician, so he can use Simple Firearms, and decides to use a Pistol (#Dice 2, Base Cost 10 x Quality, Clip Size 10, Range 20, Weight 2, Max Options Quality).

#2 Choose Weapon's Quality

Pick the Quality of your weapon. Unlike armor, a firearm's (and most projectiles) Quality only determines how many Hit Points it has and how many options it can take. Due to this, the Quality of technological ranged weapons has no bearing on it's Gear Level, but it *does* affect the Base Cost! This is also the point where you choose any alternatives for your Template, such as using an internal magazine.

Pistols are cheap, and Sharak still has a chunk of change left after getting his armor, so he decides to go for broke and gets a Quality 10 Pistol. He won't be using it often, but he wants it to WORK when he needs it! Realizing that he will never need to reload it in a fight, Sharak decides to make it have an internal magazine instead of being clip-fed. This lets him get a free level of the Extra Shots Option.

#3 Determine Weapon's Base Cost

Multiply the weapon's Base Cost by it's Quality, to find it's actual Base Cost. Record this, you will need it later on.

Sharak's Pistol now has a Base Cost of 100 (10 x Quality).

#4 Determine Weapon's Maximum Options

Using the Template's listing for Max Options and the Quality you have chosen, find the number of Option Points it can have. Record this, you will need it later on.

Sharak's Pistol has a Max Options rating of it's Quality, and a Quality of 10, so it can have up to 10 points worth of Options.

#5 Choose Shot Type

Now you pick what exactly your weapon spits out in order to hurt things, it's Shot Type. Some Templates mandate a particular Shot Type, or a limited choice. The Shot Types they indicate can *only* be taken by those Templates, but those Templates cannot have other Shot Types! Popcans, Throwers, and Launchers can only use grenades or rockets, but nothing else can. Gyroc Pistols and Gyroc Rifles can only use Gyrocs, but nothing else can. Shot Type acts like an Option, but it is a mandatory Option that all technological ranged weapons *must* have! Shot Type des not require any Option Points, but it does have a Price Mod. Shot Types are chosen from TABLE 5-6: CUSTOM WEAPON SHOT TYPES.

Sharak decides to make his Pistol use Needles. The ammunition is expensive as hell, and doesn't do that much damage, but he is not planning on using it except in the

most dire of situations. His friends are taking the more cost-efficient and higher-yield weapons, Sharak wants something that will HURT on the rare occasions he has to pull it out! Not being able to use bigger weapons, he decides to go for armor penetration, hence the Needle Shot Type. The Needle Shot Type makes the Template deal d4s of Piercing damage, ignore half the target's DR, and has a Price mod of +200%.

#6 Choose Ammunition

Slug throwers and projectile weapons must decide what kind of ammunition they are using, other weapons do not. The choices for each are listed under the description of each one's Shot Type. Some are even designed in their own right! Most designed ammunition is designed using TABLE 5-7: GRENADES, GYROCS, AND ROCKETS.

even though it has a projectile, a Needle Shot Type weapon's ammunition design cannot be altered. They simply would not work if changed in the slightest! Thus Sharak doesn't have to worry about designing any ammunition, only paying for it.

#7 Choose Options

Now you can pick any amount of Options for your weapon, up to the maximum number of Options it can have. Be careful picking your Options, because once you have built an option into a weapon it cannot later be altered or removed! Weapons, like armor, can have more Options added later by Crafting them again, using the difference in the old and new price as the basis of the Craft check. The more Options a weapon has, the more expensive it gets. Options are chosen from TABLE 5-8: CUSTOM WEAPON OPTIONS.

Sharak wants his pistol to deal some SERIOUS damage. After all, what is the point of an emergency weapon if it cannot kill something in an emergency? To that end, he chooses the Full Auto Option (5 Options, +200% Price) so that even a near-miss will hit, and the Increased Damage Option (5 Options, +300% Price) so that each shot deals more damage than normal. He also gets the Extra Shots Option for free because it is magazine-fed instead of clip-fed. Sure, it will empty the magazine to use it, but anything in front of it will be TOTALLED!

#8 Calculate Weapon's Statistics

Now you must find out what the final weapon looks like. The Template gives you the general weapon type (Firearm or Projectile), and the type of proficiency required to use it (Simple, Martial, or Exotic). The Shot Type and the Template together give you the weapon's basic name (i.e. "Blaster Pistol", or "Grenade Launcher"). The Template tells you how big it is, so you know what size user can wield it. The Template tells you how many dice of damage it deals (#Dice), while the Shot Type tells you how big these dice are (Die Size), as well as the damage type dealt. The amount of ammunition the weapon can hold is determined by dividing the Template's Clip Size by the amount given for it's Shot Type (Ammo Clip). The weapon's Range is determined by taking the Range listed for it's Template and applying the multiple given for the weapon's Shot Type (Range). The weapon's Weight is found by taking the Weight for it's Template, and applying the multiple for it's Shot Type (Weight). All of these can be modified further by the Options taken for the weapon, as each Option indicates.

"Sharak's Emergency Needle Pistol" is a Diminutive Simple Firearm. It deals 2d4 Piercing damage normally, but the Increased damage Option jacks this up to 2d6, and it ignores half the target's Damage Reduction. It can hold up to 12 shots in it's internal magazine thanks to the Extra Shots Option, all of which are expended if it uses the Full Auto Option. It's Range is 40 ft. It weights 2 lbs.

#9 Total Weapon's Price

Now you need to see how much the weapon costs. This is found by taking the total of the weapon's Price mods for Shot Type and Options, then applying this total to the amount you recorded for it's Base Cost in step #4. Now add it to the amount you have from step #4, and you have it's Price!

Sharak's weapon has a total of +200% Price mod from it's Shot Type, and +500% from it's Options. This equals a total value of +700%! 700% of he recorded Base Cost of 100 is 700. Adding this to the Base Cost results in a Price of 800 credits.

#10 Find Weapon's Gear Level

Now you take a look at TABLE 5-9: WEAPON GEAR LEVEL, and add up all the lines that apply to the weapon. This will give you the Gear Level for the weapon.

The weapon Sharak wants is a Simple weapon (base of 1), a Firearm (+1), has Armor-Piercing ammunition (+1), is Full Auto (+3), and has Increased Damage (+1). This gives it a total Gear Level of 7.

SHARAK'S EMERGENCY NEEDLE PISTOL

Weapon Type	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Simple Firearm	Dim	40 ft	12 (mag)	2d6	Piercing	2 lbs	800	7	DR is half value
Options [10/10]: Extra Shots, Full Auto, Increased Damage									

TABLE 5-5: CUSTOM RANGED WEAPON TEMPLATES

Chassis	Category	Type	Size	#Dice	Base Cost	Clip Size	Range	Weight	Max Options
Crystal	Exotic	Firearm	Fine	1	50 x Quality	2	10 ft	na	1/2 Quality
Pistol	Simple	Firearm	Dim	2	10 x Quality	10	20 ft	2 lbs	Quality
Gun	Martial	Firearm	Tiny	2	25 x Quality	15	20 ft	4 lbs	Quality
Rifle	Martial	Firearm	Small	4	100 x Quality	20	50 ft	8 lbs	2 + Quality
Cannon	Exotic	Firearm	Med	8	500 x Quality	50	75 ft	16 lbs	10 + Quality
Popcan	Simple	Projectile	Tiny	ammo	5 x Quality	1	5 ft	2 lbs	Quality
Thrower	Martial	Projectile	Small	ammo	15 x Quality	4	10 ft	10 lbs	2 + Quality
Launcher	Exotic	Projectile	Med	ammo	40 x Quality	10	ammo	20 lbs	5 + Quality
Gyroc Pistol	Exotic	Projectile	Tiny	ammo	125 x Quality	15	gyroc	6 lbs	Quality
Gyroc Rifle	Exotic	Projectile	Small	ammo	200 x Quality	30	gyroc	9 lbs	2 + Quality

Weapon Descriptions

Chassis: The name of the firearm's type of Template.

Category: The type of Weapon Proficiency feat that weapons of their Template fall under (Simple, Martial, or Exotic).

Type: What type of ranged weapon this Template is (Firearm or Projectile). When combined with Category, this gives the individual feat that is required to use the weapon (i.e. category Exotic and Type Ranged is "Exotic Ranged Weapon")

Size: What size category the weapon itself falls under. Creatures can wield weapons up to their own size category, but no larger.

#Dice: How many dice of damage a single shot from the weapon deals. Weapons that are launching mechanism only, such as Gyrocs and Grenades, say "ammo", because these weapons deal damage based on the type of device they launch.

Base Cost: How much the Template for a ranged weapon costs based on it's Quality. This is further modified by the Shot Type and Options of the weapon.

Clip Size: How many shots the weapon's Template can hold in a Clip (removable ammunition storage device). Clips are weapon-specific, and this includes Charge Packs (this value is per point of Quality if using Charge Packs). This value is altered later on by the Shot Type (if any). Weapons can be designed to feed off of an internal magazine instead of a clip (including an external Charge pack), which gives them the Extra Shots Option. Reloading a magazine is a move-equivalent action that loads only 1 + Dexterity modifier shots, and provokes an attack of opportunity.

Range: The base distance the weapon's fire can reach before it starts to become inaccurate. This value is modified later on by the Shot Type (if any).

Weight: The base amount of pounds the weapon weights, modified later on by the Shot Type. This includes the weight of a full clip of ammunition, or a maximum-size Charge Pack.

Max Options: The utmost amount of points in Options the weapon with this Template can take.

Crystal: A small self-contained device that is implanted into the hand, and can be fired by holding the hand in a pre-programmed position. Crystals power themselves by chemical change, so they are incapable of being recharged. Implantation requires a simple Heal check against a DC of 15 made by somebody with the Surgery feat, and deals one Hit Point of damage. Once implanted they are DC 20 + Quality to detect by Search skill check, whether physical or technological (until they are fired of course). Cannot be reloaded.

Pistol: A small device about four inches square and a half-inch thick. They are exceedingly small and easy to use, making them very popular. Their ease of use means that even somebody without the Technical Proficiency or Simple Firearms Proficiency feat can still use them, and only at a -2 penalty to hit!

Gun: A larger device about six to eight inches long, four to five inches tall, and a full inch thick. These devices are designed to kill the maximum amount of people in the minimum amount of time, and are a favorite side-arm of those who are serious about their weaponry. They have the Autofire Option at no increased cost or Option Points used. They can be designed to replace this with either the Extended Range or Extra Shots Option, but the cost is unaltered.

Rifle: An even larger device about two to three feet long, four to five inches tall, but still only an inch or so thick. They are designed to allow for more damaging shots to be made safely, and at grater distances. Their larger size also makes it easier to pack them with more shots.

Cannon: A beefed-up rifle, and then some. These devices are two to three feet long, but can be up to a full foot *around!* They are capable of delivering devastating amounts of damage, and over longer distances than even a Rifle! Their increased size allows them to have the greatest number of shots found in a typically man-portable weapon.

Popcan: A small single-shot grenade launcher that is named after the soda can it physically resembles, and the distinctive "pop" of displaced air as it uses a pressure chamber to launch the grenade. A Popcan can be used once per point of Quality before it's pressure chamber must be recharged with more pressurized air, a task that requires a Firearms Kit of any Quality and a Repair check DC 10. A full round recharging the Popcan refills the kit's Quality in shot capacity. Must use grenades for it's Shot Type.

Thrower: Similar in design to a Popcan, this launcher is designed to deliver either small rockets or self-propelled grenades. It is large enough to have a somewhat limited load capacity, but the propellant for the ammunition is part of the ammunition, not the launcher. Must use grenades or rockets for it's Shot Type.

Launcher: A much more sophisticated, or at least larger, version of a Thrower. It can automatically feed several rounds from an internal magazine, and can fire all types of self-propelled devices. A truncated clip that has

the last shot replaced with a pressurized air canister can even be used to fire regular grenades like a Popcan (with 1/4th the Launcher's normal range), but the canister only contains enough pressurized air for ten shots maximum. Other than having the one shot missing, the number of rounds this modified clip can hold is unaltered. Must use grenades or rockets for it's Shot Type.

Gyroc Pistol: A bulky weapon the size of a regular Gun Template, this device discharges three pencil-size rockets (called Gyroscope-Stabilized Miniature Rockets, or "Gyrocs" for short) per attack. Over any appreciable distance this device is very unreliable and prone to miss, but at short distances it is a devastating weapon. These weapons use a system that places three miniature rockets into three firing chambers for simultaneous ejection. Each attack roll, or round in the case of autofire, causes three of these miniature rockets to be launched *simultaneously!* If the to-hit roll indicates a successful attack, the gyroc missiles do not deal as much additional damage based on the to-hit roll, unfortunately. The exhaust from each missile pushes the others off their course, resulting in a cumulative -2 to the bonus damage from a high to-hit roll (to a minimum of +0 bonus damage). This effect makes these weapons preferred for close range combat, but not for long-range combat.

A gyroc weapon can be switched to single-shot mode to conserve ammunition. In this mode it will only fire one gyroc missile on a to-hit roll, or per round in the case of Autofire. The rules for reduced bonus damage from a high to-hit roll are suspended for gyroc weapons used in this manner. In this mode, gyroc weapons can even be fired for up to *twenty* range increments, instead of the usual 10! Their self-propulsion and accuracy from the single missile combine to provide them with the increased range, even if striking your target at such a distance is almost impossible.

A single Exotic Weapon Proficiency allows for the use of both these weapons and the Gyroc Rifle. Uses Gyroc, skip Shot Type.

Gyroc Rifle: Identical in concept and use to the Gyroc Pistol, this weapon uses it's longer stock to load a front-fed clip of ammunition, allowing for much greater ammunition capacity.

A single Exotic Weapon Proficiency allows for the use of both these weapons and the Gyroc Pistol. Uses Gyroc, skip Shot Type.

Shot Type

What the weapon uses to deal damage. This determines the size of the die, and how much clip size or charge it takes to hold or fire a single shot, multiplied by the weapon's amount of dice. This is similar to an Option, but every firearm *must* take one, and *only* one, Shot Type!

TABLE 5-6: CUSTOM WEAPON SHOT TYPES

Shot Type	Name	Die Size	Price Mod	Ammo Clip	Range	Weight	Complexity
Chemical	Chem	1 dose	+50%	divide by 4	x0.2	x2	Average (HP/5) [DC = 20 + Quality]
Charged Plasma	Blaster	d6 Elect	+200%	divide by 2	x3	x1	High (HP/10) [DC = 25 + (Quality x2)]
Laser	Laser	d4 Fire	+100%	divide by 1	x5	x0.5	High (HP/10) [DC = 25 + (Quality x2)]
Needles	Sliver	d4 Pierce	+200%	divide by 1	x2	x1	Great (HP/7) [DC = 25 + Quality]
Slugs	Shot	d8 Bludg	+0%	divide by 3	x1	x1.5	Average (HP/5) [DC = 20 + Quality]
Gyroc	Gyroc	Gyroc	+400%	divide by 1	Gyroc	x1	High (HP/10) [DC = 25 + (Quality x2)]
Grenade	Grenade	Grenade	+0%	divide by 1	Grenade	x1	Basic (HP/4) [DC = 15 + Quality]
Rocket	Rocket	Rocket	+0%	divide by 2	Rocket	x1	Average (HP/5) [DC = 20 + Quality]

Name: The common term used for any weapon that uses that Shot Type.

Die Size: How big the damage dice for the weapon are.

Price Mod: This percentage is added into the Option percentages to find the total price of the weapon.

Ammo Clip: Divide the Clip Size of the Weapon Template by this value to se how many shots it can hold in a clip (or Charge Pack).

Range: Multiply the base Range of the Weapon Template by this value in order to find it's actual Range for weapons using this Shot Type.

Weight: Multiply the base Weight of the Weapon template by this value in order to find the actual Weight for weapons using this Shot Type.

Complexity: This rating is used to determine how many Hit Points the weapon has, as well as the DC to Craft and Repair it. All weapons are made from the equivalent of forged steel, so they have a base amount of Hit Points equal to 30 x Weight, and a Hardness of 10! Their base Hit Points are divided by the amount listed for their Complexity to find their actual Hit Points.

Chemical: This weapon hurls a pressurized stream of chemicals when fired. It hurls one "dose" of chemicals per damage die. A dose is the equivalent of 1/10th of a lb, one dose of poison, one nanite colony in suspension fluid, or 1/5th of a lb of acid. Damage from the weapon continues in a line to the limit of the weapon's range, with damage dealt to closer targets subtracted from the damage dealt to further targets. Incendiary explosives are often used as fuel for these types of weapons, called "flame throwers", and deal equal damage to all targets in the weapon's line of fire.

Charged Plasma: These weapons use a pair of high-energy laser beams to ionize an electrical path through the atmosphere to the target. A split-second later a discharge of large amounts of electrons is released from the weapon along that path. Charged Plasma weapons use up two points of Charge per shot fired, resulting in their reduced Ammo capacity. They have all the weaknesses of a laser, including reduced range, but also suffer from a dependency on the presence of an *at least* 1/10th density atmosphere in order to be used! When fired these weapons produce a sharp cracking sound from the air returning into the discharge path, and a tang of ozone from

ionized air particles left behind. Clips for these weapons are Charge Packs. They deal electrical damage.

Laser: A Laser firearm uses a discharge of coherent photons to transmit heat energy to the target in a very confined area, creating burn scars and charring. They are very energy efficient, but prolonged exposure is needed to transfer large amounts of energy. Due to this, they do not produce as much damage per shot as Charged Plasma weapons. Any atmospheric condition that impairs vision also impairs Lasers. Concealment gained from an atmospheric condition reduces Laser damage by half, and not being able to see the target due to such conditions means the laser is incapable of dealing *any* damage!

Needles: Needle weapons use small high-strength ferrous needles that are filled with a single point of Charge per die of damage each in an internal capacitor layer. Each needle is coated in a thin plastic coating that insulates it so that the energy it contains is not accidentally discharged. This plastic coating is ripped to confetti when it is fired, and ejected from the firearm's barrel. They retain a usable charge for up to one year, after which they do not have enough energy to be fired. To fire them, they are put into a set of staggered magnetic coils that are powered by the energy contained in the needle. When fired they produce a soft "thwip" sound, the byproduct of the air around them being displaced by the almost super-sonic projectile. Each round from a Needle weapon deals Piercing damage, and not much of it, but ignores half the target's Damage Reduction! Each Needle round costs 2 credits per die of damage they deal, making this some *very* expensive ammunition! The low damage coupled with the expense of the rounds leads this to be a very under-used weapon.

Slugs: These weapons use an explosive chemical reaction to hurl a small metal slug at great velocity to the target. The force of the explosion from the round is used to jacket the next round into the firing chamber. Slug-thrower revolvers (Gun Template without the Autofire Option and made with an internal magazine) are easy to design and build, treating their Craft DC as only 10 + Quality, this makes them particularly popular in low-tech and frontier systems. Revolvers are Basic Complexity technology.

The weight and cost for an individual slug-thrower round varies according to the amount of dice damage it deals. Costs and weight are for units of 15 slugs. It is 0.375 lbs and 0.15 credits, per die of damage, for a box of 15 slugs. Bullets are interchangeable from one weapon to another, so long as each weapon deals the same number of dice per shot (i.e. uses slugs of the same size).

Armor-piercing rounds cost +400% as much, but you ignore half the target's DR. Slug-thrower weapons can be designed to use atmospheric rounds, compact rounds, or any combination of these and armor-piercing rounds. A weapon designed for either atmospheric or compact rounds can fire *only* those types of rounds, and they can *only* be fired from a weapon so designed! Atmospheric rounds weigh and cost -50% as much, allowing +100% the normal amount to fit into a clip, but can only be fired in an atmosphere with plenty of free oxygen (such as would be breathable to a human). Compact rounds weigh half as much, but cost an additional +100%, and allow for an extra +100% of the normal amount of rounds to be fit into a clip. A compact atmospheric round therefore weights -75% of the normal amount, costs +50% total, and can fit +200% into a clip!

Gyroc: Gyroc weapons deal their damage based on the type of gyroc missile they use, totally uninfluenced by the firing weapon at all. The weapon is merely a launching mechanism, and the entire device is powered primarily by mechanical action and chemical reactions similar to a slug-thrower. Explosive gyrocs deal damage by detonating a small explosive payload when their flight is interrupted, and kinetic gyrocs are sharpened to deal piercing damage upon impact. Explosive gyrocs can be made to carry payloads of 1/10th a lb of acid instead of explosives. Cannot have the Extended Range or Increased Damage Options, but the *ammunition* can (see TABLE 5-7: GRENADES, GYROCS, AND ROCKETS).

Grenade: Devices that fire grenades fire one of two types: either the less explosive self-propelled models, or the more explosive but more troublesome standard models. Self-propelled grenades cannot be detonated by hand, at least not unless you don't want to keep the hand! They are actually two-stage explosives, the first one is used to both propel the second, and to prime it to detonate one it's motion stops or is jarred (such as by hitting something). Standard model grenades are the stereotypical "pull pin and throw" variety, but are loaded so that when they are hurled by means of compressed air, the pin stays with the launching device. These kind also detonate upon impact with an object. Self-propelled grenades are complex enough to warrant a basic technology write-up, and are included in the Template table below. Cannot have the Extended Range or Increased Damage Options, but the *ammunition* can (see TABLE 5-7: GRENADES, GYROCS, AND ROCKETS).

Rocket: Rockets are explosive warheads attached to a slim cylindrical propellant canister. They have range far greater than most weapons due mainly to carrying their own fuel supply. The warhead is equipped with a primitive half-globe radar system that operates at extremely low power. Whenever the rocket passes within anywhere from 5 to 20 ft of a solid object after being fired (as set by the user), it detonates the warhead. More advanced versions called Missiles have a targeting system that funnels their radar field into a tight forward-facing cone. Missiles will lock on to the center-most solid object within that cone when they are fired, and alter their course to come as close to it as possible before they detonate. This means that Missiles add their Quality to the firer's attack roll! Neither type of rocket can detonate until it is at least 20 ft away from it's launching mechanism, for safety reasons. If they are used to attack something within that range, or their warhead is disabled for some reason, they instead deal bludgeoning damage from the impact. Cannot have the Extended Range or Increased Damage Options, but the *ammunition* can (see TABLE 5-7: GRENADES, GYROCS, AND ROCKETS).

Anti-V: Explosive gyrocs (called "Ex Gyrocs") and rockets can have a special Option only available to them, called "Anti-V". Anti-V is shorthand for "Anti Vehicular", and refers to the fact that the weapon's warhead is designed to detonate a small shaped charge *before* the actual explosive goes off. the purpose of this shaped charge is to penetrate the target's armor, so that the rest of the warhead goes off *inside* the target! Only Chemical, Nitroglycerine, Plastic, and Enhanced Plastic warheads can be used with this Option. The warhead's damage is cut in half. The first half of it's damage is rolled normally, but is *only* applied to the target and anything within 5 ft of the target. If the target takes even one point of damage from this, then the second half goes off inside of it! Otherwise, the second half of the explosive detonates normally. If the second half detonates inside the target, the target takes *ten times* as much damage, and gets *no* Reflex save nor can it use Improved Evasion (1 Option, +200% Price).

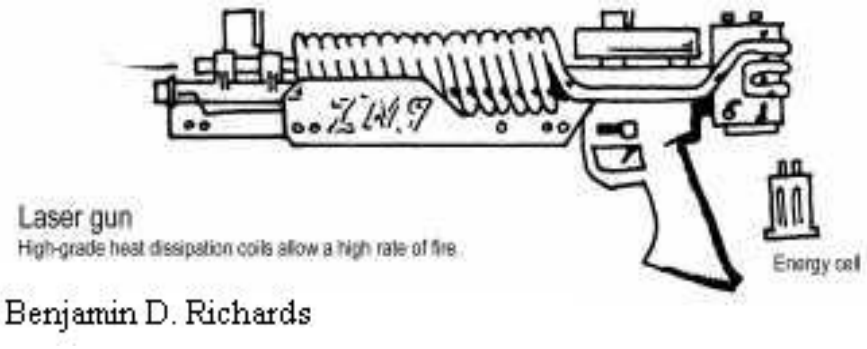
TABLE 5-7: GRENADES, GYROCS, AND ROCKETS

Type	Size	Explosive Weight	Non-Explosive Base Cost*	Range	Weight	Max Options	Damage
Rocket	Tiny	2	100 x Quality	100 ft x Quality	10 lbs	Quality	explosive or (Quality x 2)d6 Bludg.
Missile	Tiny	1	150 x Quality	100 ft x Quality	10 lbs	Quality	explosive or (Quality x 2)d6 Bludg.
EX Gyroc	Dim	1/10 lb	25 x Quality	25 ft x Quality	1/5 lbs	1/2 Quality	explosive or (Quality)d4 Bludg.
Kinetic Gyroc	Dim	None	10 x Quality	35 ft x Quality	1/5 lbs	1/2 Quality	(Quality)d8 Piercing
Self-Propelled Grenade	Dim	1/4 lb	15 x Quality	20 ft x Quality	1/2 lbs	Quality -5	explosive

* This is the price for the ammunition mechanism itself, not for the explosives within it. To find the device's full price you must add the cost of the mechanism to that of the explosive.

TABLE 5-8: CUSTOM WEAPON OPTIONS

Option	Points	Price mod
Autofire	2	+100%
Cyber Sight	4	+200%
Extended Range	2 per	+50% per
External Ammo	3	+75%
Extra Shots	2 per	+50% per
Full Auto	5	+200%
Increased Damage	5	+300%
Laser Sight	2	+50%
Safety Grip	5	+100%
Sniper Scope	1	+125 flat



Weapon Options

Autofire: The weapon has a slide on the side that can be moved from "1" to "4". The slide indicates the amount of rounds the weapon discharges on a single trigger pull, as per the Autofire rules (see the Combat chapter) (2 Options, +100% Price).

Cyber Sight: The weapon has a spring-loaded spool that contains a computer interface plug on a 5 ft cord, connected to a simple camera and control circuit. When plugged into a Neural Jack, it allows the user to totally control the weapon, and even see a faint ghostly image of the weapon's camera image on his field of vision. The overall effect is that he gets a +3 circumstance bonus to his attacks with the firearm, and can mentally alter the settings on the weapon as a free action (4 Options, +200% Price).

Extended Range: The weapon is designed to retain as much accuracy as possible over longer distances. Weapons with this Option add +1 to their Range Multiple for Shot Type, or +100% each time it is taken if added to a type of self-propelled ammunition (2 per Options, +50% per Price).

External Ammo: As a standard action a character can switch this weapon from using an internal magazine, to feeding fire from an external ammunition bin or belt. In the case of weapons that derive their ammunition from a Charge Pack, the weapon can be wired to an external Charge Pack to draw power from. Once it has been hooked up in this manner, the weapon's ammunition capacity is only limited by the ammunition it has available. This Option can be included in a weapon that has had it's own ammunition capacity removed, creating a weapon that can *only* use an external source of ammunition. Such weapons do not require Option Points be spent on this Option, but their Price is still modified (3 Options, +75% Price).

Extra Shots: The weapon has been designed to maximize the weapons internal capacity to hold more ammunition, whether it come from a Clip, Charge Pack, or Magazine. Each time this Option is taken increases the weapon Template's Clip Size by +25% (2 per Options, +50% per Price).

Full Auto: Similar to Autofire, this Option allows multiple shots to be fired when the trigger is pulled. Unlike Autofire, there is no upwards limit! This high rate of fire is counterbalanced by the weapon's abysmally low accuracy after the first shot, and it's difficulty to use. A Full Auto attack is a Full Attack action, but allows only one attack roll. The attacker uses up 20 shots in this attack, unless fewer where left in which case he uses up the reduced amount. The weapon must have at least 5 shots left to utilize the Full Auto Option, otherwise it acts as if it was fired using the Autofire Option for the amount of shots left. The attacker rolls 1d10 and adds to it the amount his attack roll exceeded the target's Defensive Class by, with the amount he MISSED by being *subtracted* from this roll. The result is the number of shots that actually hit the target… So even a near-miss can still result in a hit! No more shots can hit the target than where fired, and shots that miss scatter as per the

Scatter rules (in clumps of five shots each, for ease of use). The attacker rolls damage for each shot separately, but gets ***NO*** bonus damage for a high attack roll or Special Damage effect on a natural roll of 20. Normally Autofire weapons can be converted into Full Auto weapons by using the difference in Option points and Price modifiers between the two as the new Option Points and Price modifier, but lose the ability to use Autofire. Alternately, an Autofire weapon can have Full Auto for reduced cost, only 4 Option points and +125% Price modifier. This Option is often combined with the External Ammo or Extra Shots Options to help feed it's high rate of fire (5 Options, +200% Price).

Increased Damage: Due to better design and materials, the weapon wastes less energy when it discharges. This allows it to deal more damage with the same amount of power. Charged Plasma, Laser, Needle, and Slug weapons with this Option increase their damage dice size by one increment. Self-propelled ammunition with this Option do as well. The dice increments are, from least to greatest: d2, d3, d4, d6, d8, d10, d12, and d20 (5 Options, +300% Price).

Laser Sight: The weapon has a small laser-emitting diode that is aligned along it's barrel, and powered by a small thermo voltaic cell on the trigger. When the user places his finger on the trigger, his own body heat powers the diode. By tracking the laser's red dot, he gains a +2 circumstance bonus to his attacks with the weapon (2 Options, +50% Price).

Safety Grip: This weapon has a biometric safety feature that must be successfully activated in order to remove various mechanical locks within the weapon, otherwise it will not fire! This device functions by sensing the unique heat pattern, magnetic field, and surface DNA pattern of the person grasping the weapon's grip. It remains active as long as the person authorized to use it touches the grip, after at least grasping it. It takes a Repair check against a DC of 10 to set a new authorized user, which can only be done when it's current authorized user has activated it. Bypassing the biometric safety system requires a successful Repair DC 20 + Quality check, which fools the device into believing it has been activated by it's authorized user (5 Options, +100% Price).

Sniper Scope: The weapon has a mounted vision-magnification scope that makes targets appear to be ten times closer than they actually are. The magnification on the scope can be focused higher, up to x100 above normal visual range. Using a scope at it's base x10 has a set-up time of a Standard action. Every x10 multiple past this also requires a Move-equivalent action. The scope allows the user to attack with *half* the normal range penalties in it's x10 mode, and further reduces the range penalty by one point for every additional x10 vision multiple! You cannot use a Sniper Scope if you have moved at all, until you have spent the time to set it up again. If used to attack a target within a number of range increments closer than the scope's magnification setting/10, the user suffers a -10 circumstance penalty (1 Option, +125 credits *after* other Options).

Electromagnetic Pulse Weapons

An electromagnetic pulse weapon is a kind of grenade, based on Charge Pack technology. In essence it is a very simple device to create, but requires very advanced materials to get to work properly. They are comprised of a super conductive electrical flywheel (capacitor and coil) that oscillates an amount of Charge back and forth. The oscillation produces no noticeable electromagnetic filed due to the super conductive nature of the materials. To detonate it, a non-super conducting electromagnet is introduced to the circuit. The flywheel then expends all of it's energy in a microsecond on a pulsating magnetic field generated by the electromagnet. Any electronic device within the blast radius of the weapon, which doesn't *actually* explode, has a chance to be overloaded and scrambled by the pulse. The pulse is so strong that it can even affect the nervous system of living creatures!

EM weapons are rating in two categories: Weight and Quality. They can hold up to 10 points of Charge in their flywheel for every point of Quality per lb. When detonated, they produce a pulse that has a chance to disrupt any electronic circuit within the pulse's reach. This chance equals 1% per point of Charge it contained, minus 5% for every 5 ft from the EM weapon the device is. The chance is further lowered by twice the device's Quality, as higher-Quality devices have more EM shielding to protect their sensitive electronics.

Living beings with a nervous system can be *dazed* by being to close to an EM weapon when it discharges. They have to make Fortitude saves against a DC equal to 10 + 1/5th the percentage chance of disruption for their distance from the weapon. If they fail then they are *dazed* for one round for every point they failed the saving throw by.

When an EM weapon discharges there is a good chance that it will destroy itself, reducing itself to slag from waste heat. This chance equals the 100% - (10 x Quality), to a minimum of 1%.

TABLE 5-9: WEAPON GEAR LEVEL

Weapon Type	Level
Simple	1
Martial	2
Exotic	4
Melee	-1
Projectile	+0
Firearm	+1
Quality (melee & simple projectile)	+1/2
Armor Piercing/Anti-V	+1

Weapon Type	Level
Autofire	+2
Cyber Sight	+2
Explosive Ammo	+1/2 dice
Full Auto	+3
Gyroc	+2
Increased Damage	+1
Laser Sight	+1
Mono/Shock/Vibro	+1
Sniper Scope	+1

TABLE 5-10: STANDARD AND EXAMPLE MELEE WEAPONS

Simple Melee	Size	Range	Damage	Type	Weight	Price	Gear Level
Bar	Small	---	1d8	Bludgeoning	5	5 x Quality	1/2 Quality
Club	Tiny	10 ft	1d6	Bludgeoning	3	---	1/2 Quality
Combat Glove	Tiny/Dim	---	1d6/1d4	Bludgeoning	---	10 x Quality	1/2 Quality
Dagger	Diminutive	10 ft	1d4	Piercing	1	2 x Quality	1/2 Quality
Unarmed Strike	Tiny/ Dim	---	1d3/1d2$	Bludgeoning	---	---	0

Martial Melee	Size	Range	Damage	Type	Weight	Price	Gear Level
Greatsword	Medium	---	2d6	Slashing	15	30 x Quality	1 +1/2 Quality
Shock Baton &	Small	---	4d6	Electricity	5	250 x Quality	2 +1/2 Quality
Shock Glove &	Tiny/ Dim	---	2d6	Electricity	0.5	50 x Quality	2 +1/2 Quality
Shortsword	Tiny	---	1d6	Piercing	3	10 x Quality	1 +1/2 Quality
Longsword	Small	---	1d8	Slashing	5	20 x Quality	1 +1/2 Quality
Vibroknife &	Diminutive	---	1d8	Piercing	1	200 x Quality	2 +1/2 Quality

Exotic Melee	Size	Range	Damage	Type	Weight	Price	Gear Level
Mono-Whip &	Small	up to 30 ft	3d6	Slashing	2	2,000 x Quality	4 +1/2 Quality
Vibroblade &	Small	---	1d12	Slashing	5	500 x Quality	4 +1/2 Quality

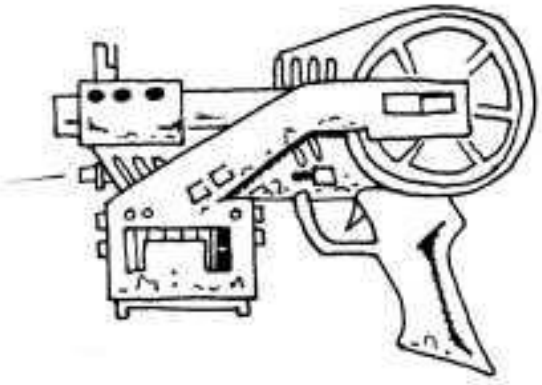
TABLE 5-11: STANDARD AND EXAMPLE PROJECTILE WEAPONS

Simple Projectile	Size	Range	Damage	Type	Weight	Price	Gear Level
Crossbow, light	Tiny	50 ft	1d10	Piercing	5	10	1 + 1/2 Quality
Crossbow, normal	Small	80 ft	1d12	Piercing	8	20	1 + 1/2 Quality
"Normal Quarrel	Diminutive	---	---	---	0.1	0.2	
Dart	Diminutive	20 ft	1d4	Piercing	0.5	1	1 + 1/2 Quality
Grenade, incendiary	Diminutive	10 ft	4d6 @	Blast/Fire	0.5	15	2
Grenade, offensive	Diminutive	10 ft	10d6 @	Blast	0.5	35	5
Grenade, defensive	Diminutive	10 ft	5d6 @	Blast	0.5	17	2
Grenade, smoke &	Diminutive	10 ft	1d6 @	Blast	0.5	25	1

Martial Projectile	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Bow, Long	Med	80 ft	arrow	1d6	Piercing	8	100	2 + 1/2 Quality	
Bow, Short	Small	50 ft	arrow	1d8	Piercing	5	35	2 + 1/2 Quality	
" Arrow	Dim	---	---	---	---	0.1	0.1	0	
Grenade Launcher	Med	grenade	12 (mag)	grenade	grenade	20	40	1	(free Extra shots)
" Grenade, incendiary	Dim	20 ft	---	4d6 @	Blast/Fire	0.5	20	+2	
" Grenade, offensive	Dim	20 ft	---	10d6	Blast	0.5	40	+5	
" Grenade, defensive	Dim	20 ft	---	5d6	Blast	0.5	22	+2	
" Grenade, smoke &	Dim	20 ft	---	1d6 @	Blast	0.5	30	+1	
Rocket Launcher	Med	rocket	6 (mag)	rocket	rocket	20	40	1	(free Extra shots)
" Anti-air rocket	Tiny	200 ft	---	25d6	Blast	10	200	+12	Enhanced Plastic (Extended Range)
" Ground rocket	Tiny	100 ft	---	20d6	Blast	10	130	+10	Plastic
" Anti-V rocket &	Tiny	100 ft	---	12d6/12d6	Blast	10	350	+13	Enhanced Plastic (Anti-V)
" Urban rocket	Tiny	100 ft	---	10d6	Blast	10	115	+5	Nitroglycerine
" Tactical rocket &	Tiny	200 ft	---	80d6 @	Nuclear	10	2,800	+40	Fission (Extended Range)

Exotic Projectile	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Gyroc Gun &	Tiny	gyroc	15 (clip)	gyroc	gyroc	6	125	7	
Gyroc Rifle &	Small	gyroc	30 (clip)	gyroc	gyroc	9	500	7	
" Ex gyroc	Dim	---	---	2d6	Blast	0.2	25	+1	Plastic
" Ex Incendiary gyroc &	Dim	---	---	1d6	Blast/Fire	0.2	25	+0	Incendiary
" Kinetic gyroc	Dim	---	---	1d8	Piercing	0.2	10	+0	

Gyroc pistol
centrifugal firing system
caution: not a hair care product
vibrational damping and isolation systems
survival saw and bottleopener



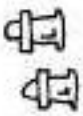


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TABLE 5-12: STANDARD AND EXAMPLE FIREARM WEAPONS

Simple Firearms	Size	Range	Ammo	Damage	Type	Weight	Price	GL
Blaster Pistol	Diminutive	60 ft	5	2d6	Electricity	2	30	2
Laser Pistol	Diminutive	100 ft	10	2d4	Fire	1	20	2
Shot Pistol	Diminutive	20 ft	3 (clip)	2d8	Bludgeoning	3	10	2
" Pistol Bullet	Fine	---	---	---	---	.01	1 (for 15)	2

Martial Firearms	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Blaster Gun	Tiny	60 ft	7	2d6	Electricity	4	75	5	(Autofire)
Laser Gun	Tiny	100 ft	15	2d4	Fire	2	50	5	(Autofire)
Slug Gun	Tiny	20 ft	5	2d8	Bludgeoning	6	25	5	(Autofire)
" Pistol Bullet	Fine	---	---	---	---	.02	2 (for 15)		
Blaster Rifle	Small	150 ft	12	4d6	Electricity	8	350	3	(Extra Shots)
Laser Rifle	Small	300 ft	20	4d4	Fire	4	200	3	(Extended Range)
Slug Rifle	Small	50 ft	8	4d8	Bludgeoning	12	150	3	(Extra Shots)
" Pistol Bullet	Fine	---	---	---	---	.05	5 (for 15)		

Exotic Firearms	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Blaster Crystal &	Fine	10 ft	1	1d6	Electricity	na	150	4	Cannot be reloaded
Laser Crystal &	Fine	20 ft	2	1d4	Fire	na	100	4	Cannot be reloaded
Laser Cannon	Medium	375 ft	100	8d4	Fire	8	2,500	7	(Autofire, Extra Shots x 4)

$ Does Vitality damage, not Hit Point damage.
@ Explosive weapon. Reduce damage by one die for every 5 ft from square of impact.
& Special rules, see weapon entry.

Charge Packs: 1 credit per damage die times ammo, for Quality 1. Extra Quality hold proportionally more shots, for proportionally more cost, but a weapon cannot take a charge pack whose Quality is higher than it's own. If it is attempted, then the weapon automatically malfunctions.

Spare Clips: Cost the weapon's Weight in credits, must be purchased by weapon. Each slug-thrower or needler weapon comes with one free clip.

Quality: Unless mentioned otherwise, all the weapons listed above are Quality 1.

Rules

Ammo: The number of shots the weapon holds. Clips and power cells can be switched out as a standard action, or a free action if the character has the Quick Draw feat. Magazines can be refilled as a full action, which refills a number of shots equal to the character's Dexterity modifier (if positive) plus one.

Autofire Mode: A weapon capable of autofire has a selector switch next to the trigger. This switch can be moved from it's lowest setting of "1" to the highest setting of "4" as a move-equivalent action. When fired the weapon fires the number of rounds in a burst equal to the setting of the switch. Each round in a burst after the first is treated as a separate attack roll on the target, using the prior attack roll's result -5.

Damage Type (Blast): This is a wave of violently expanding gas and heat. This damage is mostly kinetic Bludgeoning damage. Personal armor is flexible to allow for the person wearing it to move properly. This means that such armor counts at *half* value against this type of damage. Powered armor, robot armor, and vehicle armor does not suffer from this limitation. Modern explosives are oxygen-enriched, so they can detonate even in space. Explosive damage can be reduced by half if the target makes a successful Reflex save, with a DC equal to 10 + damage dice.

Damage Type (Nuclear): A fission of heavy metals into smaller atoms, which creates an expanding wave of intense radiation and heat, as well as a concussive wave. Anything caught in this type of blast is affected the same as for Blast damage (see above), but also with the following additional effects. They are irradiated, see the radiation rules for more information. Electronic devices (such as robots) within the blast area have a 5% chance, per die of damage taken, to be disrupted and malfunction due to the intense electromagnetic emissions. Damage from a nuclear attack is rolled twice, once for kinetic Bludgeoning damage (damage reduction applies), and once for emitted energy damage (energy resistance applies). All armor is treated as half-value against a nuclear attack, except for bonuses from Radiation Absorbent Materials (R.A.M.).

Explosive Rebounding: Whenever a blast or nuclear-type explosive encounters a stable structure such as a wall, that it cannot penetrate, the blast rebounds. The explosion rebounds in a direction determined by the angle of the structure, just s if it had originated at the structure as a second explosion. The amount of damage this deals to all creatures caught in the rebounded area is equal to the *total* dice for the initial explosion and the rebounds! If in an enclosed area, divide the explosion's total diameter [(dice x5) +5 ft] by the longest diameter of the area, provided the explosion cannot penetrate the structure's weakest wall (or roof, or floor). Then multiply the amount of dice things inside the area take by that number. Eww.

Melee Weapon Quality: Melee weapons can have higher Quality ratings, just like normal weapons. For a melee weapon add half it's Quality to it's damage rolls, rounding down. Also subtract half it's Quality (x 10%) from it's weight, rounding down to a minimum of -0% at Quality 1.

Example: a Quality 5 Bar does an extra +2 damage, and weights 20% less.

Simple Projectile Weapon Quality: Simple ranged weapons can have higher Quality ratings, just like normal

weapons. For a simple projectile add half it's Quality to it's damage rolls, rounding down. Also subtract half it's Quality (x10%) from it's weight, rounding down to a minimum of -0% at Quality 1. Every full two points of Quality after Quality 1 also increases it's Range Increment by 25%!

Example: a Quality 5 Dagger does an extra +2 damage, weights 20% less, and has a Range Increment of 15 ft!

Descriptions

Bar *(Simple Complexity, 5 lbs, 37.5x Quality Hit Points, Hardness 8)***:** A simple metal bar about a foot and a half to two feet long, with a grip of leather or plastic at one end.

Bow, Long *(Simple Complexity, 8 lbs, 40 x Quality Hit Points, Hardness 5)***:** These weapons contain kinetic energy by flexing their long bodies, then use a string run from one end to the other to impart the energy to a ling thin piece of sharp wood called an arrow. Even though they are Martial weapons, they gain the benefits of high Quality that Simple Projectile weapons gain. A character's Strength modifier applies to this weapon if it is negative, and the maximum positive Strength modifier that applies is equal to the weapon's Quality.

Bow, Short *(Simple Complexity, 5 lbs, 25 x Quality Hit Points, Hardness 5):* Identical to a Long Bow, but smaller and capable of imparting less kinetic energy to the arrow.

Arrow *(Simple Complexity, 0.1 lbs, 1 Hit Point, Hardness 5):* Each arrow is a two and a half foot long piece of thin wood with fletching at one end and a sharp metal point at the other. They are designed to be fired from a Bow, but can be used in melee. If used as a melee weapon they deal 1d4 Piercing damage, and break if maximum damage is rolled. They are not reusable if fired.

Club *(Primitive Complexity, 3 lbs, 30 x Quality Hit Points, Hardness 5)***:** A wooden pole or cudgel a little bigger in dimension than a Bar, but of similar design and lighter overall weight.

Combat Glove *(Simple Complexity, 0.5 lbs, 7.5 x Quality Hit Points, Hardness 10)***:** A glove with metal plates and a shock-absorbent outer padding, designed to turn a hand into a lethal instrument.

Crossbow, Light *(Basic Complexity, 5 lbs, 18.5 x Quality Hit Points, Hardness 8)***:** A basic top-loaded launch mechanism for a wooden or plastic pole with fletching and a sharp metal tip. It is about two feet long in the stock, with a flexible metal or reinforced wooden bow that stretches across the front, about two feet wide. Firing it is easy, but after it is fired it takes a Move Equivalent action by somebody with a Strength of at least 8 to reload it. Otherwise reloading it takes a full-round action!

Crossbow, Normal *(Basic Complexity, 8 lbs, 30 x Quality Hit Points, Hardness 8)***:** Like a Light Crossbow, only a little bigger and heavier. It takes a minimum Strength of 10 to reload it as a Move Equivalent action.

Quarrel *(Simple Complexity, 0.1 lbs, 1 Hit Point, Hardness 8):* An short arrow made from metal or hard wood, that is designed to be used n a Crossbow. It can only be used in Crossbows.

Dagger *(Simple Complexity, 1 lb, 15 x Quality Hit Points, Hardness 10)***:** A thin and balanced piece of sharpened metal with a hand-grip forming a little under half it's length. It can be thrown or used in melee.

Dart *(Simple Complexity, 0.5 lbs, 7.5 x Quality Hit Points, Hardness 10)***:** A two-inch long metal needle with a two-inch long handle, the middle of which has backward-sweeping rigid fletching. It is thrown by grasping the 1/2-inch portion of the handle at the back, and swinging.

Unarmed Strike: The standard unarmed attack by somebody without Improved Unarmed Combat or natural weapons deals 1d2 points of Vitality damage, with the dice going up one size for every Size Category they are greater than Small.

Greatsword *(Simple Complexity, 15 lbs, 225 x Quality Hit Points, Hardness 10)***:** A six to seven foot long double-sided blade made from sharpened steel, with a one and a half to two foot long handle. very hard for most to wield, and used almost nowhere except on very primitive worlds.

Grenades *(Basic Complexity, 0.5 lbs, 2 Hit Points, Hardness 8)***:** These minor explosive devices are specialty-purpose bombs designed to be used as cheap area weapons in combat. They each come equipped with a Static Timer and a half-pound of explosives. the timer is set to detonate at the end of the round the Grenade is armed on. Arming a grenade is a move-equivalent action, or a free action if the person using the grenade has the Quick Draw feat. It also takes a Demolitions check with a DC of 10, otherwise the user throws the pin and is left holding the grenade!

Grenade, Defensive: These devices have a half-pound of Nitroglycerine explosive.

Grenade, Incendiary: These devices have a half-pound of regular Incendiary explosive.

Grenade, Offensive: These devices have a half-pound of Plastic explosive.

Grenade, Smoke: This grenade fills a 20-ft radius spread with hot magnetic smoke that totally occludes all forms of sensors and perception within it's area. This effects lasts for 2d6 rounds, minus an appropriate amount for wind conditions. A person with the Mental Wave ability can reduce this time by his Intelligence modifier with a successful skill check.

Longsword *(Simple Complexity, 5 lbs, 75 x Quality Hit Points, Hardness 10)***:** A three to four foot long length of sharpened steel with a half-foot long handle. Somewhat easier to wield than a Greatsword, but still mainly popular only on primitive worlds.

Mono-Whip *(Great Complexity, 2 lbs, 5.5 x Quality Hit Points, Hardness 20)***:** This is a single molecule-wide wire up to 20 ft long, with a small weight at one end and a spindle-containing handle on the other. When it is swung with any force the line plays out to cut through the target. Armor counts at one third it's normal value against this weapon, as it slices right through almost any suit, including for purposes of calculating armor damage. If the character misses on an attack roll, he has the chance for the whip to swing back and strike him before it is reeled in. To avoid this he needs to make a successful Reflex DC 15 save.

Shock Baton *(Average Complexity, 5 lbs, 15 x Quality Hit Points, Hardness 8)*: A high-tech bar with a triggering mechanism on the end that bears a rubberized grip. When activated, it has the statistics listed above, otherwise it acts like a bar. It is powered off of a 200 charge pack, which has enough juice to provide 50 successful hits worth of discharges, multiplied by it's Quality. It is a free action to switch a shock baton on or off with a flick of the thumb.

Shock Glove *(Average Complexity, 0.5 lbs, 1.5 x Quality Hit Points, Hardness 8)***:** Similar to a shock baton, this device is powered off of a 40 charge pack which has enough juice for only 20 successful hits worth of discharges, multiplied by it's Quality. When out of charges, or not turned on, it acts like a combat glove.

Shortsword *(Simple Complexity, 3 lbs, 45 x Quality Hit Points, Hardness 10)***:** A one to two foot long blade with a six-inch long handle. Fairly easy to wield, but not really used except on primitive worlds.

Vibroblade *(Average Complexity, 5 lbs, 40 x Quality Hit Points, Hardness 15)***:** These nasty weapons are longswords whose blades have been made from jagged piezoelectric materials. When an electrical current is applied to them they vibrate at an astonishing frequency, emitting a low-pitched hum the entire time. When un-powered they have the same statistics as a dagger or longsword. A vibroblade is powered by a 100 charge pack, which provides enough power for up to five minutes (50 combat rounds) of continuous operation, multiplied by it's Quality.

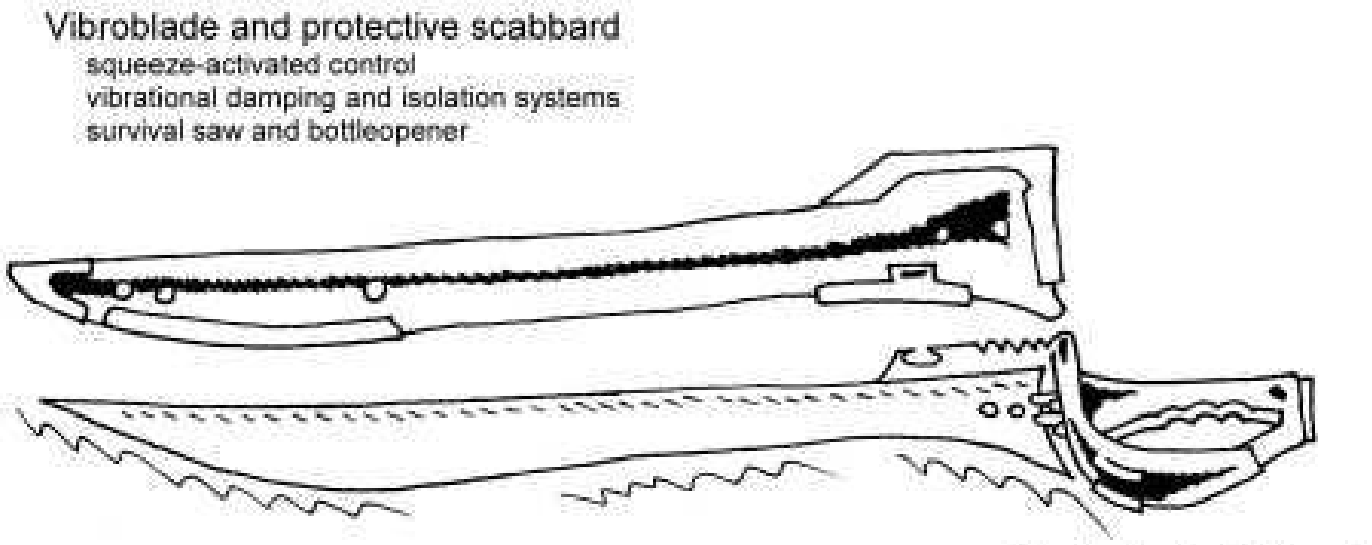
Vibroknife *(Average Complexity, 1 lbs, 8 x Quality Hit Points, Hardness 15)***:** Identical to a Vibroblade, only made from a Dagger instead of a Longsword. It has a smaller Charge pack, only 50 points times Quality, but requires only one point per round.

Charge Pack Detonation

Any weapon with a Charge Pack can be rigged to explode. This is done by feeding the energy remaining in the Charge Pack into the reaction coils, causing them to overheat and fail not only drastically, but *spectacularly!* The super-heated elements become gaseous, and explode turning the rest of the weapon into shrapnel. Only functional and semi-functional weapons can do this, even those that have jammed.

This is a remarkably inefficient means of generating explosive force. The weapon can only deal 1d6 points of explosive damage for every FULL 10 points of Charge remaining in the pack, and no more than twice it's weight in dice total.

Weapons are designed with many safety features in mind, to prevent this from *accidentally* occurring. These safety features make it a little difficult to hotwire an energy weapon for explosive overload. In order to make it detonate, the user must spend a Standard action to make a Repair check against a DC of 10 + weapon Quality. If it is made successfully, then the weapon detonates on the beginning of his action next round. This typically only gives him one Move action to get away!



Benjamin D. Richards

EXPLOSIVES

Explosive devices are rated in a manner similar to weapons, only they automatically hit all things within their range. Explosives come in two damage types, "Blast" and "Nuclear", the effects of each of which is detailed above.

When designing an explosive *device*, rather than a weapon's warhead, you do so by use of the Demolitions skill. It takes a full action (both a movement and a standard) to set up an explosive device. In order to do so successfully, the character setting it up must make a Demolitions check with a DC determined by the device's Trigger. When *building* the device, a Demolitions check is also required. The DC of this check is determined by the kind of explosive used, and further modified by the trigger(s) that can set it off when it is being set up. If this check is successful, then the builder add +1 to the device's damage for every point the builder exceeded the DC by, due to variances in design and quality of construction. This bonus damage cannot be more than the weapon's normal maximum damage from it's explosive power.

Deactivating a trigger requires a Disable Device check, with a DC equal to the device's construction DC. The person deactivating it gets a +1 synergy bonus to this check for every five ranks they have in Demolitions. Even if they do not have Disable Device, they can still make this check by default so long as they have at least five ranks in Demolitions. A failed check does nothing unless it is failed by at least 5 pts, or by rolling a natural "1". In such a case, the device explodes immediately.

Below is a list of tables for explosive triggers and materials, followed by a description of each.

TABLE 5-13: EXPLOSIVE TRIGGERS

Trigger	Set-Up DC	Device Modifier	Price
Dead-Man	5	-2 check	5
Remote	5	-4 check	20
Static Timer	10	-6 check	10
Trip	10	-0 check	1
Variable Timer	15	-6 check	15

TABLE 5-14: EXPLOSIVE MATERIALS

Explosive	Const. DC	Damage/lb	Type	Price/lb
Antimatter	35	150d6*	Nuclear	10,000
Chemical	10	3d6	Blast	5
Fission	20	80d6*	Nuclear	2,500
Fusion	25	100d6*	Nuclear	5,000
Incendiary	10	8d6@	Blast	10
Neutron	30	80d6*	Nuclear	5,000
Nitroglycerine	15	10d6	Blast	15
Plastic	15	20d6	Blast	30
Plastic, enhanced	15	25d6	Blast	50

* Most of this weight is the radiation shielding around the explosive itself. Each additional multiple of this damage amount only increases the device's weight by 1/4th pound.

@ Roll damage twice. The first roll is for fire damage, the second is for blast damage.

Triggers

Dead-Man: This switch, typically a button, causes the devices to explode only *when* it is released. They can be designed with a secondary switch that resets them should the user decide that he does not want to use the device after all. In either case, once the trigger is hit the device detonates as soon as there is no longer pressure being applied to the trigger. This typically occurs when the user ahs been killed after activating the trigger, hence the name "Dead-Man".

Remote: This trigger, once activated, allows the device to be detonated at any time with a coded radio or micro wave transmission. The transmission is typically sent by a radio communicator, or a similar device.

Static Timer: This device is set to detonate the explosive once a set amount of time has passed. The time can be measured in rounds, minutes, hours, or even up to *decades*. If set to detonate in combat, it's counter counts down at the end of every round, including the one it is activated on! These timers are Crafted with their time limits pre-set, and cannot be altered.

Trip: This device is some sort of simple pressure or disturbance indicator, like a pressure plate or trip wire. When the sensor is tripped, the explosive is immediately detonated. A Spot or Search check is required to notice the sensor before it is disturbed, the DC of which equals the result of the user's Demolitions skill check result to set it, +10 for a Spot check.

Variable Timer: These devices are identical to a Static Timer, except that their time limits can be reset at any time before they are activated with a Move-equivalent action.

Explosive Materials

Antimatter: This device is a magnetic bubble that holds a minute amount of anti-matter inside a vacuum. It is detonated by releasing the magnetic field, which causes the anti-matter to come into contact with regular matter. The resulting explosion is created as the entire mass of each is instantly converted to energy, with the container being force-fused into radioactive isotopes.

In the days of the Gaean empire, versions of this device where created that used self-powered gravity fields and other esoteric devices to pull in atmospheric gasses and convert them to anti-matter. The resulting anti-matter was then bombarded with other atmospheric matter to fuel the reaction, creating an explosion as a byproduct. Properly maintained, they could create almost unlimited energy off of interstellar gasses. These kinds of high-yield "annie-pods" were the devices used to turn the Gaean system and the rest of the core systems into expanded supernova clouds. After all, if interstellar gasses can create such force, what would dropping a few DOZEN into a *star* do? Fortunately, or unfortunately depending on who you ask, nobody can create such devices anymore. The technology that was required to make them was lost when Gaea was destroyed. The only remaining ones are remnants of that era, and are some of the most valuable artifacts in the universe.

Chemical: A simple explosive compound that creates kinetic force by means of a rapidly expanding gas. This type of explosive is very stable, and not terribly dangerous, making it ideal for low-yield devices such as personal close-combat grenades and bullets. In a science-fiction setting, there is enough oxygen in the chemical to allow it to detonate underwater or even in the vacuum of space!

Fission: A classic nuclear device. This device explodes by using a high-energy first stage explosive to compress a radioactive heavy metal, causing it to destabilize and it's atoms to break down. These atoms then fly apart, releasing large amounts of heat, radiation, radioactive isotopes, and a huge cloud of exploding gasses. The actual blast itself is preceded by a wave of super-heated atmosphere that deals most of weapon's kinetic damage.

Fusion: Similar to a fission explosive, this device compresses non-radioactive substances into atoms slightly smaller than their components' mass. The rest of the mass becomes hydrogen which builds up quickly inside the reaction chamber. The increase in pressure causes a cascade effect, whereby an exponential amount of non-fused matter is fused under the pressure of the hydrogen as well as the magnetic field of the no metallic atoms. Eventually (in a relative term, the whole process takes only a split-instant), the pressure becomes so great that the reaction mass cannot maintain it's atomic cohesion, and a fission reaction occurs. This last burst of energy and pressure fragments the metallic atoms into radioactive isotopes, as well as igniting all the compressed hydrogen. The resulting blast wave of ionized hydrogen and broad-spectrum radiation will shatter or incinerate almost anything.

Incendiary: A explosive chemical compound designed to detonate as excited hydrogen and other "hot" gasses. In addition to concussive force, they also produce fire damage as well. In a science-fiction setting, there is enough oxygen in the chemical to allow it to detonate underwater or even in the vacuum of space!

For double cost the material can be "sticky". Sticky incendiary explosives continue to burn each round, but for slightly less damage. At the end of each round the chemicals deal their fire damage again, but with a -2 modifier per round. Once something rolls no damage for a round, then all the incendiary material on it is considered to have burnt out.

Neutron: An odd device that produces very little explosive force, but ALLOT of heavy neutrons. The damage listed above is almost ENTIRELY radiation, actual blast damage is only 1/10th that amount. Unlike other radiation, this kind is stable and does not cause a creature, object, or area to emit radiation in turn.

Nitroglycerine: A violently explosive liquid that is typically stabilized by means of mixing it with a normally non-explosive and chemically neutral substance. It is more dangerous than chemical explosives, but also more powerful. the statistics given above are for it's more stable forms, such as dynamite. . In a science-fiction setting, there is enough oxygen in the chemical to allow it to detonate underwater or even in the vacuum of space!

For the same cost you can have *pure* nitroglycerine, which has 50% more explosive force! Unfortunately *any* impact will detonate it, and even a relatively gentle bump is 25% likely to set it off.

Plastic: A complex chemical paste explosive that is both as powerful as raw nitroglycerine, and even *more* stable than basic chemical explosives! This substance can only be detonated by another explosive substance, or by an electrical charge. It can be sculpted and molded just like clay, but will not diffuse in other chemicals except for acids. In a science-fiction setting, there is enough oxygen in the chemical to allow it to detonate underwater or even in the vacuum of space!

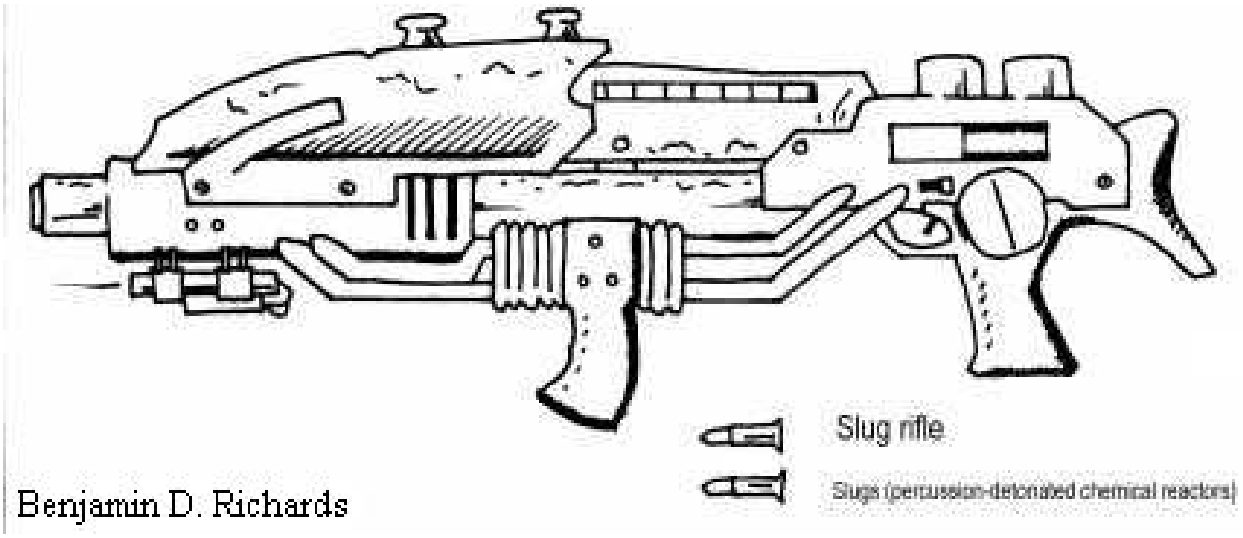
Plastic, enhanced: An even more powerful form of plastic explosive. Unlike regular plastic explosive, this material can be hardened to a rock-like consistency by doing Fire damage to it! Every 4 points of Fire damage hardens 1 lb of this material into it's current form. In a science-fiction setting, there is enough oxygen in the chemical to allow it to detonate underwater or even in the vacuum of space!

Big Targets

Targets that occupy more than one 5-ft square take more damage from explosions, due to having a larger area to receive the damage. They take a total damage equal to the damage dice rolled by each square they occupy, added together *before* making a Reflex save and applying Damage Reduction.

Gear Level

The gear level of an explosive device is equal to 1/2 the amount of dice it deals in damage. This means that for most explosive devices, the gear level is *so high* that defeating a foe with the device will net the user almost no experience points!



BASIC GEAR

TABLE 5-15: BASIC GEAR

Clothing	Price	Weight
Hazardous Environment	Q x Q x250	10
Fine	1,000	5
High Class	250	4
Nice	100	4
Mediocre	25	3
Street Rags	free	2

Drugs & Medicine	Price	Weight
Adrenal Boost	Quality x 20	neg.
Antibiotic	Quality x 5	neg.
Dermal Patch	5	neg.
Disinfectant	Quality x 2	neg.
Injector	Quality x 25	1/10
Intoxicant	Quality x 10	neg.
Rad-X	Quality x 100	neg.
Radblock	Quality x 25	neg.
Sedative	Quality x 5	neg.
Stimulant	Quality x 10	neg.

Electronics	Price	Weight
Charge Pack	1 per Point	Points/100
Computer	not including OS	
"Datasheet	Q x Q x250	neg
"Pocket	Q x Q x100	1/2 lb
"Case	Q x Q x50	10 lb
"Major System	Q x Q x5000	500 lb
Environmental Scanner	Q x Q x50	1/2 lb
Radio Communicator	Q x Q x25	1/2 lb

Magi	Price	Weight	Gear Level
Force Glove	Quality x 250	1/2 lb	Quality
Intuition Augmenter	Quality x 2,000	1 lb	---

Nanotech	Price	Weight	Gear Level
Nano Factory	Quality x 1000	12 lb	---
"Dedicated	Quality x 100	2 lb	---
Nano Ghost (Magi)	6,300	1/10 lb*	---
Nano Interface (Magi)	1,725	1/10 lb*	---
Nano Meds (by race)	3,000	1/10 lb*	3
Nano Ripper Pack	2,800	1 lb	2
Nano Scrambler Pack	563	1 lb	
Nano Shield (Magi)	Quality x 100	1 lb	
" Refill (Magi)	3,500	1/10 lb*	3
Nano Spectre (Magi)	9,888	1/10 lb*	9
Nano Torch	613	1/10 lb*	

* Weight of the container. The nano-bots it contains are virtually weightless.

Program	Price	Points
Astrogation	Rating x 100	Rating
Codebreaking	Rating x 500	Rating x 2
Computer system OS	Rating x 50	NA
Database	Ranks x 100	Ranks
Design	Rating x 300	Rating
Martial Weapons	5000	5
Programmer's Suite	Rating x 500	Rating x 4
Robotic computer OS	Rating x 100	NA
Robotic Skill	Ranks x 500	Ranks x 2
Schematic	Price/1,000	Price/500
Security	Rating x 400	Rating x 2
Simple Weapons	1000	2
Targeting	Rating x 250	Rating
Translation	250	1

Survival	Price	Weight
Air Mask	Quality x 10	1 lb
Air Tank	Quality x 10	2 lbs
Atmosphere Recycler	Quality x 20	1 lb
Respirator	Quality x 5	1/2 lb
Respirator, Reducing	Quality x 5	1/2 lb
Portable Light	Quality x 2	1/2 lb
Pressure Helmet	Quality x 20	3 lbs
Pressure Suit	Quality x 100	25 lbs
Space Suit	Quality x 500	50 lbs

Tools	Price	Weight
Armor Toolkit	Rating x 50	6 lbs
Computer Toolkit	Rating x 300	2 lbs
Electronics Toolkit	Rating x 100	3 lbs
Demolitions Toolkit	Rating x 50	2 lbs
Medical Kit	Rating x 200	6 lbs
Med-Tech Toolkit	Rating x 100	5 lbs
Robotics Toolkit	Rating x 200	5 lbs
Vehicle Toolkit	Rating x 50	10 lbs
Weaponry Toolkit	Rating x 100	4 lbs
Workshop	x 50	x 25

Clothing

Hazardous Environment *(Quality 8, Average Complexity, 10 lbs, Quality x1 Hit Point, Hardness 5):* This is a full-body over suit, complete with helmet. It is designed to separate the wearer from his environment, protecting him from hazards such as germs, poisons, and nanites. The suit uses an air filter that is nanite-driven, scrubbing all incoming air clean of anything except nitrogen and oxygen. The filter runs off a 10 charge pack, and consumes one charge per hour of operation. It reduces the Fortitude save DC of any airborne infectious agent by 10 + (Quality x5), and the Quality of any airborne nanite by it's Quality. The suit is made from multiple layers of hard and supple plastic designed to prevent tears and dissipate energy, preventing the suit from being penetrated. This has the effect of providing extra damage reduction and energy resistance equal to the suit's Quality, but every time it is penetrated the suit's Quality degrades by one. The gloves make handling objects a little difficult, imposing a -2 penalty to all manual-dexterity based skill made while the suit is worn. The helmet obscures vision greatly, imposing a -10 penalty to all Listen, Search, and Spot checks while it is worn. The suit overall is very bulky, and penalizes the wearer's Dexterity-based skills by -5.

Fine *(Quality 8, Average Complexity, 5 lbs, 8 Hit Point, Hardness 2):* Crystallized carbon decoration colored with rare mineral impurities, high-grade plastic weave with imbedded cleaning nanites, and snazzy custom tailoring all combine into a suit of clothes that only the rich can really afford. This suit of clothes also has a very simplistic environmental scanner, Quality 1, non-descriptively built into it. Only the rich can afford this type of clothing, and only the powerful are rich. This means you gain a +2 circumstance bonus to Diplomacy checks while you wear this kind of clothing.

High Class *(Quality 6, Average Complexity, 4 lbs, 5 Hit Point, Hardness 2):* One step down from fine clothing, this is still made from very high-quality materials, but is of an off-the-shelf design. It also has no built-in nanites and no built-in environmental scanner. It is worn most often by those who have managed to accrue a fair amount of cash, or are in a profession that pays well such as surgeons and ships' Psionicists.

Nice *(Quality 4, Basic Complexity, 4 lbs, 4 Hit Point, Hardness 2):* No real decoration, and of a one-size-fits-all design, this clothing is still made from high-quality plastics and sturdily crafted. It is the clothing worn by well-heeled tradesmen.

Mediocre *(Quality 3, Basic Complexity, 3 lbs, 2 Hit Point, Hardness 0):* This is made from exuded organic molecules, often those grown by genetically engineered clothing-production plants. Because it is made from organic molecules, it degrades fairly easily and often needs to be replaced about once a year. A typical suit of this type of clothing comes in four parts: pants, shirt, jacket, and shoes. Mostly the poor, but not yet destitute, wear this cheap clothing.

Street Rags *(Quality 1, Simple Complexity, 2 lbs, 1 Hit Point, Hardness 0):* This is the cast-off rags left over when a suit of mediocre clothing degrades to the point of not being worth wearing, stitched together into an ugly looking but serviceable set of clothes. They are free...and worth every credit it costs. The overall raged and disreputable appearance the clothes give imposes a -2 circumstance penalty to Diplomacy checks.

Drugs & Medicine

All drugs weigh a negligible amount. They typically must be injected to have any effect, and require one round for the effects to appear. Ingested versions cost twice as much. Inhalant versions cost four times as much. Ingested and Inhalant versions work normally if injected. Inhalant versions work normally if ingested.

A person can resist the effects of a drug with a successful Fortitude save. The DC for this save is 10 + twice the drug's Quality. A failed save means he suffers the drug's normal effects.

Many people use some drugs recreationally, becoming addicted to them. Every time a person uses these drug voluntarily, they must make a Fortitude DC 15 to avoid addiction. If he takes the drug involuntarily, then the save DC is 5. An addicted user can go up to one day per point of Quality of his last dose of their drug without another dose. Every day past this limit, they develop a -1 cumulative penalty to all their saving throws and skill checks, to a maximum of -10. This is overcome like an addictive poison.

Dermal Patch *(Quality 2, Average Complexity, neg. lbs, 1 Hit Point, Hardness 2):* A fine size floppy piece of plastic that contains a single dose of a drug and the chemicals necessary to pass it through the skin. When the adhesive tab is removed and it is applied to a creature's skin, the drug is injected into them. The dermal patch is worthless after it has been used. It takes a standard action which provokes an attack of opportunity to apply a dermal patch.

Injector *(Quality Varies, Average Complexity, 1/10 lbs, 1 Hit Point, Hardness 5):* This device is about four inches long and a half-inch wide, with a slider, button, and retractable half-inch needle on one end. It can contain up to one dose of a drug per point of Quality, even mixing and matching between various drugs up to this amount! Using it to deliver a drug to somebody is a standard action, but an Intelligence check DC 10 is required to remember which slot has which drug if multiple types of drugs are inside the injector. A failed Intelligence check results in a randomly chosen drug dose within the injector being selected.

Adrenal Boost *(Quality Varies, Average Complexity, neg. lbs, neg. Hit Point):* This drug consists of a cocktail of several metabolic-boosting substances, designed to provide a temporary increase to the subject's combat abilities. It add it's Quality to the subject's Strength, Dexterity, and Constitution for up to one minute per point of Quality. After this time has elapsed, the subject is left exhausted and takes 1d6 pints of Vitality damage per point of Quality.

Antibiotic *(Quality Varies, Average Complexity, neg. lbs, neg. Hit Point):* This medicine, when given to somebody who is infected with a disease, bolsters their general resistance to diseases. Any Fortitude save or Heal skill check they make against disease for 24 hours after taking this medicine gets to add twice the antibiotic's

Quality to the roll. The price given is for an injected antibiotic, double the price for ingestible capsule antibiotic. This medicine has no effect against harmful nano.

Disinfectant *(Quality Varies, Basic Complexity, neg. lbs, neg. Hit Point):* When applied to a surface or sprayed in the air, this chemical has a chance of killing any disease present on the material or in the air. One dose can cover a 5 ft cube object, or affect up to a 10-ft radius area of air. Make a Quality x 2 check against each infection DC of all diseases in the affected area. If the check is successful, then the disease is killed. Even if the check fails, those who might be infected by the diseases on the object or in the air get a bonus to their Fortitude save to resist infection equal to the Quality of the disinfectant. If sprayed directly onto the skin, or injected into, a living creature the disinfectant acts like a mild poison. The initial and secondary damage for this poison is 1 temporary Constitution, the onset time is 1 minute, and the Fortitude save DC is equal to twice the Quality.

Intoxicant *(Quality Varies, Simple Complexity, neg. lbs, neg. Hit Point):* This substance is used to inhibit a person's ability to function effectively, by altering their perceptions and providing an overall sense of euphoria. The person taking this drug must make a Fortitude save or take a penalty to his Dexterity and Wisdom ability scores equal to the drug's Quality. The penalty reduces by one point every hour. This drug is addictive.

Rad-X *(Quality Varies, Basic Complexity, neg. lbs, neg. Hit Points):* This drug flows through the system of somebody who has Permanent Doses of Radiation, and cleans their body of the radioactive materials. Unfortunately, it is also a powerful poison that breaks down proteins! Higher Quality doses are more reliable and less toxic. Every dose of Rad-X a creature takes must make a Quality check against a DC of 15. If successful, then a Permanent Dose of Radiation is removed, plus another for every five points the check exceeded the DC. Each dose also acts as a toxin with an Onset Time of 1 minute, and deals 2d6-Quality temporary Constitution damage, both initial and secondary.

Radblock *(Quality Varies, Basic Complexity, neg. lbs, neg. Hit Points):* This drug flows through the system of the user and provides them with temporary protection from radiation by reflecting high-energy waveforms and excited particles. This is not perfect protection, but it is better than none! For one hour per point of Quality after it is taken, Radblock provides extra Radiation Resistance equal to it's Quality. The drug heats up as it does so, causing the user to take Vitality damage from the increased body temperature. This equates to 1d6 Vitality damage every time the Radblock protects from *any* radiation. Even though higher-Quality Radblock provides more protection, it also does not heat up quite so much and therefore produces no more heat overall than lower-Quality Radblock.

Sedative *(Quality Varies, Basic Complexity, neg. lbs, neg. Hit Point):* This drug anesthetizes the person who takes it, causing 1d6 points of Vitality damage per point of Quality unless they make a successful fortitude save against it's effects. Even on a successful Fortitude save, they still lose Vitality equal to the Quality of the drug.

Stimulant *(Quality Varies, Basic Complexity, neg. lbs, neg. Hit Point):* This drug causes the person taking it to tap into reserves of biological energy that their body normally uses for basic life factions, restoring energy at the cost of health. A single dose restores 1d6 Vitality for every point of Quality, but also penalizes Constitution by the same amount for one day. This drug is addictive.

Electronics

Charge Pack *(Quality Varies, Basic Complexity, Points/100/Quality lbs, 1/4th lbs Hit Point, Hardness 5):* A hard plastic casing surrounding a honeycomb fuel-cell used to store large amounts of electrical energy. Each point of charge equates to a single unit of energy. It can hold up to 100 points of charge for every lb of weight, multiplied by it's Quality. Normally, it can be recharged, but non-rechargeable versions can be had at half cost.

Computer: A device for the processing of information by the application of pre-set instructions. It has three parts: the interface, the system core, and the casing. It is usually interfaced with by manual methods, typing and such, but can be wired using standardized ports to other devices such as robots, electronic devices, and neural jacks. All computers are capable of projecting both a holographic display screen and virtual keyboard, using a weak anti-G field to sense the location of the operator's hands as he manipulates the device. A computer can run up to a number of points worth of programs equal to it's Quality x10 simultaneously, and can store up to it's Quality x100 rating points worth of data.

Datasheet *(Quality Varies, High complexity, neg. lbs, 1 Hit Point, Hardness 2):* Flimsy paper-thin computer. The interface is the front of the sheet, which is touch-sensitive and can display information on the entire front side, except for a thin 1/4 inch border. The system core is a series of nanite-etched circuits all along the back side, underneath a thin plastic covering. It's internal power storage circuits can hold one point of charge for every point of Quality, and it consumes one point of charge for every 24 hours of continuous operation.

Pocket *(Quality Varies, Great complexity, 1/2 lbs, 1 Hit Point, Hardness 5):* A block about six inches by four inches by one inch. The case is made from durable plastic, and is designed to unfold into a plate 1/4 inch thick, with half of the front side being the screen and the other half being the keyboard. A set of standardized ports run along the side of the computer, and are accessible both when it is folded up and folded out. It's internal circuitry can hold up to twice it's Quality in points of charge, and it uses one point of charge for every 12 hours of continuous operation.

Case *(Quality Varies, Average Complexity, 10 lbs, Quality x 2 Hit Point, Hardness 10):* This computer is about 1.5 ft by 1.5 ft by 0.5 ft and is encased in durable plastic. One side of the device can be lowered, revealing both a screen and a keyboard interface. The side of the device contains several standardized ports that can be accessed whether or not it is unfolded. The internal circuits of the computer can hold up to four time it's Quality in points of charge, and it uses one point for every six hours of continuous operation.

Major System *(Quality Varies, Average Complexity, 500 lbs, Quality x 100 Hit Point, Hardness 15):* This large computer is a cube three feet on a side, encased in high-grade metals and ceramics. Unlike other computers, it can run up to it's Quality x50 rating points in programs, and can store up to it's Quality x5,000 points of programs and data. the top of the cube is a touch-sensitive holographic projector for an image display and basic interface, as well as a keyboard at the edge. The side of the computer has a series of standardized jacks. The devices internal circuits can hold up to 24 times it's Quality in points of charge, and it consumes one point for every hour of operation.

Environmental Scanner *(Quality Varies, Average Complexity, 1/2 lbs, 1 Hit Point, Hardness 5):* This device provides a constant read-out of the conditions immediately around the unit. In addition to basic atmospheric and magnetic information, it also displays the presence of radiation, germs, poisons, and even nanites. It can be set to provide an audible or transmitted warning if it detects hazardous conditions o specific conditions. It must make a Quality check to detect a particular hazard when the hazard occurs, and gains an additional check every round of exposure. The DC of the check depends on the hazard: Radiation DC 5, Germs DC 8, Poisons DC 5, and Nanites DC 8 + Quality of the nanite. If it beats the DC by at least five, it also reveals the name of the specific hazard detected.

Radio Communicator *(Quality Varies, Basic Complexity, 1/2 lb, 1.2 x Quality Hit Points, Hardness 5):* This device transmits and receives radio signals. It is equipped with a microphone and a speaker so that simple vocal communication can take place with it. It has computer hook-ups, so that it can be used as a remote data-link, or to transmit other types of information (such as from a video feed). It can transmit in either unsecured analogue mode, or in a secure digital format. The receiving unit must be programmed with the same format in order to decipher the communicator's signal. Hacking the signal a communicator uses requires a Cryptography check against a DC equal to 15 + (Quality x 2). If your radio communicator is hooked up to a computer running a Codebreaking program, you get to subtract the rating of the program from the DC. It takes one minute per point of DC to attempt such a check. A radio communicator can transmit for up to it's Quality in miles within a crowded area that has allot of electronic traffic, twice that in a more open area, five times that in the wilderness, and ten times that in space. It can also detect signals out to these ranges. It has a 1 point charge pack of a rating equal to it's own Quality, and can run for up to a day of continuous operation per point of charge.

Magi

These items can only be used properly by those with the Magi feat, and cannot be Crafted by somebody without it. They do not fit any other category of gear, and so are listed here.

If somebody without the Magi feat uses one of these devices, they have a 50% chance it will fail outright, and all their checks with the device are at a -2 penalty.

Force Glove *(Quality Varies, Great complexity, 1/2 lbs, 1 Hit Point, Hardness 5):* This device is a fore-arm bracer and series of open metal bands that surround the back of the user's hand. When the hand is held in a specific position, it fires a blast of directed kinetic energy as a ranged attack. This blast has a range increment of 20 ft, and deals 1d4 points of bludgeoning damage for every point of Quality. It can contain one point of charge for every point of Quality, and uses one of these stored point to emit each kinetic blast.

Intuition Augmenter *(Quality Varies, Amazing complexity, 1 lbs, 1 Hit Point, Hardness 5):* This small semi-translucent globe is made from hard plastic filled with a fog-like suspension of nanites, in the center of which is a dedicated computer and holographic projection node. When grasped and stared into, the computer and nanites set up a lightly hypnotic pattern that places the user in a faint trance. While in this trance he can use any Scholar abilities he has with a bonus equal to the device's Quality. He can also use the device to gain extra daily uses of Scholar abilities. A person can only benefit from this device's extra uses of their Scholar abilities once per point of Quality in any given day. Using this device requires five minutes of concentration per use, and can only be done by somebody with the Magi feat!

Nanotech

Only somebody with the Magi feat can make Nano Ghosts, Nano Interfaces, and Nano Spectres. Nanobots are virtually weightless.

Nano Container *(Quality Varies, Basic Complexity, 1/10 lbs, 1 Hit Point, Hardness 5):* Can store up to 10 doses of nanotech machinery. Can release one or more doses as a standard action by the manipulation of a series of buttons on a slide at the top. Those made for Magi nanotech devices need to be made by Magi, and can also release their contents as a standard action by coded radio transmissions.

Nano Factory *(Quality Varies, Amazing Complexity, 12 lbs, Quality x0.2 Hit Points, Hardness 15):* This dedicated computer system and micro-factory are required to use the Craft (nanotech) skill. If a plan for a particular piece of nanotech is fed into the built-in computer, the factory can produce that nanotech device on it's own. This production takes 1 day for every 10 credits of the nanotech machine's cost, divided by the Quality of the nanotech factory. A nanotech factory can only Craft or be used to Craft nanites of up to it's Quality.

Dedicated *(Quality Varies, High complexity, 2 lbs, Quality x.05 Hit Points, Hardness 15):* This device is identical to a regular nanotech factory, only it has been pared down until it can only be used to produce one type of nanite. This causes it to not only be much cheaper and smaller, but the lack of other functions effectively makes it a nanite assembly line! It produces it's pre-programmed nanotech device at a rate equal to one day per 100 credits of the device's cost, divided by it's Quality (effectively 10 times as fast)! Unfortunately, the process is without any sort of oversight or manual control ability more complex than an on/off switch, so it cannot be used to Craft nanites manually.

Nano Shield (Magi) *(Quality Varies, Average Complexity, 1 lbs, Quality x.5 Hit Points, Hardness 5):* This device emits a low-power omni-direction radio wave when activated, and stores up to it's Quality in doses of Shield Nanites. When it is active, Shield Nanites can be released to float around the unit to a distance of 5-10 feet, forming a protective bubble around the device, the person carrying it, and anything they might be carrying or holding that does not exceed this distance. It's internal charge pack can hold up to it's Quality x 10 points of charge, and it uses up one point for every day of operation.

Nano Torch *(Quality Varies, Average Complexity, neg. lbs, neg. Hit Points, Hardness neg.):* This nanotech device attaches itself to a solid object and either tears apart, or bonds together, whatever molecules it finds. It does 1d10 Hit Points of damage per Quality each round and ignoring hardness. If commanded to cut, this damage represents it's progress through whatever it was applied to. If told to bond, this damage represents how well it has bonded the two objects (once damage equals the lowest Hit Points of a single inch of either object, the bonding is complete). Each dose of these suckers can cover anywhere from up to a square six inches on a side, to a line a quarter inch wide and 12 feet long!

Programs

A computer system cannot run any program with a rating/ranks higher than it's OS rating, and cannot run any OS rated higher than it's Quality. No program can be rated higher than 10, just like Quality.

Astrogation: This program can help to plot a ship's course through space. If a computer using it is also hooked up to the ship's sensors, it can even use stellar positions to triangulate the ships' location, attitude, and trajectory even in interstellar space! In game terms, it provides twice it's rating to the user's Astrogation checks, or can make it's own Astrogation check as if it had a skill rating equal to twice it's rating. The programmer must have at least as many ranks in Astrogation as the program's rating.

Codebreaking: This suite of security-cracking software allows the user to take shortcuts when hacking a computer system. In game terms, he divides the base time for the task by the rating of the Codebreaking program, plus one (i.e. a 100 hour hacking attempt with a rating 3 program is divided by 4, into 25 hours).

Computer system OS: This is the core program that operates a computer. No computer can run another program whose rating exceeds this program's rating. A computer can run up to it's Quality x 10 in programs simultaneously.

Database: Provides a single Knowledge skill with Ranks equal to it's Rating, with a skill total equal to Ranks + Computer OS Rating. The programmer must have at least as many ranks in the same Knowledge as the program's rating.

Design: This is a suite of drafting routines, mathematic technical formulas, and a searchable database of basic design principles for everything from swords to starships. It can be used to make a Schematic of a device that is no higher in Quality to it's Rating, even if no other materials are used. It adds it's rating to the Knowledge check to make *any* Schematic, even one that is of a Quality higher than it's Rating.

Martial Weapons: This robotic program allows a particular model robot to wield a type of martial weapon: melee, firearms, or projectile. The programmer must have the same proficiency as the program.

Programmer's Suite: This suite of basic code blocks, design guides, and programming flow-charts cuts the time it takes to write a program by it's rating plus one (like a Codebreaking program).

Robotic computer OS: This is the core program that operates a particular model robot. It is akin to a regular computer OS, except that much of it deals with the robot's movement and sensor data. This cuts it's effectiveness in half. Computers running this OS can use robotic bodies, but they can only run up to their Quality x 5 in other program ratings. The writer of this program must have a Robotics skill total of at least twice the Robotic OS rating.

Robotic Skill: This program allows any computer that is running a Robotic OS to use the skill the program is named after, as if it had ranks in the skill equal to the program's rating (i.e. "Robotic Disable Device 3" provides 3 ranks in Disable Device to the robot running it). Skills based on Dexterity or Strength are model-specific. The writer of the program must have at least as many ranks in the skill as the program's rating.

Schematic: This is not really a program, but a graphic design for an item. Anybody with even one rank in Computer Use can design a Schematic of any item they can Craft. To do so they make Craft checks as if making the item normally, but they require no materials and 1/1000th the time. They spend the entire time drawing and making notes into the file that is to become the Schematic. Once it is completed, anybody can use the Schematic to gain a +5 competence bonus to Craft or Repair the exact same item shown in the Schematic. If using a Schematic, the person Crafting the device can also Craft it using tools that are one point lower in Quality.

Security: This program is designed to protect a computer system from intrusion. It adds twice it's rating to the DCs to hack the system it is in. If installed in a robot, it provides the robot with a base Will save equal to it's rating. not that that much matters given that robots are almost TOTALLY immune to Will save attacks!

Simple Weapons: This robotic program allows a particular model robot to wield a type of simple weapon: melee, firearms, or projectile. The programmer must have the same proficiency as the program.

Targeting: This program is a set of trajectory plotters and physics engines designed to do one thing: make it easier to hit what you are aiming at! When installed in a robot, or being run by a ship with computer-controlled weaponry, it adds it's rating to all ranged attack rolls. If somebody is using a weapon linked to a computer with this program running, they add half the program's rating to their attack rolls (rounding up) if they are using a heads-up or projected display, and the full rating if they are using a Neural Jack or Cranial Computer!

Translation: This program allows a computer OS to function as a translator for an additional language, other than the one it's interface was written in. Multiple

Translation programs can be used simultaneously, but each one is language-specific.

Survival

These items are intended to allow a sentient being to survive hazardous environments while wearing them, or to at least reduce their discomfort.

Air Mask *(Quality Varies, Basic Complexity, 1 lb, Quality x 2 Hit Points, Hardness 5):* This mechanical device works the same as a Respirator, only it also protects the eyes and ears as well. It does not protect from atmospheres of a pressure more than 2 atmospheric units above or below the user's comfort zone.

Air Tank *(Quality Varies, Basic Complexity, 2 lbs, Quality x 15 Hit Points, Hardness 10):* This canister of pressurized air allows a Medium size creature to breathe for one hour, or a Small size creature for four hours. The creature in question must either be using it in an enclosed space, or by means of a regular Respirator, Air Mask, Pressure Helmet/Suit, or Space Suit.

Atmosphere Recycler *(Quality Varies, Average Complexity, 1 lb, Quality x 6 Hit Points, Hardness 10):* This device converts exhalations into breathable air for one Medium size creature, or four Small size creatures. Each creature it is used for must require the same type of atmosphere and produce the same type of exhalations, each of which the device must be designed to covert. It has the same usage restrictions as the bulkier but cheaper and tougher Air Tank. The device uses up two points of Charge per day of operation. It does not come with a Charge Pack.

Portable Light *(Quality Varies, Simple Complexity, 1/2 lb, Quality x 7.5 Hit Points, Hardness 10):* This small hand-held device is a two-inch diameter rod four inches long. When activated it can either project a 90 degree cone of light for 30 ft + 10 ft per point of Quality, or project a globe of light 15 ft + 5 ft per point of Quality. It can accept up to a 1/4th lb Charge Pack, which is already included in it's weight, and uses a point of Charge for every hour of continuous operation.

Pressure Helmet *(Quality Varies, Basic Complexity, 3 lbs, Quality x 6 Hit Points, Hardness 5):* This full-head device functions in a manner similar to a Respirator and an Air Mask, only it keeps the entire head safe from pressure changes. It prevents blindness and deafness from very drastic changes in atmosphere pressure.

Pressure Suit *(Quality Varies, Average Complexity, 25 lbs, Quality x 150 Hit Points, Hardness 10):* This rigid polymer suit protects the user from extremely dense atmospheres, up to four atmospheric units above their comfort zone. It comes equipped with a portable light on the helmet, an Air Tank, and an Atmosphere Recycler. All of these devices can be manipulated with external and internal helmet switches, and are of the same Quality as the suit. It counts as armor with DR/ER 10, Max Dex +2, ACP -6, and Damage Threshold of it's Quality. It insulates from temperatures as low as 200 °F below comfort zone, and 50 °F above. It does not come with a Charge Pack, but can use up to a 5 lb one.

Respirator *(Quality Varies, Basic Complexity, 1/2 lb, Quality Hit Points, Hardness 5):* This simple mechanical device allows the user to breath from an attached Air Tank or Atmosphere Recycler, with exhalations either being emitted into the atmosphere, or into another line.

Respirator, Reducing *(Quality Varies, Basic Complexity, 1/2 lb, Quality Hit Points, hardness 5):* This mechanical device uses valves and bladders to allow the user to breathe normally in any atmosphere up to a full unit of atmospheric pressure above it's comfortable pressure.

Space Suit *(Quality varies, Average Complexity, 50 lbs, Quality x 300 Hit Points, Hardness 10):* Identical to a Pressure suit, except designed for use in low-pressure atmospheres. It insulates from temperatures as low as -400 °F and as high as 300 °F. It does not come with a Charge Pack, but can use up to a 5 lb one.

Tools

All bonuses from tools are circumstance bonuses. Toolkits and Workshops also add their rating to Repair checks to repair the same kind of item.

It takes tools to make tools. Workshops can be made with toolkits of the same type, and vice versa. In any case, a person can only make tools of a Quality up to the tools he is using, or one higher if he has access to an appropriate Schematic. Quality 1 tools can be made with improvised tools, provided the maker has access to a Schematics for a Quality 1 set of the same type of tools.

Armor Toolkit *(Quality Varies, Average Complexity, 6 lbs, Quality x0.8 Hit Points, Hardness 10):* Add rating to all Craft (armor) checks for armor.

Computer Toolkit *(Quality Varies, Great complexity, 2 lbs, Quality x0.3 Hit Points, Hardness 5):* Add rating to all Craft (computer) and Disable Device checks for computers.

Electronics Toolkit *(Quality Varies, Average Complexity, 3 lbs, Quality x0.6 Hit Points, Hardness 5):* Add rating to all Craft, Disable Device, and Open Locks checks for electronics.

Demolitions Toolkit *(Quality Varies, Basic Complexity, 2 lbs, Quality x0.5 Hit Points, Hardness 5):* Add rating to all Demolitions skill checks.

Medical Kit *(Quality Varies, Average Complexity, 6 lbs, Quality x1.2 Hit Points, Hardness 5):* Add rating to all Heal checks.

Med-Tech Toolkit *(Quality Varies, High Complexity, 5 lbs, Quality x0.5 Hit Points, Hardness 5):* Add rating to all Craft (cybernetics) and Craft (medical) checks.

Robotics Toolkit *(Quality Varies, High Complexity, 5 lbs, Quality x0.5 Hit Points, Hardness 15):* Add rating to all Craft (robotics), Disable Device, and Robotics checks.

Vehicle Toolkit *(Quality Varies, Great Complexity, 10 lbs, Quality x1.4 Hit Points, Hardness 15):* Add rating to all Craft (vehicle type) and Disable Device checks for type of vehicle.

Weaponry Toolkit *(Quality Varies, Average Complexity, 4 lbs, Quality x0.6 Hit Points, Hardness 10):* Add rating to all Craft (weapon type) and Disable Device checks for type of weapon.

Workshop *(Quality Varies, same Complexity, x25 lbs, x25 Hit Points, Hardness same):* Same as Toolkit, but work proceeds twice as fast.

CYBERWARE

The melding of metal and flesh, bone and ceramics, nerves and wires. "Cyberware" refers to any device implanted into a living creature's body that is meant to provide an extra ability, or augment one the creature already has. These mechanisms are referred to as "Cybernetic Devices" when not implanted, in order to differentiate their two states.

These implants can be therapeutic, Servo Muscles being used to help somebody with a genetic muscle disease for instance, or they can be designed for super-human abilities such as built-in radio communication thanks to a Radio Implant. In either case, it is *still* cyberware.

Step-by-Step Cyberware Design

Now that you are more familiar with the technology system used in the Dead Stars game, lets try something fun. Lets try designing a cybernetic system. Cyberware tends to be simpler to design than weapons, most things in this system are. Cyberware does have an added factor to keep in mind: Stress. The more invasive and active a piece of cyberware is, the more strain it puts on the user's body.

Below is a step-by-step guide on designing custom cyberware, of the sort you are familiar with by now. It as well includes an example customized cybernetic device.

Do not be afraid to go back one or more steps so you can get something you forgot or need.

When determining the cost and Hit Points of cyberware, always round fractions down after applying any Options.

Cyberware Design Steps

#1 Choose Cybernetic Device
#2 Choose Quality
#3 Determine Base Cost
#4 Determine Max Options
#5 Choose Options
#6 Determine Price
#7 Determine Characteristics
#8 Determine Price

#1 Choose Cybernetic Device

This is very important. You must choose the device that is going to be able to do what you want it to do. There is no sense picking up Servo Muscles if what you want is silent communication, is there? So take a gander at TABLE 6-1: CYBERNETIC DEVICES, and pick something appropriate.

Shazarak has been asked by his gun-toting friend to design a piece of cyberware to help him out in a firefight. While his friend is doubtlessly wanting yet more armor, the guy is already wearing a Heavy Combat Suit! Shazarak decides to give him what he NEEDS rather than what he WANTS. Shazarak sits down to design an Adrenal Booster for his testosterone-poisoned friend. That way he might actually be able to HIT something in a firefight!

#2 Choose Quality

Like with other types of technology a higher Quality means it is more durable and can have more Options, as well as being more powerful, but also has a higher cost. Be sure to pick a Quality that you can handle!

Shazarak wants to do well by his friend, but is still on a tight budget, so he decides on a Quality of 4 for the Adrenal Booster. This allows him to get a single point of Options, and it will provide a +4 enhancement bonus to the user's Dexterity and Strength, with a not-to-harsh Base Cost.

#3 Determine Base Cost

Now you have to find the actual Base Cost of the cybernetic device you want to implant. This is a very easy step, it is merely applying the formula from the "Base Cost" column of TABLE 6-1: CYBERNETIC DEVICES with the Quality you chose. Record this number, you will need it later. If you do not want to put any Options in the device, then skip ahead to step #6 after finishing this step.

The Quality 4 Adrenal Booster has a Base Cost of Quality x Quality x 500, which totals out to 8,000 credits! He wants to put an Option in it, so he continues on to step #4.

#4 Determine Max Options

Another very easy step to do. Take a look at the entry for the device in the "Max Options" column on the same table. This gives a division of Quality to determine how many Option points the device can have. Don't forget to round down.

The Adrenal Booster has a "Max Options" of Quality/4. The Adrenal Booster Shazarak is designing is Quality 4, so that is one Option point.

#5 Choose Options

Now pick the Options you want from TABLE 6-2: CYBERNETIC DEVICE OPTIONS. Keep in mind that for cybernetic devices, many Options can only be taken by certain types of devices. Do not go over the maximum total amount of Options points you can have, and record the Price Mod for each Option you do take. You will need that later on.

Shazarak doesn't want his friend to suddenly suffer without the Adrenal Booster, so he decides to toughen it up a little. He decides to design it with the Extra Tough Option, which takes up the only Option Point the device can have, and has a Price Mod of +25%.

#6 Determine Price

To find the actual off-the-shelf price of the cybernetic device you want, you need to do three things. First you add together all the Price Mod percentages from the device's Options. Next to find that percentage of the Base Cost recorded from step #3, and write down the total. Finally you add the Base Cost from step #3 to the amount you just got. That is the final Price of the cybernetic device. As normal, if you are Crafting it yourself you only need to pay 25% of this amount for the parts. If you are crafting it you *do* need to have appropriate tools of at least the same Quality, however.

The Adrenal Booster Shazarak is making has only one Option, so adding together the Price Mods is easy. That is +25%. 25% of the 8,000 Base Cost from step #3 is 2,000. Adding together these two numbers results in a final Price for the cybernetic device of 10,000 credits!

#7 Determine Characteristics

Now you have to find the nitty-gritty of it all. What does the device do to, and for, the user it is implanted into? Find the device's Stress amount by taking the amount from the "Stress" column of table 6-x Cybernetic Devices, and applying the modifiers for any Options it might have. The Stress is not actually rolled until it is implanted. Find it's Hit Points in the same manner but using the "Hit Points" column. Its Hardness is equal to the amount listed in the "Hardness" column, also modified by the Options. Also record exactly *what* it does for the user, in a manner you make sense of.

The Quality 4 Adrenal Booster that Shazarak has designed ends up having a Stress of 1d4, 5 Hit points (4 + 1 from Extra Tough), and a Hardness of 3 (2 + 1 from Extra Tough).

Cyberware Limits

A character cannot have more Stress points worth of Cybernetics than they have Constitution score. If a character is implanted with a cybernetic device that ends up causing him to accumulate more Stress than his Constitution score, then complications can occur. If a character's Constitution score later drops below his accumulated Stress, or a new implant's Stress brings his total above his Constitution, then his body starts to reject all the implants.

A character who is rejecting implants must make a Fortitude save every day, with a DC of 10 + half his total Stress. Every failed save causes a point of Constitution drain! Surgery can be used to remove cybernetics in order to reduce the character's overall Stress, but it needs to be done *quickly*, or the character could end up dead. While his body is rejecting implants, characters have a harder time resisting damage and tire quicker. The difference between their Constitution score and their total Stress becomes both a penalty to their Fortitude saves, and their maximum Vitality is reduced by the same amount!

Some implants preclude or give discounts to others.

TABLE 6-1: CYBERNETIC DEVICES

Implant	Stress	Base Cost	Max Options	Hit Points	Hardness
Adrenal Booster	1d4	Quality x Quality x 500	Quality/4	1 x Quality	2
Aural Replacement	1d6	200 x Quality	Quality/2	1 x Quality	5
Body Pocket	1d6	100 x Quality	Quality/4	1 x Quality	2
Breath Filter	2+1d4	50 x Quality	Quality/4	2 x Quality	2
Cerebral Computer	1d6	Quality x Quality x500	Quality/2	1 x Quality	2
Claws	1d4	500 x Quality	Quality/2	1 x Quality	10
Crash Doc	2+1d6	Quality x Quality x 250	Quality/3	3 x Quality	2
Dead Man Walking	1d4	(Quality x 25) + 1 lb explosive	Quality/4	1 x Quality	5
Internal Air Tank	1d4	500 x Quality	Quality/4	1 x Quality	8
Nanite Hive	1d4	150 x Quality	Quality/4	1 x Quality	8
Neural Jack	1d4	200 x Quality	Quality/3	1 x Quality	5
Ocular Replacement	1d6	250 x Quality	Quality/2	1 x Quality	5
Pain Blocker	1d6	150 x Quality	Quality/4	1 x Quality	2
Plastifiber Subdermal	2+1d6	500 x Quality	Quality/3	3 x Quality	2
Radio Implant	1d4	500 x Quality	Quality/2	1 x Quality	2
Replacement Arm	2+1d6	500 x Quality	1+ Quality	3 x Quality	8
Replacement Foot	1d4	150 x Quality	Quality/3	1 x Quality	8
Replacement Hand	1d4	200 x Quality	Quality/2	1 x Quality	8
Replacement Leg	2+1d6	400 x Quality	Quality	3 x Quality	8
Servo Muscles	4+1d6	Quality x Quality x 2,000	Quality/2	5 x Quality	2
Skeletal Reconstruction	4+1d4	30,000 x Quality	Quality/4	5 x Quality	10
System Monitor	1d4	100 x Quality	Quality/4	1 x Quality	2
Talons	4+1d4	1,250 x Quality	Quality/2	5 x Quality	10
Trauma Resistance	4+1d6	5,000 x Quality	Quality/3	5 x Quality	2
Wired Nerves	4+1d6	Quality x Quality x 3,000	Quality/3	5 x Quality	2

TABLE 6-2: CYBERNETIC DEVICE OPTIONS

Options	Points	Price
Built-in Device	1 per lb	+(device x2)
Easy Repair	2	+50%
Extra Tough	1 per	+25%
Reduced Stress	3 per	+100%
Removable	1	+25%

TABLE 6-3: OCULAR REPLACEMENT OPTIONS

Ocular-Only Options	Points	Price
Built-In Display	1	+10%
Low-Light Vision	2	+25%
M.A.D. Vision	4	+300%
Mag-Vision	2	+200%
Micro-Vision	2	+100%
Thermal Vision	3	+50%

Descriptions

All Cybernetic implants are of Amazing complexity, but also made of very tough materials. They have a number of Hit Points equal to the amount listed on the table above, but are often shielded by the body so it is rare for them to be damaged. Devices listed as having a Neural Connection have a two-way signal path to the user's central nervous system, while others are simpler one-way neural triggers or have no connection to the nervous system at all. Devices listed as being External are still implanted, but they are mainly outside the user's body (such as Replacement Limbs), and do not require surgery to repair.

Adrenal Booster (Neural Connection): When activated, which takes a free action, this device causes the user's body to produce dangerously high levels of adrenaline and neurotransmitters. The overall effect is a temporary, but powerful, boost in combat ability. Each round this system is active the user adds it's Quality to his Dexterity and Strength scores as an enhancement bonus, but also takes 1d6 points of Vitality damage! This device has to consciously be used, so if the user is *stunned,* rendered *unconscious,* or cannot otherwise take actions it automatically shuts down. The low price make this an acceptable solution to the more expensive, but safer, Servo Muscles and Wired Nerves cybernetics.

Aural Replacement (External, Neural Connection): Your ears are artificial, providing you with a bonus to your Listen checks equal to their Quality.

Body Pocket: This is a compartment hollowed out of the user's body, with a disguised flap covering it. It takes a standard action to place something in to, or take it from, the pocket. The pocket is lined with materials that help to muddle active and passive sensor scans, as well as conducts body heat in a way that seems realistic to the touch. It can hold up to 4 lbs of objects for a Medium size creature, or 1 lb for a Small size creature. Search attempts, by hand or by sensor, have a DC of 20 + (Quality x 2) to detect the pocket's presence!

Breath Filter: This is a series of esophageal shunts, valves, and filters that monitor inhaled atmosphere for pollutants, and prevent them from passing on into the lungs. The user of this system gets to add twice it's Quality as a bonus to resist airborne poisons and diseases, but only it's Quality to resist inhaled nanites.

Cerebral Computer (Neural Connection): You have an onboard computer that can run any programs it is loaded with, like a robot. The compute comes with a robotic OS of equal Quality for free. For all intents and purposes, you are treated as a robot when running programs from the computer.

Claws: Your fingernails can extend as a free action, into 1d6 + Strength mod damage bladed weapons. They deal +1 damage for every two full points of Quality. Cybernetic Claws have a Gear level equal to 1 + 1/2 Quality.

Crash Doc: This system of miniature chemical factories and administers can only be used if hooked up to a functioning System Monitor. They use dedicated logic circuits to administer doses of drugs produced from the user's bloodstream chemicals that will help maintain life functions in even the most severe conditions. Add their Quality to the user's Death Level (how far he can go into negative Hit Points before dying), as well as to his Fortitude saves to stabilize and regain consciousness when at negative Hit Points. It takes 72 hours for the system to refresh it's store of chemicals after the system has been used to keep the owner alive.

Dead Man Walking: A jovially named device used as a means of blackmail. It is actually a single pound of explosive material wired to an anti-tamper device and a coded radio receiver. Should the device be tampered with before being deactivated, the explosive goes off. Should the device receive the coded radio pulse it is programmed for, it goes off. This is a terror weapon, and need not have the extra explosive, a slimmed-down version implanted next to the heart is only 1d3 Stress and is still lethal. Another method of set-up is to design it to trigger upon receiving certain input from a System Monitor, whether or not it will detonate with an external signal is up to the designer (many use this as a "last insult" system for when they flat-line). No matter which type it is, the detonation of the device *kills* the user (with the 1 lb explosive version tending to leave only a charred smear behind)! The Disable Device check to deactivate the device without the access code is DC 20 + (Quality x 2). It functions as a radio receiver with a Quality equal to it's own Quality for purposes of jamming and distance.

Internal Air Tank: You have an internal air tank that can contain enough air to sustain you for it's Quality x 10 minutes. The air tank comes with a pressure regulator that lets you breathe off this air supply even in hard vacuum or under water. The air tank is refilled by means of an external nozzle, usually located on the lower back.

Nanite Hive: Stores up to it's Quality in doses of nanites, which are released upon specific conditions being met, or when a signal is sent from either a Cerebral Computer or a System Monitor. It has an access port located on the body, similar to a Neural Jack, which can be used to refill the nanites, or release them.

Neural Jack (Neural Connection): Your brain is fitted with a interface that allows you to pass information to and from an external computer jack, usually located on the temple or behind the ear. Any electronic device you are controlling with the aid of this cybernetic implant adds your implant's Quality to all of your skill checks with the device. Some devices, such as powered armor, have other benefits.

Ocular Replacement (External, Neural Connection): Your eyes are artificial, providing you with a bonus to your Spot checks equal to their Quality. You do not retain any special vision modifiers when using Ocular Replacements, such as low-light vision or vision impairment.

Pain Blocker: This system of microprocessors along the body's main pain conducting nerves detects, and tones down, the sensation of pain. It increases the amount of Hit Point damage the user must take before suffering pain modifiers by it's Quality, possibly eliminating them altogether! It also cancels out a amount of "pain" penalties equal to it's Quality. This system makes torturing the user more difficult, adding it's Quality to his Will save to resist being tortured. A generally useful, and popular, piece of cyberware.

Plastifiber Subdermal: Your skin is impregnated with high-strength flexible fibers woven together under the surface. These fibers help to prevent injury by increasing the difficult of penetrating your skin, and distributing kinetic impact over a wider area. The result is that you get to add the Quality of the implant to your Damage Reduction! This implant provides no protection against damage from atmospheric pressure or the lack of it, except that it prevents you from "ballooning" in a vacuum. Your eyes, ears, and lungs can still be damaged by hard vacuum. note that if you have Plastifiber Subdermal, Internal Air Tank, Aural Replacement, and Ocular Replacement that you are effectively walking around with a built-in space suit! Cybernetic Plastifiber Subdermal has a Gear level equal to Quality.

Radio Implant (Neural Connection): You have a built-in basic radio communicator without encryption ability. the Quality of this communicator is the same as the Quality of the implant. If you have a Cerebral Computer, you can run a security program on it in order to give your radio communications some measure of protection against interception.

Replacement Limbs: All Replacement limbs (arm, foot, hand, and leg) share certain characteristics. In addition to being able to fit in extra devices as Options, you also do not incur any Stress for some cybernetic implants if they are built into the limb. Instead, each one occupies a number of the Replacement limb's Options equal to the amount of Stress it would have incurred. Any Stress from such cybernetics that exceeds the amount of Options for the limb is treated as regular Stress. Special Damage that results in this arm being harmed (such as the Slashing effect) applies it's damage to the Replacement Arm instead of to the arm's user. No other effects are incurred.

All cybernetic limb rely on the character's existing hand-eye coordination and sense of body motion, and while lower-tech replacement limbs have Dexterity penalties to any check made with them, modern limbs do not. A Replacement limb's base Strength is dependant on it's Size: Tiny is 9, Small is 11, Medium is 13, and Large is 15. Extra Strength can be added, but each +1 to the Strength score reduces the limb's available Options by one.

The Strength score from Replacement Hands only counts for grip Strength and Grapple Attacks. The Strength score from Replacement Arms also counts for extra damage from melee weapons and for determining weather a character incurs any penalties from wielding a weapon (average the Strength scores of two different-Strength arms if wielding a weapon in two hands).

The Strength score from a Replacement Foot only modifies the character's overall Strength for encumbrance purposes. Each Replacement Foot's Strength is averaged with the Strength of the Character to determine the Strength of the leg, and then the two legs are averaged together. A Replacement Leg's Strength is averaged with the character's Strength to determine their encumbrance. If a character has two Replacement Legs, then they add +2 to their Strength for encumbrance purposes.

All limbs have DR and ER equal to 5 + Quality.

Replacement Arm (External, Neural Connection): Your entire arm, starting from the shoulder joint on down, has been replaced with an artificial arm made from ceramics and metal. In addition to being able to fit in extra devices as Options, you also do not incur any Stress for these cybernetic implants if they are built into the arm: Claws, Nanite Hive, Radio Implant, and Talons. You cannot have a Replacement Arm *and* a Replacement Hand on the same arm, the Replacement Arm *includes* a Replacement Hand.

Replacement Foot (External, Neural Connection): Your foot from below the knee on down has been replaced with a synthetic foot made from ceramics and metal. In addition to being able to fit in extra devices as Options, you also do not incur any Stress for these cybernetic implants if they are built into the foot: Radio Implant. You cannot have a Replacement Leg *and* a Replacement Foot on the same leg, the Replacement Leg *includes* a Replacement Foot.

Replacement Hand (External, Neural Connection): Your hand from below the elbow on down has been replaced with a synthetic hand made from ceramics and metal. In addition to being able to fit in extra devices as Options, you also do not incur any Stress for these cybernetic implants if they are built into the hand: Claws, and Talons. You cannot have a Replacement Arm *and* a Replacement Hand on the same arm, the Replacement Arm *includes* a Replacement Hand.

Replacement Leg (External, Neural Connection): Your entire leg, starting from the hip joint on down, has been replaced with an artificial leg made from ceramics and metal. In addition to being able to fit in extra devices as Options, you also do not incur any Stress for these cybernetic implants if they are built into the arm: Nanite Hive, and Radio Implant. You cannot have a Replacement Leg *and* a Replacement Foot on the same leg, the Replacement Leg *includes* a Replacement Foot.

Servo Muscles: Your muscles are augmented by pneumatic fibers, adding an enhancement bonus to Strength equal to the implant's Quality. This bonus to Strength does not apply to a Replacement Arm, Replacement Foot, Replacement Hand, or Replacement Leg. If you want the Strength of those limbs to match your body's Strength, you need to use the Increased Strength Option.

Skeletal Reconstruction: Ceramics and metal laced artificial bones are filled with your regular bone marrow and replace all of your natural bones. This has the effect of making you tougher to hurt, while also providing you many other benefits. You get to subtract the Quality of your Skeletal Reconstruction from the amount of Hit Point damage you take from physical attacks, but this cannot

prevent you from taking at least one point. You also get to add the Quality of your Skeletal Reconstruction to your natural melee weapon and unarmed attack damage as an Enhancement bonus (including that from Claws or Talons)! While these bonuses do not apply to Replacement limbs, the extra strong anchoring your Skeletal Reconstruction allows lets you add half the quality of this Implant to each limb's Strength as an enhancement bonus! Cybernetic Skeletal reconstruction has a Gear level equal to 1 + 1/2 Quality.

System Monitor: A dedicated computer that is wired into the character's cybernetic implants, and keeps track of not only their condition, but also the condition of the character. It can be used to access medical information on a character by means of a Neural Jack, Radio Implant, or Cortex Computer. It can also be programmed to activate or deactivate one or more cybernetic devices when differing medical or system conditions are met. It can hold up to one such setting per point of Quality. Typically, they are used to release medical nanites into the character's body when his Hit Points drop below half, but other settings are possible. Anybody using the Heal skill on a person with this device receives a +5 bonus if they have access to the data the device monitors. A character with one of these devices *always* knows when he has poisons, diseases, or nanites in his body, as well as their clinical terms (if they are known or recognizable). A character with both this system and a Cerebral Computer discounts the Stress cost of the cheaper system by 1 point (minimum of 0 Stress).

Talons: Small blades from your forearms extend as a free action, which deal 1d10 + Strength mod damage. They deal +1 damage for every two full points of Quality. Cybernetic Talons have a Gear level equal to 2 + 1/2 Quality.

Trauma Resistance: Governor systems are lined across your nervous system that intercept pain signals, and use them to stimulate bodily reactions specifically meant to prevent you from going into Shock. This has the effect of adding the Quality of this enhancement to your Hit points. The user still *feels* the pain, but is not as liable to be debilitated by it. You cannot have both Trauma Resistance and Wired Nerves.

Wired Nerves: Computer-assisted peripheral nervous system augmentation helps to improve your hand-eye co-ordination and overall grace. You get to add the Quality of this cybernetic implant to your Dexterity score as an Enhancement modifier. You cannot have both Trauma Resistance and Wired Nerves.

Options

Built-in Device: This Option allows another device to be built into this cyberware, provided the second device is not a cybernetic one. The device's ammunition, and energy requirements, must be met by an outside port that is included with this Option. If the cyberware normally has a Neural Connection, then the device can also be used by neurological impulses. The cost of this Option is not a percentage, but is instead an amount equal to twice the built-in normal device's cost (1 per lb Options, +(device x2) Price).

Built-In Display (Ocular Only): This Option allows the user to display data from his cybernetic devices into his field of vision, as if using a high-end holographic display. This system can also be used to display information being received from a Neural Jack or Radio Implant. The overall effect is a bonus to his skill checks to manipulate the data equal to the Quality of his Ocular Replacements. This is a circumstance bonus (1 Options, +10% Price).

Easy Repair: This Option allows the cybernetic device to be easier to fix, replace, or remove than normal by means of more surgery-friendly design. The Heal and Repair skill check DCs are lowered by 5 (2 Options, +50% Price).

Extra Tough: This device is made from sturdier materials, and with extra durable system design. This Option can be taken multiple times. Each time this Option is taken the device gains an additional Hit Point and an additional point of Hardness (1 per Options, +25% Price).

Low-Light Vision (Ocular Only): Ocular Replacements with this Option use advanced light-augmentation circuits to increase the user's perception in low-light conditions. The effect is as if the user had Low-Light Vision (2 Options, +25% Price).

M.A.D. Vision (Ocular Only): This Option allows the user to emit a very low intensity magnetic filed from his eyes, then interprets the variances in that field as locations and types of metal. This Option allows the user to automatically perceive the weight and *general* composition (ferrous metal, low-grade alloy, advanced alloy, ect) of all metals along with their location. This effect only works within a 90-ft cone the user is facing, and even then only out to a range of 10 ft + (10 ft x Quality). This ability is so powerful, that it can even be used to detect the presence of metals the user does not have line-of-sight to (4 Options, +300% Price).

Mag-Vision (Ocular Only): Ocular Replacements with this Option can reduce penalties for Spot and Range Increment by up to the Quality of the Ocular Replacements. Only penalties incurred from distance are reduced. This stacks with ranged penalty reduction from a Sniper Scope (2 Options, +200% Price).

If taken with the Micro-Vision Option, the total for the two Options is 3 Option points, and +250% Price.

Micro-Vision (Ocular Only): Ocular Replacements with this Option use a system similar to Mag-Vision, but with a much closer focal length. They provide a bonus equal to the Quality of the Ocular Replacements to the user's Craft, Disable Device, and Repair skill checks (2 Options, +100% Price).

If taken with the Mag-Vision Option, the total for the two Options is 3 Option points, and +250% Price.

Reduced Stress: The cybernetic system with this Option is designed to mimic as many of the user's biological functions, reducing the strain on the user's body. This Option can be taken multiple times. Each time it is taken reduces the cyberware's total Stress by one point, to a minimum of one point (3 per Options, +100% Price).

Removable: Only External cyberware can have this Option. The device is built so that the main portion of it can be separated from the interface with the user's body, allowing for another system of the same type and Quality to take it's place. This is done with a Repair DC 10 + Quality check, but takes only a full action to finish (1 Option, +25% Price).

Thermal Vision (Ocular Only): Ocular Replacements with this Option can see the world around them in variances of heat energy. This gives them the Darkvision (Heat Based) ability out to a range of 10 ft x Quality (3 Options, +50% Price).

Damaging Cybernetics

Cybernetic devices take damage whenever their user fails a Fortitude save, or must make a Fortitude save to resist a Special Damage effect. This means that if he *fails* a Fortitude save against a Special Damage effect, he is in serious trouble! Each time a cybernetic system would take damage, roll percentile dice for each piece of cyberware the person has. The chance of that piece of cyberware being damage equals its total Stress multiplied by 2%, with a device that has no Stress still having a 1% chance to be damaged! In the case of a failed Fortitude save against a Special damage effect, roll the percentile die *twice* for each piece of cyberware.

If the percentage roll indicates damage to a piece of cyberware, the amount of damage dealt to it equals the total damage taken from the attack that triggered the Special Damage Fortitude save, or the amount by which the Fortitude save was failed, whichever is approriate. Cyberware is tougher to hurt than flesh, even the most mundane piece of cyberware has a Hardness rating, just like other types of objects. The Hardness of each piece of cyberware is subtracted from the damage it is to take.

Once a piece of cyberware has been reduced to 0 or less Hit Points it is no longer functional, but can be repaired by means of surgery. If the cyberware's Hit Points are reduced to 50% or more of it's maximum below 0 then it has been *destroyed,* and is no longer worth anything but scrap (1% of it's original value).

Chris Wilson

GENE-JACKING

"Gene-Jacking" is a slang term for genetic modification. This refers to knowingly altering the genetic code of a living creature, in order to express a desired alteration. In it's most radical form it can be used to artificially create entirely new species. The more common usage, and the one detailed in this section, is the augmentation of a living creature.

Who does it

Of all the civilizations to develop genetic engineering technology, the Orliss are by far the oldest and most proficient of them. Their species developed from a highly advanced plant that mutated a single cell structure, a mutation which allowed cells of that structure to alter themselves as needed. This mutation then advanced into mutating the DNA of their seed cells to better adapt to an environment, and eventually to the development of first mobility, then cognizance. Now, millennia later, they are the masters of genetic engineering. Unlike other races, they do not require any special equipment to analyze and alter a being's genetic code. All they need is access to a cell sample, and the time to make the custom retrovirus that will re-write that person's DNA. Of course, most beings cannot take such a radical change to their genetic make-up and survive, which requires life-support equipment such as a body tank.

Other than the Orliss, anybody with the requisite skills and tools can genetically modify others.

How-to guide

Any character, except the Flakam, can have their genetic code tinkered with. To do so they need to submit a sample of their DNA to the technician who is going to be designing the alteration they want. The technician then makes a Knowledge (biology) check against a DC based on the type of change. Purely cosmetic alterations (eye or hair color for instance) have a DC of 15, and no drawbacks. An alteration that provides a minor advantage has a DC of 20, and one disadvantage. An alteration that provides a major advantage has a DC of 30 and *two* disadvantages! It takes a medical toolkit and one hour of work, per point of DC, on a computer to design the alteration. A Database (Genetics) file on the computer subtracts twice it's rating from the DC.

Once the alteration has been designed, any technician can use the Craft (medical) skill to create a retrovirus in order to re-write the subject's DNA. This has a DC of 20, and requires a medical toolkit, the Quality of which reduces the DC on a one-for-one basis. It takes the normal amount of time to Craft the retrovirus as it would to build something of the alteration's cost. Once injected into the subject's bloodstream, the retrovirus will re-write their DNA, and spark cellular mitosis so that the altered genes have an opportunity to express themselves. This process is unbelievably painful to all beings except the Orliss, and can cause high temperatures and even death. It takes an a number of days for the process to complete itself, during which time the subject is *staggered* and must make Fortitude saves to avoid taking temporary Constitution damage! The length of time, and DC of the Fortitude save, is based on the type of alteration being expressed:

TABLE 6-4: GENE-JACKING

Type	Fort DC	Expression Time
Cosmetic	10	1d6 days
Minor	15	2d6 days
Major	25	4d6 days

Due to the hazards that genetic engineering causes, the recipients are usually immersed in a body tank filled with an anesthetic solution. While in the body tank, helpful nanites ease their fever and cleanse their skin, while they receive all their nutrients by means of tubes. Their condition is monitored by sensor pads and brain-wave recognition systems, to maintain them in a light trance state and make sure they are not in any danger. When the indicators show the retrovirus has done it's job and died off, they are remove from the tank and usually revive within an hour.

Orliss can ingest a sample of the subject's cells in order to design the alteration *and* create the retrovirus! When receiving a genetic alteration, they do not suffer from sickness, and require no body tank, but must instead plant themselves some place they can receive nutrients and fall into a coma for the indicated period of time.

Once the character has finished undergoing the expression of the new genes, it's time to see what errors it has created in his genetic code. At that point, roll on the Disadvantages table, adding +5% for every time they already underwent genetic enhancement!

A creature that has progeny after it has been genetically altered has only a 10% chance of passing each alteration on to it's offspring. This chance goes up to 25% if both parents have the same augmentation. If an augmentation *is* passed on, then there is a 25% chance that that augmentation's disadvantage(s) are not! If the disadvantages are not passed on, then the offspring has a 50% chance to pass on the disadvantage-free augmentation, 100% if both parents have the same augmentation without a disadvantage. Any creature that inherits a genetic modification in this manner is treated as having a Level Adjustment of +1 for every Major Advantage, or two Minor Advantages (rounding up). In essence, they are a new and superior species.

Minor Advantages

TABLE 6-5: MINOR ADVANTAGES

Genetic Alteration	Market Price
Claws	500
Disease Resistance	2,000
Killer Instinct	1,500
Low-Light Vision	500
Minor Ability Augmentation	3,000
Poison Resistance	2,000
Temperature Tolerance	1,000
Tough Hide	750
Universal Digestion	2,500

Claws: Your fingers can extend retractable chitin claws. These claws deal slashing damage based on your size category: Tiny 1d2, Small 1d3, Medium 1d4, Large 1d6, and Huge 1d8.

Disease Resistance: You gain a +4 bonus to your Fortitude saves to resist diseases, and a +2 bonus to your Fortitude saves to resist harmful nanites.

Killer Instinct: Your instinctive feral urge to kill is now under your conscious control. Whenever a target within 30 ft of you is denied its Dexterity bonus to its Defensive Class, is flat-footed, or is Flanked (whether by you or somebody else) all of your successful attacks against it deal an additional point of damage.

Low-Light Vision: Your optical organs have been enhanced to pick up more detail in poor light. This provides you with the Low-Light Vision special quality.

Minor Ability Augmentation: One of your ability scores that you choose gains a +2 bonus. This genetic modification is not cumulative with Major Ability Augmentation on the same ability score. It can be taken up to six times, applying to a new ability score each time.

Poison Resistance: Your enhanced blood-cleaning organs filter out harmful agents much better than they normally would. This provides you with a +4 bonus to your Fortitude saves to resist regular poisons, and a +2 bonus to resist the effects of drugs (including to avoid and overcome addiction).

Temperature Tolerance: When determining whether or not you suffer any ill effects from extreme cold or heat, you treat the temperature as if it where 10 degrees closer to your comfort zone.

Tough Hide: Your skin has been thickened and hardened. You gain an extra 2 points of Damage Reduction, but only against slashing and piercing attacks and slug-throwers.

Universal Digestion: Your digestive system is capable of deriving nourishment from almost any organic substance, while shielding you from harmful effects of what you ingest. You gain a +6 bonus to your Survival checks to find food (but only for yourself), and a +3 bonus to resist the effects of ingested poisons.

Major Advantages

TABLE 6-6: MAJOR ADVANTAGES

Genetic Alteration	Market Price
Blindsense	5,000
Darkvision	5,000
Major Ability Augmentation	15,000
Psionic Encoding	10,000
Venomous Attack	7,500

Blindsense: You gain Blindsense of 30 ft. This is based of a form of ultra-sonic echolocation. You cannot speak while using this ability, and your listen checks are also penalized by -4 when using this version of Blindsense.

Darkvision: You gain Darkvision of 60 ft. This is done by your optical centers being tuned so that they can perceive the reflections of your body's bio-electric field. In situations that would interfere with scanning devices, your ability to use this form of Darkvision is also impaired.

Major Ability Augmentation: One of your ability scores that you choose gains a +4 bonus. This genetic modification is not cumulative with Minor Ability Augmentation on the same ability score. It can be taken up to six times, applying to a new ability score each time.

Psionic Encoding: Your mind has been rewired to develop a type of psionic ability. Choose one of the following feats: Fetching, Psychokinesis, or Telepathy. You gain that feat as a bonus feat. This genetic enhancement can be taken up to three times, with a new feat gained each extra time it is chosen.

Venomous Attack: Your natural weapon attacks, such as claws and bites, inject a poison into the creature you strike. This poison is actually a digestive enzyme that causes tissue breakdown and muscle cramping. It has a vector of Injury, deals 1d4 temporary Strength damage as primary, and 1d2 temporary Constitution damage as secondary. The save DC for this poison is equal to 10 + your Constitution modifier. You can also spit this poison as a ranged attack with a range increment of 5 ft, and only up to five range increments. Spitting the poison allows a +4 bonus to the foe's initial Fortitude save, and has a -4 penalty to hit. Spit poison is totally ineffective against a target wearing environmental protection, or a full-faced helmet.

Disadvantages

TABLE 6-7: GENETIC DISADVANTAGES

d%	Random Genetic Disadvantage
01-35	Radiation Intolerance
36-45	Reduced Constitution Score
46-55	Reduced Dexterity Score
56-65	Reduced Strength Score
66-70	Reduced Intelligence Score
71-75	Reduced Wisdom Score
76-80	Reduced Charisma Score
81-85	Fragile Biology
86-90	Weak Immune System
91-95	Frail Bones
96-100	Light Weakness
101+	Progressive Genetic Degradation

Fragile Biology: You have a -4 penalty to your Fortitude saves to resist the effects of poisons and drugs.

Frail Bones: You take an extra point of Hit Point damage whenever you take any bludgeoning damage, even if it was from a Vitality-damaging attack! This only applies to damage that has gotten through your damage reduction.

Light Weakness: You are at a -2 penalty whenever in normal illumination (no vision penalties), and -1 if in shadowy illumination. These penalties apply to all skill checks, to-hit rolls, and saving throws.

Radiation Intolerance: Whenever you take any radiation damage, increase it by 50%. This only applies to damage that has gotten through your radiation resistance.

Reduced Charisma Score: Your Charisma ability score is reduced by 1d4 points *permanently!* This cannot reduce it below 1. if you have either Minor Charisma Augmentation, or Major Charisma Augmentation, then ignore this disadvantage and roll again.

Reduced Constitution Score: Your Constitution ability score is reduced by 1d4 points *permanently!* This cannot reduce it below 1. if you have either Minor Constitution Augmentation, or Major Constitution Augmentation, then ignore this disadvantage and roll again.

Reduced Dexterity Score: Your Dexterity ability score is reduced by 1d4 points *permanently!* This cannot reduce it below 1. if you have either Minor Dexterity Augmentation, or Major Dexterity Augmentation, then ignore this disadvantage and roll again.

Reduced Intelligence Score: Your Intelligence ability score is reduced by 1d4 points *permanently!* This cannot reduce it below 1. if you have either Minor Intelligence Augmentation, or Major Intelligence Augmentation, then ignore this disadvantage and roll again.

Reduced Strength Score: Your Strength ability score is reduced by 1d4 points *permanently!* This cannot reduce it below 1. if you have either Minor Strength Augmentation, or Major Strength Augmentation, then ignore this disadvantage and roll again.

Reduced Wisdom Score: Your Wisdom ability score is reduced by 1d4 points *permanently!* This cannot reduce it below 1. if you have either Minor Wisdom Augmentation, or Major Wisdom Augmentation, then ignore this disadvantage and roll again.

Progressive Genetic Degradation: Every month the character must make a Fortitude DC 20 save. If he fails, then his biological systems degrade due to cell replication errors. This degradation takes the form of a single point of *permanent* ability score loss in Strength, Dexterity *and* Constitution!

Weak Immune System: You have a -4 penalty to all your Fortitude saves to resist diseases and harmful nanites.

SEVEN: ROBOTS AND NANO

Chris Wilson

This chapter details the two types of autonomous gear: robots and nanotech machines. It explains what each is, how they function, and how to design them using the Dead Stars technology system.

ROBOTS

The term "robot" refers to any autonomous machine capable of movement and independent action in accordance to given instructions. Robots vary from automated assembly line workers, to floor cleaning machines, to combat-designed killing machines. While even vehicles running on automatic pilot fit this definition, they do not fit the "robot" image.

When most people think "robot", they image that pops into their head is a humanoid or animalistic machine that moves around under its own power, performing tasks it has been designed and ordered to do. The proper term for this is actually "android" for a humanoid robot, and "aniform" for an animal-like robot. In either case, it is these two types of robots that the technology system in Dead Stars is used to design.

Step-by-Step Robot Design

Robots are a little more complex to design than armor, but not by much. Most of their difficulty comes from determining the robot's creature characteristics; the basic design itself is fairly simple. You choose a "Chassis" from TABLE 7-1: ROBOTIC CHASSIS TEMPLATES, pick a Quality for it from 1 to 10, then assign any Options you want that it can handle. More expensive, and higher-Quality, robots can have more points worth of Options. The more Options a robot has the more it costs, but the better it performs! To help you through this process, I'm going to go over robot design a step at a time, complete with an example robot we will design together. The examples are below each step, in italics.

Do not be afraid to go back one or more steps so you can get something you forgot or need.

When determining the cost and Weight of a robot, always round fractions down after applying any Options.

Robot Design Steps

#1 Choose Chassis Template
#2 Choose Quality
#3 Determine Base Cost
#4 Choose Options
#5 Pick Computer Quality
#6 Pick Programs
#7 Determine Characteristics
#8 Determine Hit Points
#9 Determine Gear Level
#10 Determine Price

#1 Choose Chassis Template

Pick the general form and function of your robot, its size and overall purpose. A robot that is supposed to be combat-oriented would be a Combat chassis, one designed for menial tasks would be a Domestic chassis, and one designed for animal or anthropomorphic purposes would be a PC chassis. Essentially, the *purpose* of the robot determines what kind of chassis Template that it should be.

Shazarak and his friends have been having a rough time salvaging derelict ships and space stations. Not because they have a lack of prospects, but because they often run into others with the same idea! Often, they have to fall back to their ship without some very valuable salvage, simply because they cannot carry it. Shazarak decides to build a robotic laborer, to carry things for them. It does not need to actually engage in combat, so he gives it a Domestic chassis. It needs to get into and out of areas designed for humans, and needs to carry allot of materials, so he decides to make it Medium size. In order to reduce it's price, so he can pile more Strength onto it affordably, he makes it have wheels (-50% Price).

#2 Choose Quality

Now you pick the Quality you want the robot's Chassis to be. This determines it's final Hit Points, maximum amount of Options, and much of it's Price. The higher it is the tougher it is and more options it can have, but the more expensive it gets. Be careful here, you do not want to go over budget!

Shazarak decides on a Quality 3 Chassis. This gives it 8 options (5 + Quality), and a Base Cost of 1,500 (500 x Quality). It also will help to insure that the dang thing has SOME Hit Points!

#3 Determine Base Cost

Now you figure out and record the Base cost of your robot, according to what chassis it has and the Quality of that Chassis. A very easy step, one you probably already figured out from step # 2.

The cost of Shazarak's robotic mule is based on the cost of a Medium Domestic Chassis: 500 x Quality. This comes out to 1,500, because it is Quality 3.

#4 Choose Options

Now you pick any Options you want your robot to have. You can pick any options allowed to your robot's Chassis, but cannot have more total points worth of Options than your Chassis allows (as given in step #2). Be sure to record all the Options you take, their point cost, and their Price Modifiers. You will need this information later. If you want to keep your costs down, you do not have to pick *any* Options, or very few of them. Not picking Options simplifies the robot creation process, so it is OK to skip this step entirely. However, don't forget to include any special circumstances from the Chassis, such as Option discounts and such. Unused Option points can be filled in later, just by re-Crafting it as if the difference in the old and new Price where the total cost of the robot.

Shazarak's mule is designed to carry loot, a lot of loot. So he decides to give it only Options that will increase the amount it can carry. The most obvious of these is Load Bearing (2 Options, +25% Price), which doubles it's Encumbrance limits. Since Encumbrance is based on Strength, Shazarak also gives some Extra Strength (2 per Options, +50% per Price), three overall (6 Options total, +150% Price total). Being wheeled instead of legged, it also has a -50% Price modifier without any Option points. This gives it a total of 8 Option points used, and a total Price modifier of +125%.

#5 Pick Computer Quality

Now you have to choose the Quality of the robot your computer uses as a brain. TABLE 7-1: ROBOTIC CHASSIS TEMPLATES gives you the type of computer the robot uses. The higher it's Quality the better it will perform, and thusly the higher your robot's combat abilities. A high Quality also indicates a tougher computer, very important if the robot suffers a Special Combat Damage effect. As with all Quality, however, the higher it is the more expensive it is! Table 5-15: Basic Gear lists all the computer prices. Record these two values. While a robot's computer brain does not affect it's Crafting time in any way, it does affect it's price and what it can run.

Shazarak doesn't think the robot needs much in the way of brain. After all, how hard is it to pick things up and carry them? He realizes that a clumsy mule will have to be left behind however, and decides to give his robot a Quality 2 computer to limit the number of times it says "oops". Medium Domestic Chassis use a Pocket computer, which has a Cost of Quality x Quality x 100. Thus his Quality 3 computer has a Cost of 400 credits.

#6 Pick Programs

Table 5-15: Basic Gear also lists all programs that a robot can run, as well as the cost of a Robotic OS. If you want your robot to do *anything at all*, it needs at least a Rating 1 Robotic OS! A Robot cannot run a Robotic OS of a rating higher than it's computer's Quality. A Robot's programs are limited by the Rating of it's OS. It cannot run any program that has a Rating higher than it's Robotic OS. It cannot have more than five times it's Computer's Quality rating in programs running simultaneously, and no more than 100 times it's Computer's Quality rating in programs total. Record how much all the programs it is loaded with cost, and their Ratings. This information will be handy later on. Keep in mind that you only have to buy the programs *once* if you are making multiple Robots.

Shazarak looks over the programs he can get. Off the bat he takes a Robotic OS 2 (400 credits), without it his robot won't be able to make much use of the Computer brain he gave it! He also decides to have a Security 1 [Rating 2] program (800 credits), to prevent somebody from taking it over by remote control. He ends up spending a total of 1,200 credits for programs.

#7 Determine Characteristics

Now you have to find out the ability scores of your robot, as well as it's secondary characteristics. It's Ability Scores, Saving Throws, Base Attack bonus, Speeds, Armor, and Running Time. It's Strength is based on it's Chassis type, as given on TABLE 7-1: ROBOTIC CHASSIS TEMPLATES. It's Dexterity equals the Quality of it's Computer, plus 8 for Domestic robots or plus 10 for Combat and PC robots. It's Intelligence, Wisdom, and Charisma all equal it's Robotic OS rating +5. It has a Base Attack bonus of +0 normally, but this becomes +1/2 Robotic OS rating if it has a Simple Weapons program, or it's Robotic OS rating if it has a Martial Weapons program. It's base Fortitude save equals the Quality of it's Chassis, but it gets no bonus for levels or Constitution (of which it has none). It's base Reflex save is based on the size of the Chassis (Diminutive is +4, Small is +3, Medium is +2, and Large is +1), modified by it's Dexterity modifier. It's base Will save equals the rating of it's Security program, if any, plus it's Wisdom modifier. It's Active Running Time equals it's Charge Capacity from TABLE 7-1: ROBOTIC CHASSIS TEMPLATES divided by it's Strength, in minutes. It's Speed characteristics are gained from it's entry on TABLE 7-1: ROBOTIC CHASSIS TEMPLATES. It has Armor based on it's Chassis from TABLE 7-1: ROBOTIC CHASSIS TEMPLATES, which serves as both Damage Reduction and Energy Resistance. It's Defensive Class is found the same as for a creature: 10 + Dexterity modifier + Size modifier. Unless it has a built-in weapon to use, or is wielding one by hand, robots have a Slam attack with a base damage depending on their size (1d3 for Diminutive, 1d4 for Small, 1d6 for Medium, 1d8 for Large). All of these are modified by particular Chassis selections and Options taken.

Shazarak takes a look at his mule's performance characteristics. It's Strength is 11 (8 for Medium Domestic Chassis +3 for Extra Strength Options). It's Dexterity is 10 (8 for Domestic robot +2 for Quality 2 Computer). It's Intelligence, Wisdom, and Charisma are all 7 (Robotic OS 2 +5). Having no weaponry programs, it ends up with a Base Attack of +0. It has a Fortitude save of +3 (Quality 3 Chassis), Reflex save of +2 (+2 for Medium Chassis, no Dexterity modifier), and a Will save of -1 (+1 from Security program -2 for Wisdom modifier). It's Active Running Time is 34 minutes (Charge Capacity 375 / 11 Strength). It has a ground-only Speed of 20 ft (30 ft for Chassis + 10 ft for Wheels). It's Armor is only 2 (all from Chassis). It's Defensive Class is 10 (base of 10 with no modifers). It has a Slam attack with a to-hit of +0, and that deals 1d6 damage. Overall it sucks for combat, but it is usable for basic cargo hauling over short distances.

#8 Determine Hit Points

Finding the Hit Points of a robot is a complicated formula, simplified for you here. Simply take the robot's total weight from TABLE 7-1: ROBOTIC CHASSIS TEMPLATES, then multiply it by the Quality of the Chassis. Now multiply that by a number based on the type of Chassis. Domestic robots use a multiplier of x0.5, PC robots use x1.5, and Combat robots use x4. If you are interested in knowing where these numbers come from, look at "Robot Hit Points" later on.

Shazarak's robot has 8 Options and is a Medium Domestic Chassis. This gives it a weight of 116 lbs (100 + twice it's Options). Multiplying this by the Domestic robot multiplier of x0.5, we see that it has 58 Hit Points! It may not be very agile or offensive, but it can sure take a beating.

#9 Determine Gear Level

All robots have a Gear Level, which represents their value in combat to their owner. This also equals their Challenge Rating if encountered outside the immediate area of their owner. To find this value, apply all the applicable factors from Table 7-3: Robot Gear Level. This will typically be a set value for the Chassis size, then modified for it's type and other factors. If the robot is using a weapon or armor, *add* the gear level of the armor and highest-GL weapon to the robot's Gear Level!

The robot that Shazarak is designing is Medium size (base GL of 4), a Domestic robot (-4), and Quality 3 (+1). This provides a total Gear Level of 1. It is basically a mobile wall.

#10 Determine Price

This part is slightly more complicated than the previous technology examples. The price of a robot comes in three parts: Robot Cost, Computer Cost, and Model Cost. Robot Cost is the price of the robot's Chassis, with it's Options, and is used to Craft the robot itself. This is found by determining what percentage of the Robot's Base Cost from step #3 that it's total Price mod for Options from step #4 represents, then adding this value to it's Base Cost. The Computer Cost is exactly what it sounds like, the value of the Computer brain for the robot from step #5. The Model Cost is the total of these two values, and represents how many credits it takes to buy an un-programmed robot of that type "off the shelf". Programs are listed separately, with their own cost, because you only need to buy a particular suite of programs for a robot *once*, and can then install many of the programs into several robots. Only Robotic OS, Simple Weapons, Martial Weapons, and any Strength or Dexterity based Skill Programs are model-specific.

Now comes the fun part, how much of a bite does this thing take from Shazarak's funds. The Base Cost of the Chassis is 1,500, with +125% for Options. This gives a Robot Cost of 2,875 credits (1,375 + 1,500). It's Quality 2 Pocket computer costs 400 credits (Quality 2 x Quality 2 x 100). So it's total Model Cost is 3,275 credits (2,875 + 400). It is running 1,200 credits in computer programs, only 400 credits of which is model-specific (the Robotic OS 2 program).

Chassis

This governs what type of robot this is, domestic, combat, or PC. These then determine the options it can later take, as well as how many points worth of options it can have, max.

TABLE 7-1: ROBOTIC CHASSIS TEMPLATES

Chassis	Base Cost	Option Max	Armor	Str	Speed	Computer	Charge Capacity	Weight
Domestic, Diminutive	100 x Quality	Quality/2	0	4	20 ft	Datasheet	Quality x 25	2
Domestic, Small	250 x Quality	Quality	1	6	20 ft	Pocket	Quality x 60	25 +Options
Domestic, Medium	500 x Quality	5 + Quality	2	8	20 ft	Pocket	Quality x 125	100 + (Options x2)
Domestic, Large	1000 x Quality	10 + Quality	5	12	20 ft	Case	Quality x 250	250 + (Options x3)
Combat, Diminutive	250 x Quality	Quality/2	1	6	30 ft	Datasheet	Quality x 60	3 + (Options)
Combat, Small	500 x Quality	Quality	2	10	30 ft	Pocket	Quality x 125	30 + (Options x2)
Combat, Medium	1000 x Quality	5 + Quality	5	14	30 ft	Pocket	Quality x 250	150 + (Options x3)
Combat, Large	2500 x Quality	10 + Quality	10	18	30 ft	Pocket	Quality x 600	500 + (Options x5)
PC, Diminutive	500 x Quality	Quality	1	4	30 ft	Datasheet	Quality x 60	2 + (1/2 Options)
PC, Small	1000 x Quality	5 + Quality	2	8	30 ft	Pocket	Quality x 125	25 + Options
PC, Medium	2500 x Quality	10 + Quality	5	10	30 ft	Pocket	Quality x 250	100 + (Options x2)
PC, Large	5000 x Quality	20 + Quality	10	12	30 ft	Case	Quality x 600	250 + (Options x3)

Base Cost: How much the robotic Chassis costs, determined by it's Quality.

Option Max: The maximum amount of Options the robot can have, according to it's Quality.

Armor: Much like Hardness, this acts as both Damage Reduction and Energy Resistance for the robot.

Str: How strong a base-line robot of that Chassis type is.

Speed: How fast the robot moves on the ground. Depending on Chassis sub-type selections and Options, this can vary or even new movement modes be gained.

Computer: What type of computer brain the robot uses. Keep in mind that the robot's computer brain has no Hardness of it's own, the robot itself is it's case.

Charge Capacity: How many points of Charge the robot's internal Charge Pack can contain. This Charge Pack is considered to be the same Quality as the robot's Chassis. Divided by the robot's final Strength, this becomes the Active Running Time of the robot in minutes.

Weight: How much the robot weights, which has a direct relationship with how many Hit Points it has. A robot's weight can go up or down as Options are added and removed.

Chassis Size: How big the robot is. This has all the same modifications as for creatures, except for Hit Poitns and Death Level.

Domestic Chassis: Desinged to serve a pedestrian role such as cleaning or basic manufacturing, these robots are both cheap and flimsy. they cannot have as many options as others, but that is usually OK given how little they are required to do. They can be designed with tracks, legs, or wheels for gound movement, and always have two manipulative arms in order to perform their designed tasks.

Legs: No modifications to price or abilities.

Tracks: -25% Price as if it where an Option, +5 ft to it's ground Speed, but has a -5 penalty to it's Climb and Jump skill checks.

Wheels: -50% Price as if it where an Option, +10 ft to it's ground Speed, but has a -8 penalty to it's Climb and Jump skill checks.

Combat Chassis: These machines are designed for one thing only: to slughter other beings. They are generally humanoid in appearance, at least in overall proportions and design, so that they can use humanoid devices and weapons. While they often hae a nice array of combat options, it is their sheer toughness that makes them so deadly. A typical Combat Chassis robot can have around 100 times the hit points of an equal-sized living creature!

Flight-Only : This Combat robot must have a Flight Option, it is totally immobile otherwise. It has no limbs usable as such, unless it also has the Extra Limbs Option, and must rely on built-in weaponry for attacks. To make up for this, it is very energy-efficient, having double the regular Active Running Time. It also has double the Speed it would have normally (after the Extra Speed Option is factored in). It cannot make Climb or Jump checks, unless given limbs to do so.

Tracks: -25% Price as if it where an Option, +5 ft to it's ground Speed, but has a -5 penalty to it's Climb and Jump skill checks.

PC Chassis: These chassis are almost indistinguishable from living creatures, either a player character race, or a animal of some sort. The PC in the name does not stand for Player character, but Potential Creature. While it does not look *exactly* like a creature, being deiscernibly mechanical in nature, it comes close enough in general form to use any non-biological device that type of creature could use. They typically are four-limbed, with characteristics varying according to thier limb arrangements. Limbs must be arranged in pairs, otherwise the robot becomes unstable and cannot move in even the most remotely coordinated fashion. Each type of limb allocation is listed below.

Arms: A single set of arms provides the robot with humanoid manipulative and combat abilities. Each additional set also provides them with a +2 bonus to thier Climb skill, and Grapple checks. Robots have no off hand, no matter how many arms they have or are using in combat.

Fins: A single set of fins allows the robot to move it's full Speed in water. Each additional set increses it's water-based Speed by +50%.

Legs: A single set of legs gives the robot it's full Speed on land. Each addional set also provides them with a +2 bonus to their Balance and Jump skills, as well as reduces the cost for one Extra Speed Option to 1 Option point and +25% Price but only if it is for land-based movement. Having at least two sets of legs gives it the Load Bearing Option for free (can carry twice as much as it's Strength indicates). Note that this represents FULL legs, similar to those of a mamal. A creture can have multiple spindly legs, that it takes several of to add up to a set of full legs (such as a Necrol Spider).

Wings: Each set of wings provides a cumulative 1 Option point and 15% discount on the Flight Options. The total cost f the Flight Option taken cannot be lower than 1 Option point and 5% Price, no matter how many sets of wings the robot has. This has no effect on the Flight (space) Option.

Options

TABLE 7-2: ROBOTIC OPTIONS

Option	Points	Price Mod
Built-in Device	1 per lb	+ (Device x 2)
Disguise (basic)	2	+25%
Disguise (total)	5	+100%
Extra Dexterity	1 per	+25% per
Extra Speed	2 per	+50% per
Extra Strength	2 per	+50% per
Flight (poor)	2	+25%
Flight (average)	3	+50%
Flight (good)	5	+100%
Flight (perfect)	10	+200%
Flight (space)	15	+250%
Greater Charge	1 per lb	+ (Charge)
Heavier Armor	1 per	+10% per
Load Bearing	2	+25%
More Limbs	2 per	+25% per
Tough Frame	10	+150%

Built-In Device: A type of device is built into the robot. This could be a weapon, piece of personal gear, or even a vehicle's Power System (a very popular choice). Every pound of the device's weight, or part thereof, costs an Option point. Unlike most other Options, this Option does NOT add a percentage modifier to the robot's Price. Instead, you add double the Built-In Device's Cost to the Robot Cost, *after* Price mode from Options is factored in. This Option can be taken multiple times (1 per lb Options, +(Device's Price x 2) to final Price).

Disguise (basic): The robot is covered in a fake replica of fur, scales, feathers, or leathery hide. It's sensors are disguised as eyes and other sensory organs. It can be noticed as fake on a successful Spot check with a DC of 15. Only PC Chassis robots can have this Option (2 Options, +25% Price).

Disguise (total): The robot's covering is more detailed, and includes micro-muscles to give it realistic movements. it also has several internal systems designed to mimic blood flow, a heartbeat, breathing, and a living creature's body temperature. It can be noticed as fake on a successful Spot check with a DC of 20 + Quality. Only PC Chassis robots can have this Option (5 Options, +100% Price).

Extra Dexterity: Small fuzzy-logic processors and signal refiners make the robot's movements more sure and coordinated. This Option can be taken multiple times. Each time it is taken the robot gets +1 to Dexterity (1 per Options, +25% per Price).

Extra Speed: A more streamlined design and efficient motive system makes the robot faster. This Option can be taken multiple times. Each time it is taken adds +10 ft to the robot's movement, allocated to *one* mode of movement (ground, flight, or swim) (2 per Options, +50% per Price).

Extra Strength: Heavier servo-muscles allow the robot to carry more weight and exert more force. This Option can be taken multiple times. Each time it is taken adds +1 to the robot's Strength (2 per Options, +50% per Price).

Flight (poor): The robot can fly in an atmosphere, much like a flying vehicle. It's flying Speed is equal to it's base Speed for it's Chassis, plus any extra gained from the Extra Speed Option that has been allocated to flight. It's Maneuverability when flying is 45/20 ft, just like a vehicle, but is not adjusted for the robot's size (2 Options, +25% Price).

Flight (average): The robot can fly in an atmosphere, much like a flying vehicle. It's flying Speed is equal to it's base Speed for it's Chassis, plus any extra gained from the Extra Speed Option that has been allocated to flight. It's Maneuverability when flying is 45/10 ft, just like a vehicle, but is not adjusted for the robot's size (3 Options, +50% Price).

Flight (good): The robot can fly in an atmosphere, much like a flying vehicle. It's flying Speed is equal to it's base Speed for it's Chassis, plus any extra gained from the Extra Speed Option that has been allocated to flight. It's Maneuverability when flying is 45/5 ft, just like a vehicle, but is not adjusted for the robot's size (5 Options, +100% Price).

Flight (perfect): The robot can fly in an atmosphere, much like a flying vehicle. It's flying Speed is equal to it's base Speed for it's Chassis, plus any extra gained from the Extra Speed Option that has been allocated to flight. It's Maneuverability when flying is Perfect, just like a vehicle, but is not adjusted for the robot's size (10 Options, +200% Price).

Flight (Space): The robot can fly in an atmosphere or in space, much like a flying vehicle. It's flying Speed is equal to it's base Speed for it's Chassis, plus any extra gained from the Extra Speed Option that has been allocated to flight. It's Maneuverability when flying in an atmosphere is 45/5 ft, and 45/50 ft in space, just like a vehicle, but is not adjusted for the robot's size (15 Options, +250% Price).

Greater Charge: An auxiliary Charge Pack is built into the robot. This can be of any Quality up to that of the robot's Chassis. Every pound of the device's weight, or part thereof, costs an Option point. Unlike most other Options, this Option does NOT add a percentage modifier to the robot's Price. Instead, you add the Charge Pack's Cost to the Robot Cost, *after* Price mode from Options is factored in. This Option can be taken multiple times (1 per lb Options, + (Charge Pack Cost) to final Price).

Heavier Armor: Thicker insulation, and heavier plating results in a tougher robot. This Option can be taken multiple times. Each time it is taken, add +1 to the robot's Armor rating (1 per Options, +10% per Price).

Load Bearing: The robot can carry far more than it's Strength indicates. It's Light Encumbrance Limit equals it's Strength x 8, and it loses a point of Dexterity every Strength x 2 lbs or part thereof after that (2 Options, +25% Price).

More Limbs: The robot has an additional set of limbs, whether they are legs, wings, or arms is up to the designer. For Combat and Domestic robot Chassis, they can only be arms. This Options can be taken multiple times. each time it is taken provides the robot with two extra limbs (2 per Options, +25% per Price).

Tough Frame: The robot is constructed with heavier and more resilient materials for it's internal framework, making it allot tougher. This Option can be taken multiple times. Each time it is taken increases the effective Quality of the robot's Chassis by +1, to a maximum total Quality of double it's original Quality, but only for purposes of calculating Hit Points (10 Options, +150% Options).

Robotic Characteristics

Strength: Based on Chassis size and type (see table above).

Dexterity: Base of 8 for Domestic robots, 10 for Combat and PC robots, and then adds the Complexity of the Computer.

Constitution: Has no Constitution score, Hit Points are based on weight and Chassis type.

Intelligence: Equals the Robotic OS rating +5.

Wisdom: Equals the Robotic OS rating +5.

Charisma: Equals the Robotic OS rating +5.

Base Attack: +0 if the robot has neither a Simple Weapons or Martial Weapons program. It equals 1/2 their Robotic OS rating if they have only a Simple Weapons program, or their full Robotic OS rating if they have a Martial Weapons program.

Base Fortitude Save: Equal to their Quality.

Base Reflex Save: Based on the size of their Chassis. Diminutive is +4, Small is +3, Medium is +2, and Large is +1.

Base Will Save: Equals the rating of their Security program, otherwise +0.

Active Running Time: A robot can be activity for a number of minutes equal its Charge Capacity divided by its Strength. If inactive, it can operate for 100 times as long. Once its Charge Capacity runs out, the robot can still retain Computer functions for the regular operating time of the Computer, before the Computer's back-up power supply runs out.

Robot Creature Abilities

Robots all share the following list of traits. These traits follow the same rules as for creatures.

Darkvision: Robots have more wide-ranging sensors than regular creatures, which gives them Darkvision out to a range of 10 ft x Chassis Quality.

EM Vulnerability: Robots are machines, not creatures. EM weapons and effects treat them as such.

Low-Light Vision: Robots can see twice as far in any lighting condition.

Nonliving: Robots have no real biology, despite what they may look like. This means they are immune to all poisons, diseases, and any agent designed to work only when a biological being or substance is involved. They also have no Vitality, no Constitution score, and only make Fortitude saves against effects that also would require one from an inanimate object.

Telepathic Immunity: Robots are machines, not creatures. This makes them immune to Telepathy.

Robot Hit Points

Robots are High Complexity devices, composed primarily of materials ranging from basic plastics on up to high-strength metals. This means their hit points equals their weight in lbs x Quality x material hp (determined by Chassis type), then divided by 10 (High Complexity device). This formula simplified is WT x Quality x 0.5 (sculpted rigid and flexible plastics) for Domestic robots, WT x Quality x 1.5 (basic metals and high-strength plastic) for PC robots, and WT x Quality x 4 (composite ceramics and steel alloys) for Combat robots.

Robot Gear Level

Robots have Gear Level just like other combat-usable gear. This value is also the robot's Challenge Rating. The lowest this can be is 1. Use the table below to find the robot's Gear Level. Keep in mind that the highest Gear Level of any weapons it is using is added to the robot's Gear Level, even if it is built-in.

TABLE 7-3: ROBOT GEAR LEVEL

Robot	Level
Diminutive Chassis	0
Tiny Chassis	1
Small Chassis	2
Medium Chassis	4
Large Chassis	6
Domestic Robot	-4
PC Robot	-2
Combat Robot	+0
Quality	+1/2 Quality
Simple Weapons program	+2
Martial Weapons program	+4
Using a Weapon	+Weapon's GL
Wearing Armor	+Armor's GL

For Example: RoboJeeves is a butler-style robot. He is built on a Quality 3 Medium Domestic Chassis, has a Quality 3 computer, with the +3 Dexterity option (total Dexterity of 14). His weight is 106 [100 + (3 x 2)]. So his hit points are (106 x 3) x 0.5, or a total of 159. RoboJeves has Gear level/Challenge Rating equal to 1 (Medium Chassis 4, Domestic Robot -4, Quality +1). Even robotic house servants are pretty damn tough, although they might not be worth much in a fight.

Crafting

The DC to craft a robot equals 25 + the robot's Chassis Quality. The builder must either Craft a computer brain separately, or strip a regular computer to build it into the robot. When Crafting or Repairing a robot, use only the robot's Chassis Price, which is the base cost of the robot's Chassis and it's extra cost from it's Chassis Options added together. If repairing its Computer, instead just use the price of the Computer.

Example Robots

DeathTek Marauder

This machine is designed to infiltrate enemy positions, and spend days on end hunting lone figures or small groups, executing them quickly and displaying their bodies in a horrific manner. The built-in fission power plant is used as a back-up device, only the constant supervision of the robot's computer keeps it from detonating!

Chassis: Quality 5 Combat, Medium
Options (10 Max, 10 Used): Built- In Device (Vehicle Quality 1 Fission Power Plant Charge 1 [Direct Feed]) [4], Built-In Device (Quality 10 Dagger [1d4+7 piercing damage] x2) [1], Heavier Armor 5 [5]
Weight: 180
Computer: Quality 4 Pocket
Programs (4,300 credits): Robotic OS 5, Robotic Hide 2 ranks (+4 total) [4], Robotic Move Silently 2 ranks (+4 total) [4], Security 2 [4], Simple Weapons [2]
Str: 14 **Dex:** 14 **Int:** 9 **Wis:** 9 **Cha:** 9
Base Attack: +2
Attacks: Dagger +4 (1d4+7), or Dagger -2/-2 (1d4+7)
Fort: +5 **Ref:** +4 **Will:** +1
Speed: 30 ft
Armor: 5
Defensive Class: 12 (+2 Dex)
Hit Points: 3,600
Active Running Time: 1,250 Charge, 89 minutes (1 year on the Fission Plant)
Gear Level/Challenge Rating: 13
Robot Cost: 6,270
Computer Cost: 1,600
Model Cost: 7,870

Cloud Hunter

This small robot is intended for tactical use as a sniper. It is meant to be deployed before battle is engaged, and fires on whatever it has been programmed to recognize as an enemy, typically living creatures and robots that it has not been programmed to recognize as friendly. When it runs out of shots, it will automatically fly back to it's owner for a fresh charge pack.

Chassis: Quality 4 Combat (flight-only), Small
Options (4 Max, Used): Built-In Device (Laser Gun, Range 100 ft, Ammo 15, Autofire) [2], Flight (poor) [2]
Weight: 38 lbs
Computer: Quality 5 Pocket
Programs (8,550 credits): Martial Weapons [5], Robotic OS 5, Robotic Spot 2 ranks (+2 total) [4], Security 2 [4], Targeting [5]
Str: 10 **Dex:** 15 **Int:** 10 **Wis:** 10 **Cha:** 10
Base Attack: +5
Attacks: Laser Gun +13 (2d4 fire)
Fort: +4 **Ref:** +5 **Will:** +2
Speed: Fly 60 ft
Armor: 2
Defensive Class: 13 (+1 size, +2 Dex)
Hit Points: 152
Active Running Time: 100 minutes (1 hour 40 minutes)
Gear Level/Challenge Rating: 13
Robot Cost: 2,600
Computer Cost: 2,500
Model Cost: 5,100

Neo-Horse
This robot is designed to assist in the infiltration of low-tech worlds by high-tech agents. It is used to travel into low-tech settlements, mimicking a real horse in almost every fashion so it's rider's off-planet origin is not immediately apparent. Some versions use much more expensive, but longer lasting, fusion or fission power cells in place of he extra Charge capacity.
Chassis: Quality 2 PC (2 leg sets), Large
Options (22 Max, 22 Used): Disguise (total) DC 22 [5], Extra Speed x3 [5], Greater Charge (2,400 point Quality 2 Charge Pack) [12], Load Bearing [0]
Weight: 316 lbs
Computer: Quality 1 Case
Programs (100 credits): Robotic OS 1
Str: 12 **Dex:** 11 **Int:** 6 **Wis:** 6 **Cha:** 6
Base Attack: +0
Attacks: Slam 1d8+1
Fort: +2 **Ref:** +1 **Will:** -2
Speed: 30 ft
Armor: 10
Defensive Class: 10
Hit Points: 474
Active Running Time: 300 minutes (5 hours)
Gear Level/Challenge Rating: 5
Robot Cost: 34,900
Computer Cost: 50
Model Cost: 34,950

RoboJeeves
This robot is designed for basic household maintenance, taking the place of a chef, butler, and maid. It works tirelessly for it's owner, and stays plugged into building power as much as possible to better facilitate round-the-clock service.
Chassis: Quality 3 Domestic (legs), Medium
Options (8 Max, Used): Extra Dexterity x3 [3]
+75%
Weight: 106
Computer: Quality 3 Pocket
Programs (300 credits): Robotic OS 3
Total Cost:
Str: 8 **Dex:** 14 **Int:** 8 **Wis:** 8 **Cha:** 8
Base Attack: +0
Attacks: Slam +2 (1d6-1)
Fort: +3 **Ref:** +4 **Will:** -1
Speed: 20 ft
Armor: 2
Defensive Class: 12 (+2 Dex)
Hit Points: 159
Active Running Time: 46 minutes
Gear Level/Challenge Rating: 1
Robot Cost: 2,625
Computer Cost: 900
Model Cost: 3,525

Shazarak's Mule
This robot is intended for on purpose only: to carry heavy things from dangerous places. It is mainly designed for salvage, and has very little capacity to travel over difficult terrain, although hallways and rooms pose no problem for it.
Chassis: Domestic (wheels), Medium
Options (8 Max, 8 Used): Wheeled [0], Extra Strength x3 [6], Load Bearing [2]
Weight: 116
Computer: Quality 2 Pocket
Programs (1,200 credits): Robotic OS 2, Security 1 [2]
Str: 11 **Dex:** 10 **Int:** 7 **Wis:** 7 **Cha:** 7
Base Attack: +0
Fort: +3 **Ref:** +2 **Will:** -1
Speed: 30 ft.
Armor: 2
Defensive Class: 10
Hit Points: 58
Active Running Time: 34 minutes
Gear Level/Challenge Rating: 1
Robot Cost: 2,875
Computer Cost: 400
Model Cost: 3,275

NANOTECHNOLOGY

"Nanotechnology" is a term used to refer to machines built not with electronic circuits and charge packs, but with *molecules!* Nanotechnology is used in the construction and operation of most devices of high degrees of complexity.

In the Dead Stars system, nanotech is typically used to refer to the microscopic machines themselves, rather than devices that depend on them for some of their functions. This type of nanotech functions as a miniscule robot, performing a programmed task under it's own power. While many of their functions and design are similar to macro-scale robots, the problems and abilities that machinery at the nano-meter scale possess places them in an entirely *different* discipline.

This section is devoted to these microscopic robots. It covers everything from their design and construction, to customization and particular applications.

Step-by-Step Nanite Design

Nanites are some of the most involved things to design, mixing equal amounts of science and art. Most of their difficulty comes from determining exactly *how* the nanite is supposed to do what it does! As with all other types of technology you choose a Template from Table 7-4: Nanotech Templates, pick a Quality for it from 1 to 10, then assign any Options you want that it can handle. More expensive, and higher-Quality, nanites can have more points worth of Options. The more Options a nanite has the more it costs, but it is most likely necessary to get the effect you want! To help you through this process, I'm going to go over nanite design a step at a time, complete with an example nanite we will design together. The examples are below each step, in italics. (tired of this yet?)

Do not be afraid to go back one or more steps so you can get something you forgot or need.

When determining the cost and Lifespan of nanites always round fractions down after applying any Options.

Nanite Design Steps

#1 Specify what the Nanite Does
#2 Choose Nanotech Template
#3 Choose Quality
#4 Determine Base Cost
#5 Choose Function Options
#6 Choose Movement Options
#7 Choose Programming Options
#8 Assess Options
#9 Determine Characteristics
#10 Determine Price
#11 Determine Gear Level

#1 Specify what the Nanite Does

What *exactly* do your nanites do, and how do they do it? You don't need to have a detailed chemical/mechanical breakdown of their exact functions, but a plausible reason for what they do and how they do it ***is*** required. if they break the technology conventions that you are supposed to work within, as determined by your Game Master, then it is time to reexamine them and try something else. An example of a *good* explanation might be that it alters neurotransmitter chemistry to cause a hypnotic state, enabling the creature infected with them to be easily influenced. A (very) bad example of an explanation would be that they use funky-chicken rays to make somebody believe they have wings and can fly. Where the line between the two is, is pretty much up to the Game Master.

Shazarak wants a way to speed up the amount of time it takes to salvage derelict ships and space stations. He decides to try using nanotech to solve the problem. He has an idea for a nanite that will fly around an enclosed environment hunting down doped silicon chips that are the hallmark of technological devices, and send out a homing signal when they find it. Then his friends and himself can go through the station, collecting the strongest sources of nanite beacons (and not incidentally, recollecting the nanites for future use)!

#2 Choose Nanotech Template

As with the other examples of technology in the Dead Stars system, the Template is the basis for all of a nanite's characteristics. Unlike every other example technology, there is very little difference between nanotech Templates. Honestly, the only really noticeable difference between the templates, other than their costs, is how many Options they can have and their Lifespan. Unlike all other technologies in Dead Stars, nanites cannot later be rebuilt to include new Options. Due to this it is common practice for nanites to have the absolute lowest-cost possible Template for their Options. Don't be afraid to go back several steps to alter your nanite Template if it becomes apparent you need to later on.

The "Treasure Hunter" nanites are going to need to be capable of allot, which will make them pretty expensive. They are going to be so costly, that Shazarak will want to recover as many as possible, which will make them MORE expensive yet! To accommodate all these abilities, he decides to go for a Macroscopic Supermolecule Assembly ((1 + Quality) x 2 Options, 1d6 x 60 x Quality minute Lifespan, 500 x Quality Base Cost).

#3 Choose Quality

This step goes hand-in-hand with step #2, the higher your Quality the more Options and greater Lifespan the nanites have, but the more expensive they become. Don't be afraid to back-track to here either.

Shazarak decides on a Quality of 6. That gives him a base Lifespan of 1d6 x 360 minutes, and 14 Options maximum.

#4 Determine Base Cost

Using the formula for your Template's Base Cost, find and record it. You will need this value later. Keep in mind that if you back-track to alter your Template of Quality, you need to alter this as well.

The nanites have a Quality of 6, and the Supermolecule Macroscopic Assembly Template has a Base Cost of 500 x Quality. That gives an actual Base Cost of 3,000.

#5 Choose Function Options

Taking a look at TABLE 7-5: NANOTECH FUNCTION OPTIONS, pick the collection of functions necessary to describe what the nanites do, and how they do it. If you cannot describe it using them, then it cannot be done. Movement and Programming are handled later. Don't forget to record the number of Option points each function uses, it's Price Mod, and it's Lifespan modification (if any).

The treasure hunters need to be able to distinguish between doped silicon, and other materials. To do this it will need Chemical detection for silicon (1 Option, +10% Price), and Simplistic Chemical Analysis (1 Option, +25% Price, -10% Lifespan). In order to use Simplistic Material Analysis, it also needs a single Rating point of Data Storage (1 Option, +10% Price). When they find it, they need to be able to emit a radio signal for a homing beacon, which requires Broadcast Transmission (2 Options, +25% Price, -50% Lifespan). In order to operate for a long duration, Shazarak decides to make them Rechargeable from x-ray radiation (2 Options, +100% Price). In order to do so, they need to have Energy Sense for x-rays (1 Option, +25% Price). Shazarak doesn't want to have to scrape them out of an entire facility by hand, the whole point of these things is to save *time after all. So he decides to design them to return to an emitter broadcasting a radio signal on a specific frequency, a function that will require another Energy Sense but for radio waves (1 Option, +25% Price). The total of all of these Options is 9 Option points, +220% Price mod, and -50% Lifespan.*

#6 Choose Movement Options

All nanites need to have some sort of movement rating, even if it is just standing still. In order to carry out their intended purpose, many nanites will be able to move themselves. Moving itself takes a huge amount of energy for a device so small. it may not seem like much, but a simple 10 ft distance at the regular scale appears to be *miles* at the nanite scale! A nanite only needs one Movement Option, which are given on TABLE 7-6: NANOTECH MOVEMENT OPTIONS. Don't forget to record the points, Price mod, and Lifespan modification of the Option you take.

The faster they travel, the more time they save. So Shazarak has the nanites with Medium Range movement (4 Options, +100% Price, -40% Lifespan), since Long Range would use up all of it's Lifespan and then some.

#7 Choose Programming Options

Now the little buggers need to be designed with a very basic concept of what they are to do. This stage is mostly just clarification, but anything more complex than a simple If/Then statement will require some extra effort and space within the nanite.

Shazarak's treasure hunters need to be able to move around in straight-as-possible lines, so they need Predetermined Direction (no modifiers). When they find doped silicon, they need to stop and begin transmitting a radio signal, a simple If/Then ability (no modifiers). They need to fly to any radio-transmitter that emits the homing signal, so they will need to have Altered Direction to accommodate the increased programming complexity (1 Option, +0% Price).

#8 Assess Options

This step is easy. Simply take all the Option points from steps #5, #6, and #7 and add them together. Then take the Options Max for the Template from step #3. If the total of all the Options is higher than the Template allows, either remove or reduce Options or get another Template. You might want to keep the Template you have, in order to have a higher Lifespan. Also add together the total Price mods for all of these Options, and record it for later use.

The treasure hunters have 9 points of Function Options, 4 points of Movement Options, and 1 point of Programming Options. This totals out to 14 Options points. The Template they have will allow up to 14 points worth of Options, so no problem there. They have +220% Price from Function Options, +100% Price from Movement Options, and nothing from Programming Options. This totals out to +320% Price.

#9 Determine Characteristics

Now you have to find out how well the little buggers perform. To find their Lifespan, you take the Lifespan listed for their Template from TABLE 7-4: NANOTECH TEMPLATES, and apply the percentage modifier of all the Lifespan alterations from the Options, to the duration. If the lifespan modifier total is greater than -100%, then you will need to drop Options until it is at least -100%. At -100% the nanites have a Lifespan of the rolled variable, in minutes x Quality, divided by 100. Convert to combat rounds instead of minutes if necessary to get a whole number, but then round down (to a minimum of 1d6 rounds). Any checks they might have to make are all based on Quality. If they deal or fix damage, they do an amount equal to their Quality.

Shazarak's nanites have a total Lifespan modifier of -100%, -60% from Function Options and -40% from Movement Options. This means they will only have a Lifespan of (1d6 x 60 x Quality of 6)/ 100 minutes. This is a total of 1d6 x 3.6 minutes, or 1d6 x 36 rounds. When searching for doped silicon items, they use a Search skill total equal to their Quality of 6. It takes them 10 minutes to recharge, and they can move their maximum distance of 60 ft between recharging cycles. This means that once introduced to an environment, they will spread at a rate of approximately 6 ft per minute until they have either all found doped silicon, or reached the limits of their

environment. Not very handy for once you get on board, but perfectly viable to put into a cheap rocket and fire it ahead of you before you reach the derelict.

#10 Determine Price

Price is fairly easy, and something you have seen done several times by now. Take the value for Base Cost from step #4, and apply the Price percentage from step #8 to it. Then add the Base Cost to this total to find the final Price. Note that this is the cost of an entire colony of nanites, approximately 10,000 little buggers all of which form a small ball the size of a speck of grit. Manufacturing methods do not allow for the creation of fewer nanites without INCREASING the costs in tools and flawed specimens.

The treasure hunters have a Base Cost of 3,000 and a Price mod of +320%. 320% of 3,000 is 9,600. Adding the Base Cost to that, we end up with a total Price of 12,600 credits.

#11 Determine Gear Level

To find the Gear Level of a nanite colony you divide the nanite's Price by 1,000, rounding down. Only nanites that serve some combat function have a gear level.

Shazarak's treasure hunter nanite colony have squat for combat utility, they do not deal, prevent or heal damage or do anything else useful in a fight. This means they have NO Gear Level. If they did, it would be 12 (12,600/1,000).

Nanotech Templates

This determines the base amount of Option points the nanite colony will have, it's Base Lifespan, and their base price. Lifespan given below is multiplied by the nanite's Quality.

TABLE 7-4: NANOTECH TEMPLATES

Size	Options	Lifespan	Base Cost
Macromolecule	Quality	1d6 x Quality minutes	50 x Quality
Cohesive Multimolecule	1+ Quality	1d6 x 10 x Quality minutes	100 x Quality
Constructed Supermolecule Construct	Quality x2	2d6 x 10 x Quality minutes	250 x Quality
Macroscopic Supermolecule Assembly	(1+ Quality) x2	1d6 x 60 x Quality minutes	500 x Quality

Macromolecule: A molecule contracted on a gigantic scale, molecularly speaking. Chemical alterations and fluctuations in electron orbits are used to store information, perform functions, and move. These nanites are so small that most of their functions are handled on a purely chemical basis, they are *almost* viruses!

Cohesive Multimolecule: Larger than a macromolecule, this is actually an assembly of smaller specialty-purpose molecules that are held together by interlinking construction. This construction gives it more versatility than a macromolecule, but makes it harder to create. These nanites are much smaller than a red blood cell.

Constructed Supermolecule Construct: This is a collection of specialty-purpose molecules put together like miniature building blocks, to create the desired nano-machine. While individual molecules in the overall construction are smaller than a Macromolecule, the total form is larger than even a cohesive multimolecule. These nanites are only a little bigger than a red blood cell, or just about the same size.

Macroscopic Supermolecule Assembly: Similar in overall concept to a cohesive multimolecule nanite, this nanomachine is built using interlocking macromolecules. The end result is a nanite much bigger than a typical red blood cell, and capable of a dizzying array of functions.

Function Options

Simply put, what the little bugger is supposed to *do*. A nanite can have several functions, and it is often necessary to have several in order to get it to perform it's required purpose. The effects of many functions requires GM's discretion about how they would work in game terms. To help GMs determine this, several nanomachines have been included in this section with how they were created using this system.

TABLE 7-5: NANOTECH FUNCTION OPTIONS

Function	Option Points	Price Modifier	Lifespan
Ablation	1	+50%	---
Broadcast Transmission	2	+25%	-50%
Chemical Alteration	1	+10%	-10%
Chemical Detection	1	+10%	---
Cohesion, Minor	2	+100%	-25%
Cohesion, Major	3	+200%	-50%
Data Storage	1 x Rating	+10% x Rating	---
Energy Sense	1	+25%	---
Expansion	3	+100%	-25%
Marker	1	+10%	---
Material Analysis	---	---	---
" Simplistic	1	+25%	-10%
" Moderate	2	+50%	-10%
" High	3	+100%	-10%
Molecular Alteration	3	+50%	-20%
Rechargeable	2	+100%	---
Reproduction	3	+100%	---

Ablation: The nanite sacrifices itself in order to block or prevent something. In order to use this function, the nanite needs a means of *detecting* what it is to block or prevent. This means that it needs one of the following functions as well: Chemical Detection, Energy Sense, or Material Analysis (1 Option, +50% Price).

Broadcast Transmission: The nanite broadcasts some form of signal or encoded information in an a portion of the EM spectrum. This information might be something it has recorded, observed, or just serve to signal it's position (2 Options, +25% Price, -50% Lifespan).

Chemical Alteration: The nanite alters one chemical compound into another, either by combining two elements or separating them. An example might include a nanite that breaks water down into hydrogen and oxygen. To perform this function, it also needs the Chemical Detection or Material Analysis functions (1 Option, +10% Price, -10% Lifespan).

Chemical Detection: Whenever the nanite detects a particular chemical compound or element, it triggers another function. A nanite can have this function multiple times, but each time only causes it to be able to detect *one* chemical (1 Option, +10% Price).

Cohesion: Some pre-programmed condition causes the nanites to recombine into a larger configuration. This function comes it two models: Minor and Major. Minor recombination only allow for general shapes such as a single geometric pattern, Major ones allow for the shapes to be combinations of many patters. When the nanite's power winds down, the shape dissolves. The nanites must have the Data Storage function to also have this function (*Minor* 2 Options, +100% Price, -25% Lifespan; *Major* 3 Options, +200% Price, -50% Lifespan).

Data Storage: Each time this function is taken, the nanites can hold up to one Rating of information in a chemical form. the most typical is the use of alternating Oxygen and Iron atoms to mimic the "1" and "0" of computer information, but any similar combination can be used (1 x Rating Options, +10% x Rating Price).

Energy Sense: The nanite can detect the presence of one type of EM energy at a particular frequency, or range of frequencies. If it must distinguish between frequencies or types of energy, this function must be chosen for each such distinction. It can also distinguish between intensities of that form of energy as well (1 Option, +25% Price).

Expansion: The nanite is "folded" in on itself in one way or another. With this option it can "unfold" itself to up to 10,000 times it's original size, catching and containing air as it does so. A particular nanite colony can assemble into a shape up to 1 cubic foot (10 lbs) for every point of Quality it has (3 Option, +100% Price, -25% Lifespan).

Marker: The nanite serves as a distinct marker, either chemically or by transmitting information when a particular EM wave is directed to it. In essence, it is a microscopic bar-code. Even after the nanite runs out of power, it's marker status can be easily detected by a DC 15 Craft (nanotech) check when using nanotech tools or a scanner (adding the rating to the check). Even un-powered marker nanites can send out their marking transmission when they receive the appropriate EM signal, powering it off the energy from the received signal. A transmitting Marker function requires the Energy Sense function as well (1 Option, +10% Price).

Material Analysis: The nanite is capable of performing a detailed analysis of a material of some type that it has been programmed with, and acting according to it's programming with another included function. This is often used to in-depth analyze a substance, and then transmit the found data to the user by means of the Broadcast Transmission function. The complexity of what it was made to analyze indicates the number of Rating information it needs to contain with the Data Storage function: Simplistic (basic molecular compounds) is one point, Moderate (advanced materials such as plastics or DNA) is three points, and High (such as developed cells and other nanomachines) is five points (*Simplistic* 1 Option, +25% Price, -10% Lifespan; *Moderate* 2 Options, +50% Price, -10% Lifespan; *High* 3 Options, +100% Price, -10% Lifespan;).

Molecular Alteration: More involved than simple chemical alteration, the nanite can take several elements and combine them into a complex molecule. This allows it to reconfigure virtually anything into anything else, so long as it is in accordance with it's other functions, is made from the same materials, and it is programmed to do so. This requires the Material Analysis function, which determines the maximum level of compounds it can create (3 Options, +50% Price, -20% Lifespan).

Rechargeable: The nanite can either be collected for use later, or it can be given the ability to recharge itself off of a particular form of EM radiation while it is not performing it's other functions. These nanites can be recharged in a nanotech toolkit or workshop at the rate of one nanite colony for every point of Quality of the tools, in one minute. A workshop recharges up to ten times that amount simultaneously. Nanites designed to recharge themselves can totally recharge in one hour of inactivity, divided by their Quality, provided they do so in the presence of a strong source of their designed EM recharging radiation. Most of these kinds of nanites recharge off of visible light, or infrared light. A single nanite colony requires on point of charge to be counted as fully recharged, their lifespan is a function of energy conservation in design, not energy contained (2 Options, +100% Price).

Reproduction: A nanite with this option can replicate itself provided there is enough of it's constituent elements around it. To use this function it must have both the Molecular Alteration and a Highly rated Material Analysis functions, in addition to an additional rating point of Data Storage so that it can contain the blueprints it needs to replicate itself. This function is often combined with both Rechargeable, Chemical Alteration and Chemical detection to create terraforming nanites (3 Options, +100% Price).

Movement Options

How the damn things get from one place to another. This affects their Lifespan, their price, and often costs Option points.

TABLE 7-6: NANOTECH MOVEMENT OPTIONS

Movement	Option Points	Price Modifier	Lifespan
Immobile	---	---	---
Crawling	1	+25%	-10%
Floating	2	+50%	-20%
Short Range	3	+75%	-30%
Medium Range	4	+100%	-40%
Long Range	5	+150%	-50%

Immobile: The thing just sits wherever it is placed, like a lump on a log. Of course, if it is placed in something that moves (such as a bloodstream), then it gets to move around for free... (0 Options, +0% Price).

Crawling: It pulls itself along, over any solid or through any liquid material that is not air. This is VERY slow, typically only allowing it to move at a speed of 1 ft per round (1 Option, +25% Price, -10% Lifespan).

Floating: The nanite by hook or by crook can float in the air, moving slowly through 3D space by riding air currents. It has no control over it's direction, and travels in the speed of the air at the same velocity (2 Options, +50% Price, -20% Lifespan).

Short Range: The nanite is capable of moving through the air using an internal storage of propellant, or by magnetic induction. In either case it has a Speed of 10, but can only travel up to 30 feet before it's fuel (and Lifespan) is exhausted. Every 10 ft it moves cuts it's Lifespan by 1/3rd. The prevailing wind conditions can affect this by either pushing it off course, adding to it's velocity, or subtracting from it's velocity depending on the strength and direction of the air currents (3 Options, +75% Price, Lifespan -30%).

Medium Range: The nanite is capable of moving through the air using an internal storage of propellant, or by magnetic induction. In either case it has a Speed of 20, but can only travel up to 60 feet before it's fuel (and Lifespan) is exhausted. Every 20 ft it moves cuts it's Lifespan by 1/3rd. The prevailing wind conditions can affect this by either pushing it off course, adding to it's velocity, or subtracting from it's velocity depending on the strength and direction of the air currents (4 Options, +100% Price, Lifespan -40%).

Long Range: The nanite is capable of moving through the air using an internal storage of propellant, or by magnetic induction. In either case it has a Speed of 30, but can only travel up to 90 feet before it's fuel (and Lifespan) is exhausted. Every 30 ft it moves cuts it's Lifespan by 1/3rd. The prevailing wind conditions can affect this by either pushing it off course, adding to it's velocity, or subtracting from it's velocity depending on the strength and direction of the air currents (5 Options, +150% Price, Lifespan -50%).

Programming Options

This is what a nanite is specifically designed to do. While it's functions and movement give the framework for what it is built to serve as, this is where you have to *state specifically* it's purpose and how it works in game terms. This is done by choosing one or more programming options for it, which can also cost Option points and affect it's final cost.

TABLE 7-7: NANOTECH PROGRAMMING OPTIONS

Program	Option Points	Price Mod
Altered Direction	1	---
Construction	---	---
Destruction	---	---
External Direction	---	---
Predetermined Direction	---	---
Reprogrammable	2	+50%

Altered Direction: The nanite is capable of changing it's direction of travel based on some external or pre-programmed condition. If it is an external condition, then it must have a function that senses that condition, such as Energy Sense (1 Option, +0% Price).

Construction: The nanite builds some specific thing that it contains the design specifications for. It must have enough free Data Storage function to contain the design (0 Options, +0% Price).

Destruction: The nanite destroys something either by attaching to it and using Ablation (effectively being a miniature bomb), Chemical Alteration, or Molecular Alteration. Living creatures get to resist this by making a Fortitude save against a DC equal to 10 + (Quality x 2). A successful save indicates that their immune system has managed to defeat the nanite colony, so THAT exposure to the nanite colony is ineffective. later exposures require more Fortitude saves, with no bonuses from previous successful saves (0 Options, +0% Price).

External Direction: The nanite is directed to a specific spot by use of some sort of directed energy signal, or homes in on a type of energy. It must have the Energy Sense function to do this (0 Options, +0% Price).

Predetermined Direction: The nanite colony travels in a specific duration until it either runs out of Lifespan, or is encounters something by means of Chemical Detection, Material Analysis, or Energy Sense that causes it to switch to using a particular function (0 Options, +0% Price).

Reprogramable: The nanites can be reprogrammed, but only by means of a nanotech toolkit or workshop. They must have the Rechargeable function to do this (2 Options, +50% Price).

Gear Level

Nanites only have a gear level if they are directly effective in combat. If they heal damage, deal damage, or prevent damage then they are effective in combat. In these cases, nanites have a Gear Level equal to 1/1000th their total price, rounding down.

Example Nanotech Devices

Only somebody with the Magi feat can make Nano Ghosts, Nano Interfaces, and Nano Spectres. Nanobots are virtually weightless.

Nano Ghost (Magi): These expansive nanites are made exclusively by Magi, and can only be used effectively by them. They travel to either a pre-programmed direction and distance within 60 ft, or up to 60 ft away by a directed radio wave pulse sent out by a Magi. Once there, their outer layer expands to several thousand times their original size, electro statically capturing a large pocket of air around it. It then magnetically bonds to the surrounding nanites in it's group, forming the desired device from the very air itself. The visible effect of this is the device starting as a fuzzy outline twice it's normal size, then quickly condensing and gaining solidity. the nanites only travel at a Speed of 20, and every 20 ft they travel cuts their Lifespan by 1/3rd.

Devices with moving parts can be created with these nanites, but not those with electronic or electrical components, or that rely on a chemical reaction (thus a slug-thrower could be made, but not the bullets). They cannot create devices of a Quality higher than 5. Only up to Basic technology devices can be created by these nanites. The nanites last for up to 1d6 x27 minutes minus 1/3rd for every 20 ft they traveled, after which their internal energy expires and they decay into oxidized worthless and harmless microscopic dust, reversing the appearance of the item's creation. They can create Simple devices of up to 50 lbs.

Quality 6 Constructed Supermolecule Construct
Lifespan: 2d6 x4.5 minutes; *Cost:* 6,300
Functions: Cohesion, Minor; Material Analysis, Simplistic; Minor [item up to 50 lbs]; Data Storage 2; Energy Sense; Expansion
Movement: Medium Range
Programming: Construction; External Direction, Predetermined Direction
Special: Magi; Magi Compression

Nano Interface (Magi): These nanites are directed to their target by a radio wave pulse given off by a Magi with a Cerebral Computer using a built-in or Neural Jacked radio communicator. They can travel up to 90 ft before running out of motive power, but only have a Speed of 30 ft. They are designed to pierce the outer shell of an electronic device, and integrate themselves into the device's control systems so that it can be controlled remotely using the same radio wave transmission that directs them. The Magi using them must spend a full round directing them before they are usable, and succeed in a Remote Operation check against a DC equal to 10 + the Hardness or half the Damage Reduction of the targeted device.

Once in place he can attempt to usurp control of the device. This requires a Computer check for most devices, or a Robotics check for robots. The DC of the check is 10 + the device's Quality (Computer or Robotic OS Quality for robots and computers), plus the Quality of any Security program the target is using if it is a computer or robot. The Magi gains a bonus on this check equal to the rating of any Codebreaking program he is running in his Cerebral computer, that he himself wrote after becoming a Magi. This check is a free action, but can only be attempted once per dose of nano interface.

If the check is successful, the Magi is considered an authorized user of the device, indeed he has full control over it! As a standard action he can mentally change one facet of it's function (show a different reading, issue a new order, ect), so long as the alteration is within the bounds of what the device is normally capable of. This action can even be used to issue orders to a robot, either to cancel an existing order or to replace it with a new one!

The nanites last for only up to 2d6 x 4 rounds, minus 1/3rd for every 30 ft they have to travel. After this time their internal power runs out, and they are carbonized by the electrical energy passing through the circuits they are attached to. The controlling Magi can command them to go off before that, overloading the device they are attached to or just self-destructing harmlessly. If commanded to overload the device, they have a 10% chance of causing it to malfunction for every round of duration they had remaining, in addition to doing 10 points of damage to the device's circuits (a robot's computer).

Quality 10 Macromolecule
Lifespan: 2d6 x 4.5 minutes; *Cost:* 1,725
Function: Data Storage 2; Energy Sense; Material Analysis, Simplistic; Molecular Alteration
Movement: Long Range
Programming: Construction; External Direction
Special: Magi; Magi Compression

Nano Meds (by race): These nanites have to be injected into the bloodstream of the subject to be effective, and remain dormant otherwise. They are programmed with the base-line of the subject's species' body, according to their species' DNA. Once injected, they flow through the bloodstream finding tears in the capillaries. Once located, they read the protein code of the capillary tissue they are in to determine what kind of tissue has been lost, then use surrounding damaged cells and blood volume to rebuild the needed tissue in the pattern their stripped-down DNA profile indicates.

This has the effect of healing one Hit Point to the subject every round, but at the cost of a Vitality Point for every Hit Point healed, as the nanites burn all their energy on rapidly reconstructing damaged tissue. Once activated by the presence of Hit Point damage, they burn off a minute of their Lifespan for every Hit Point they heal. If the subject has been the recipient of genetic modification, there is a 5% chance per genetic modification that the nanites instead DEAL Hit Point damage when activated! This can be avoided by having them custom-made, which costs twice the normal amount and requires a sample of the subjects new DNA to be given to the person Crafting the nanites before they can be made.

Quality 10 Cohesive Multimolecule
Lifespan: 1d6 x7 min; *Cost:* 3000
Functions: Data Storage 5; Material Analysis, Highly; Molecular Alteration
Movement: Immobile
Programming: Construction

Nano Ripper Pack: An off-shoot of nano med technology, these nanites are designed to latch onto any cell, and tear it apart! They can be used like a grenade-like weapon, and even a Quality 1 Hazardous Environment Suit protects against them. When used, they are ejected from the pack that contains them by a small concussive charge, that spreads them over a 10-ft radius and turns them on. Once active, they tear into ALL organic matter in the area, dealing 10 Hit Points of damage at the end of every round! Leaving the area of the effect will not save an organism, as they remain attached to it. Every organic being affected reduces the amount of damage the next being takes by 1 point, due to having reduced the total amount of nano rippers in the area. Any being still alive after the nanites run out of power no longer takes damage from the nano rippers, but most died long before and began to liquefy. Every round a creature takes damage, he gets a Fortitude save to resist the damage *for that round only*.

Quality 10 Cohesive Multimolecule
Lifespan: 1d6 x5 min; *Base Cost:* 2,800
Functions: Data Storage 3; Material Analysis, Moderate; Molecular Alteration
Movement: Floating
Programming: Destruction

Nano Scrambler Pack: This grenade-like application of nanotech is the precursor device for the nano interface perfected by the Magi. The nanite's this pack releases when it explodes expend themselves trading electric pulses around the area of effect, a process which takes only a few second. The magnetic field is magnified by ferrous metal molecules that each nanite sheds in order to intensify the field in it's area. All electronic or electrical devices in that area are affected as if by an electromagnetic pulse. They each have a 50% chance per round the nano scramblers are active of malfunctioning, checked at the end of every round. Computers and robotic computers are subject to fluctuations in magnetic fields all the time, and have been designed with countermeasures. Subtract five times their Quality from the percentage chance of malfunctioning.

Quality 5 Macromolecule
Lifespan: 1d6 x3 rounds; *Base Cost:* 563
Functions: Ablation; Broadcast Transmission, Magnetic
Movement: Floating
Programming: Destruction

Shield Nanite Refill (Magi) *(Quality Varies, Amazingly Complexity, neg. lbs, neg. Hit Points, Hardness neg.):* These nanites remain dormant until they detect the same coded radio wave transmission that their designated Nano Shield device uses. Then they circle the device's point of transmission, and wait. When they detect the reflection of the radio wave transmission from outside the field they create, they move to intercept whatever is causing the reflection. The end result is that the field they create counts as an extra layer of armor, providing DR equal to +10 with a Damage Threshold of 1, and no effect against energy attacks (which do not reflect the pulse). The Shield Nanites are particularly effective at blocking other nanites, they reduce the effective Quality of any airborne nanite trying to get inside the field by 10, without any loss in Damage Reduction. A single dose of Shield Nanites provides protection as long as the Nano Shield keeps transmitting it's signal, or until al their DR is consumed reflecting that they have all been destroyed. This is due to their ability to recharge themselves off of the very signal that the Nano Shield is putting out.

Quality 10 Macromolecule
Lifespan: Special; *Base Cost:* 3,500
Functions: Ablation; Energy Sense; Rechargeable, Radio Waves
Movement: Long Range;
Programming: Altered Direction; External Direction
Special: Magi

Nano Spectre (Magi): This is identical in form and function to the Nano Ghost nanites, except that the thing they create is mobile and can act like a creature! This extra mobility and the required processing power needed to give it volition cuts down radically on their life-span. Unlike Nano Ghosts, a Nano Spectre lasts only 2d6 rounds. Once they form into the creature, the no longer lose Lifespan for moving.

Nano Spectres are small-size normally. Tiny and even Diminutive ones can be created, increasing their life-span by x2 and x4 respectively. Their Statistics are in the Creatures file.

Quality 7 Constructed Supermolecule Construct
Lifespan: 2d6 rounds; *Cost:* 9,888
Functions: Cohesion, Major; Data Storage 4; Expansion
Movement: Long Range
Programming: Construction; External Direction; Predetermined Direction
Special: Magi; Magi Compression

Nano Torch: This nanotech colony attaches itself to a solid object and either tears apart, or bonds together, whatever molecules it finds. It does 5d10 Hit Points of damage each round and ignoring hardness. If commanded to cut, this damage represents it's progress through whatever it was applied to. If told to bond, this damage represents how well it has bonded the two objects (once damage equals the lowest Hit Points of a single inch of either object, the bonding is complete). Each dose of these suckers can cover anywhere from up to a square six inches on a side, to a line a quarter inch wide and 12 feet long! The nanites can be collected once they have run their coarse, or be prematurely deactivated by a radio-wave command. Once collected, they can be recharged in a nanotech factory for further use.

Quality 5 Macromolecule
Lifespan: 1d6 x9 rounds; Base Cost: 613
Functions: Chemical Alteration; Chemical Detection; Energy Sense; Rechargeable
Movement: Immobile
Programming: Construction; Destruction

EIGHT: VEHICLES

STEP-BY-STEP VEHICLE DESIGN

I know these rules are probably the most complicated for all the technology systems in this book, which is why the come last. By now you should be familiar enough with the Template/Option system that was introduced to you in the Armor section to be able to handle vehicle design. To help you through this process, I'm going to go over vehicle design a step at a time, complete with an example vehicle we will design together. The examples are below each step, in italics.

Do not be afraid to go back one or more steps so you can get something you forgot or need.

When determining the cost and Hit Points of a system, always round fractions down after applying any Options.

Vehicle Design Steps

#1 Purpose of the Vehicle
#2 Name of the Vehicle
#3 Choose Design Mass
#4 Choose Chassis and Options
#5 Choose Armor and Options
#6 Choose Crew Space and Options
#7 Choose Cargo Space and Options
#8 Choose Access Points and Options
#9 Choose Drive System and Options
#10 Choose Lift System and Options
#11 Choose Electronics and Options
#12 Choose Life Support System and Options
#13 Choose Weapons Pods and Options
#14 Choose Special Systems and Options
#15 Choose Power Plant and Options
#16 Find Actual Mass and choose Waste Mass
#17 Determine Vehicle Statistics
#18 Determine Vehicle's Performance

#1 Purpose of the Vehicle

The first and most important thing to do is to decide what you want your vehicle to *do.* Is it a utilitarian ground vehicle? It is a water-borne vessel? Is it an atmospheric fighter? A space fighter or space ship? Write down what you want the vehicle's purpose to be so that you can keep it firmly in mind. it will also serve as a reminder to yourself and a notice to others of what exactly the vehicle's intended use is!

Shazarak is a Flakam performing some rebel clean-up work on the DeathTek-occupied world of Hope 3. He decides that he would be better at pulling it off if he could get some aerial reconnaissance, but Hope 3's heavily-ionized upper atmosphere prevents satellite recon from being effective. So he decides to build a small aircraft that he can use to personally fly below the ionosphere and scout out rebel movements.

#2 Name of the Vehicle

This is not quite so important as the purpose of the vehicle, and could be argued that it is totally *unimportant*, but it is fun anyway! Pick a name for your vehicle that you can refer to it by, something descriptive or catching.

Shazarak decides that his vehicle's name should be something descriptive of what he will use it for. He decides on "HiEye", he likes the way it sounds.

#3 Choose Design Mass

Now decide how big you want the vehicle to be. Be careful, a vehicle that is to big won't have an easy time accelerating, while one that is too small will not be able to carry as much. The Size by Mass table later on might help you decide. Keep in mind that the vehicle's Mass need not be a whole number, Mass is simply a short-hand term meaning "1,000 lbs".

The HiEye only needs to carry Shazarak, and maybe some gear. It won't be getting into combat, so there is no need for lots of weight in armor or weapons. Shazarak decides on setting the Design Mass at 0.5, after all the lighter it is the less power it will take.

#4 Choose Chassis and Options

Now you pick what kind of Chassis you want. the better the material you want your Chassis made from, the more it will cost and the more Complex it will be. This indicates that you might not be able to get it in the system you are in, if it cannot produce manufactured products of that Complexity. The ratings for the Chassis are multiplied by the Design Mass of the vehicle. You pick the Quality and Options for your Chassis as if it where any other piece of technology. Note that Chassis have LOTS of Hit Points, this is because it is the sturdiest part of any vehicle! In most combat situations, a vehicle will be incapacitated because *another* system was reduced to 0 hit points!

Shazarak is in luck. He is working for DeathTek, so he gets access to their manufactured materials from their shipyards orbiting Hope 3. He decides to go for broke, and gets a Quality 9 Plasteel Chassis with the Radical Streamlining Option and taking the Light System Option five times!

The Base Price of the Chassis is 90 x Mass (0.5) x Quality (9), or a total of 405. This is modified by the Radical Streamlining (+75%) and the five Light System (+100% total) Options, for a total cost of 1113 credits (450 +175% rounded down)! The Chassis weights 58.5 lbs (90 lbs x Mass of 0.5 x Radical Streamlining +30%), and has 5,062 Hit Points (1,125 x Mass of 0.5 x Quality of 9).

#5 Choose Armor and Options

Now it is time to put armor on your vehicle. The amount of armor you need depends on two main factors: how much pressure it needs to withstand and it's likelihood of getting into combat. The armor section indicates the ratings worth of armor necessary for different environments. Combat-designed vehicles should have more armor than is necessary, at least enough to withstand the scale of weapons the designer expects them to face. Armor is heavy however, so be careful how much you pack on! Like the vehicle's chassis, the statistics for a rating point of armor is multiplied by the vehicle's Design Mass to find out how many units of the chosen armor at the desired rating is necessary to cover the vehicle. Options for vehicle armor are very similar to the options for personal armor.

The HiEye is not supposed to function in any extreme environments such as on water or space, and is not meant to get into combat. In addition, with a vehicle this light every pound counts! So Shazarak decides not to get any armor for it.

#6 Choose Crew Space and Options

Now you have to decide how many people you want the vehicle to carry, and how it should carry them. A good rule of thumb to use here is to assign seats for utility or troop transport vehicles, a cockpit for combat vehicles, and quarters for any vehicle that will be traveling for at least one day at a stretch.

Shazarak will only be using the vehicle during the day, when the rebels will be visible from above. He decides that since there is no need to be protected from the rebels when he does not expect to have to fight them, he will use an external crew space to pilot from. An External Harness at Quality 1, while difficult to pilot from, suits his needs. The cost for his Crew Space is thusly only the cost of the Quality 1 External Harness, 10 credits. it weights 10 lbs and has 12 Hit Points (12.5 x Quality of 1 rounded down).

#7 Choose Cargo Space and Options

You doubtlessly will be needing to carry cargo of one sort or another: fuel, air supply, ammunition, or even just a generic place to stash things for transit. No matter what kind of inanimate thing you have to lug around, this is where you decide what to put in.

The HiEye has nothing it will need to carry, Shazarak wants to use a self-contained power and drive system in order to lower the need for maintenance.

#8 Choose Access Points and Options

You need a way for people to get into and out of the vehicle, otherwise who could use it? That is where this comes in. A regular 5 ft square door is enough to gain entrance to any internal Crew Space system, but you might want something more involved if you are operating in an extreme environment or carrying cargo.

The HiEye has no internal cargo or crew areas, and therefore needs no access points.

#9 Choose Drive System and Options

Now you need to determine how your vehicle gets from one place to another: it's means of motive power called the Drive System. While Drive Systems are also related to Lift systems, the two systems have differing requirements for their function and need to be recorded separately. It is possible to have multiple Drive Systems, and to use them concurrently or have extras as back-ups. Each Drive System indicates where it can be used: water, ground, atmospheric, or space and some can be used in multiple places! Don't forget that the Drive system needs to be rated in units of Thrust it provides!

The HiEye needs to operate away from any maintenance, and without a heavy fuel requirement. After looking at his choices, Shazarak decides to use a Rotor Drive. He picks Quality 10 so he can have allot of Options (Fuel Efficient five times), and decides on 1 Thrust point. The Base Price is 500 credits (100 x Quality of 10 x Thrust of 0.5), and the total cost to 1,125 credits (+125% Light System). It Weights 2.5 lbs, has 1,000 Hit Points, and an energy requirement of 0.5 Charge/rd (1 Charge x Thrust of 1 -50% for Fuel Efficient)! That is one nice engine block!

#10 Choose Lift System and Options

This only really applies to vehicles that operate inside a gravity well, but above the surface layer of a planetary body. Some Lift Systems have special effects if used in space, but most would just be ineffective. In effect, only aircraft need a Lift system.

The HiEye is going to be operating in an atmosphere, as a flying vehicle. After looking at the available Lift systems, Shazarak decides to take advantage of his Radical Streamlining to get Wings. He only needs half a Lift point to negate his vehicle's Design Mass, and decides to get the best he can. After all, DeathTek is footing the bill! A Quality 10 Wing Lift System with a Lift of 0.5 has a Base Price of 50 credits (10 x Quality of 10 x Lift of 0.5), and 5 Option Points. Shazarak decides to minimize his weight so he takes Light System five times again, which brings the Cost up to 100 credits (50 Base Price +100% for Light System five times). Wings weight 200 lbs per point of Lift, so these weight 50 lbs (200 lbs x Lift of 0.5 - 50% for Light System)! Unlike other Lift Systems, they are just extended portions of the Chassis, and do not have their own Hit Points.

#11 Choose Electronics and Options

Many vehicles have communications, sensor arrays, or on-board computers to assist them in their functions. Most vehicles meant to function with a group have a communicator. Most vehicles meant to function at great speeds or extreme conditions have at least rudimentary sensors. Vehicles that have to run complex programs as part of their normal operations *have* to have a computer!

Even though the HiEye will be an aircraft, it isn't going to be traveling very fast or engaging in any sort of combat. Shazarak decides that since he will be outside of the vehicle piloting it anyway, he might as well do without any electronics. After all, he can use his personal gear for communication and detection.

#12 Choose Life Support System and Options

A vehicle that is meant for long trips or operation in extreme environments needs some method of keeping it's passengers alive! This could be as rudimentary as an air tank for short-duration fighters, to as complex as total environmental recycling systems for long-distance space craft.

The HiEye will be operating at such a low Speed and altitude that the pilot really doesn't have to worry about things like oxygen deprivation, and for only the daylight hours so hunger or thirst really will not be a problem either. Not that Shazarak is concerned over that, he doesn't need to eat, drink, or breathe anyway!

#13 Choose Weapons Pods and Options

Vehicles designed for combat should have mounted weapons, otherwise they are just expensive moving targets! Weapons have to be mounted with a "facing", that indicates the direction the weapon can attack in relative to the vehicle's direction of travel. "Forward" facing weapons have to fire in the direction the vehicle is traveling in, "rear" in the direction it came from, and so on. All told there are five directions for surface vehicles, and six for aircraft or space vehicles.

The HiEye is a reconnaissance vehicle, weaponry would only draw attention. hence Shazarak decides to have no weapons on board, unless he fires them from the pilot's harness!

#14 Choose Special Systems and Options

This category is a catch-all for things that really do not fit into other categories, from launching areas for other vehicles to surgical rooms. most of these are only necessary for vehicles designed for a specific purpose, or as secondary systems in a larger vehicle designed for multiple functions.

The HiEye barely has enough room for it's ENGINES, let alone anything else!

#15 Choose Power Plant and Options

Now you add up all the energy requirements your vehicle has, and choose at least one power source to keep them all running. Power Plants put out energy in exchange for fuel of one type or another, so you might have to go back and add in a fuel tank from Cargo Systems.

After thinking about it Shazarak decides that since he has only one thing that requires energy, his Drive System, he might as well take the Direct Feed Option. If he gets a Quality 10 Solar Array he can get that and the Fuel Efficient Option four times, so that he can power the Drive System even on slightly cloudy days. The Solar Array restriction on the maximum Charge it can produce (Mass maximum) means that his Solar Array will only produce 0.5 Charge/round...not a problem as that is the energy requirement of his Drive System! The final Solar Array has a Base Price of 10 credits (0.5 Charge x Quality of 10 x 2), and a final Cost of 20 credits (+100% Fuel Efficient). It weights 2.5 lbs (5 lbs x Charge of 0.5), and has 62 Hit Points (12.5 x Quality of 10 x Charge of 0.5, rounded down).

#16 Find Actual Mass and choose Waste Mass

Now add up all of the weights of all your systems. If you divide this number by 1,000 you end up with your vehicle's Actual Mass. So long as it has not gone over your Design Mass, you are ok. If it has, it is time to back-track and start either adding Options or dropping systems to get back under your Design Mass. And of your Design Mass that is not accounted for with your Actual Mass is Waste Space. Some of this Waste Space may need to be allocated to other things, such as the person using an External Harness or Seat, but the rest can be used as per Waste Mass at the end of this section.

Shazarak takes a look at how much he has left from his design mass of 0.5 (500 lbs):

-58.5 lbs Chassis
-0 lbs Armor
-10 lbs Crew Space
-0 lbs Cargo Space
-0 lbs Access Points
-2.5 lbs Drive System
-50 lbs Lift System
-0 lbs Electronics
-0 lbs Life Support System
-0 lbs Weapons Pods
-0 lbs Special Systems
-2.5 lbs Power Plant

He has used up a total of 114.5 lbs out of 500! Even allocating 250 lbs for pilot (being very generous), he still has 135.5 lbs left! This means an Actual Mass of 0.3645 (364.5 lbs). He decides to use the Waste Mass rules to have it all be internal, in case he want to add something later or gets hit so he has a "crumple zone" to take damage.

Unfortunately, this also means that his final Speed will be reduced by 50% due to the drag the pilot creates (250 lbs is 50% of the Design Mass of the 500 lb vehicle).

#17 Determine Crafting Difficulty

Now you have to find out how much the total vehicle costs, and how difficult it will be to build. The first is the easiest, merely add together to costs of all it's systems. To find how hard it is to put together, use the Chassis' Complexity and Quality to get the DC based on the table here, then follow the regular Crafting rules. You must already have all the vehicle's systems built for you, or you have to assemble them yourself using the same table for each individual system. if you are building a vehicle from *absolutely raw materials*, then this will take a lllloooonnnggg time!

Complexity	*Vehicle Craft DC*
Primitive	5 + Quality
Simple	10 + Quality
Basic	15 + Quality
Average	20 + Quality
Great	25 + Quality
High	25 + (Quality x2)
Amazing	25 + (Quality x2)

Now Shazarak pays the price for such a nice recon vehicle. The costs of each system are added up:

405 credits Chassis
10 credits Crew Space
1,125 credits Drive System

100 credits Lift System
20 credits Power Plant

For a total cost of only 1,660 credits! Not too bad for something with so many high-end components! The Craft DC for it will be pretty nasty though, a Plasteel Chassis is High Complexity, and at Quality 10 that comes out to a Craft DC of 35! Good thing Shazarak is a Technician with top-Quality tools, or he might never be able to pull it off.

#18 Determine Vehicle's Performance

Now you need to see how long your vehicle can operate before it needs refueling, what it's Speed is, and what it's Maximum Velocity is. you will also need to determine it's Maneuverability as well.

To find it's maximum operation time, simply determine how long it can run each system it has concurrently. The shortest of the durations is the maximum amount of time the vehicle can operate between "pit stops" to refuel. Most often this will either be the Life Support system or the Drive and/or Lift system as they all tend to consume actual fuel. This can change if the vehicle is not using it's full capacity.

The vehicle's Speed is equal to ten time it's Thrust, divided by it's Actual Mass Squared: (10 x Thrust) / (Actual Mass x Actual Mass). Don't forget to add in any modifiers from Chassis options, External Cargo-created drag, or other sources. As the vehicle's Actual Mass changes, so too can it's Speed. A vehicle that operates in different environments will have a slightly altered Speed, shown on the table below. Round all Speeds down to the next lowest multiple of 5.

Environment	*Alteration*
Gravity <>1g	ground Speed/gravity strength (/0.001 max)

The vehicle's Maximum Velocity is based on it's Speed, and the type of vehicle it is, or at least the environment it is currently operating in.

Vehicle Type	*Max Velocity*
Submersible	2 x Speed
Water-craft	4 x Speed
Ground	5 x Speed
Aircraft	10 x Speed
Spacecraft	Speed x Speed (Minimum of Speed x 10)

To find a vehicle's Maneuverability, cross-reference it's Thrust System's Maneuverability with it's Size Category by Actual Mass, then refer to the Maneuverability Table.

Using the weight information from Step #16, build a Hit Location table for your vehicle. This is the percentage chance of hitting a given component by it's weight relative to the total weight of the vehicle. Instructions are given later on.

As long as the sun is shining, and the day isn't too overcast, the highly fuel-efficient Solar Array can keep enough power going to the also very fuel efficient Rotor Drive to keep it flying, and that is the only system that requires any sort of power or fuel. in essence, the HiEye can operate an average of 12 hours a day!

The HiEye has an Actual Mass of 0.3645 (364.5 lbs), a Thrust of 1, and is an aircraft. According to the rules it has a Speed of (10 x 1) / (0.3645 x 0.3645), which simplifies to 10 / 0.13286025. This means a Speed of 75.26705693, rounded down to the next lowest multiple of 5 which is a Speed of 75. The +50% Speed for Radical Streamlining from the Chassis Option, and the -50% Speed from the drag created by the pilot in the External Harness cancel each-other out. This is still enough for the HiEye's wings to lift it.

The HiEye's maximum velocity as an aircraft equals it's Speed x 10, or 750. this means that after 10 move actions of regular acceleration, it will be traveling at a total Speed of 750!

The HiEye's Rotor Drive has a base Maneuverability of 45/20 ft. It's extremely low Design Mass gives it a Size category of Small. Cross-indexing these two you end up with a final Maneuverability of 45/5 ft!

THE HIEYE

Purpose: Atmospheric reconnaissance ultra-light
Design Mass: 0.5 (500 lbs)
Chassis: Quality 10 Plasteel (Light System x 5)
Crew Space: External Harness (250 lb pilot max)
Drive System: Quality 10 Rotor (Thrust 1; 0.5 Charge/rd; Fuel Efficient x5)
Lift System: Quality 10 Wings (Max Lift 0.5; Light System x 5)
Power Plant: Quality 10 Solar Array (0.5 Charge/rd max; Direct Feed to Rotor Drive System, Fuel Efficient x 4)
Actual Mass: 0.3645 (364.5 lbs)
Waste Mass: 0.1355 (135.5 lbs)
Statistics: 1,660 credits.
Performance: Speed 75, Max Velocity 750, Maneuverability 45/5 ft.

d%	Hit Location	Hp	d%	Hit Location	Hp
01-22 (-5)	Chassis+Wings	5,062	75-79 (-9)	Drive	1,000
23-24 (-9)	Ext. Harness	12	80-84 (-9)	Solar Array	62
25-74 (-1)	Pilot	Pilot	85-100 (-6)	Waste Mass	NA

MASS, SIZE, AND SPEED

Mass (in 1,000 lbs, or "k lb"): One point of Mass equals 1,000 lbs. This is the unit of measurement for the ship's maximum final mass, and by extension it's volume. Even with crew and cargo, a ship cannot exceed this value without risking the loss of chassis and hull integrity.

Size (determined by Mass):

TABLE 8-1: VEHICLE SIZE BY MASS

Mass	Size Category	Size Mod
less than 2	Small	-1
2-6	Medium	+0
7-16	Large	+1
17-36	Huge	+2
37-79	Gargantuan	+4
80+	Colossal	+(Mass/10)

Speed: This is determined by taking ten times the vehicle's Drive System Thrust, then dividing it by the vehicle's Mass squared.

Or in other words: Speed = (10 x Thrust) / (Mass x Mass).

This is the vehicle's Speed rating, which is treated the same as that for a character. Unless they are running a Robotic OS, vehicles only get two Move actions per turn, and it takes the driver's Move action to implement them. Even the most simplistic vehicle can be left on autopilot, and it will then continue moving at the same Speed in the same direction. A vehicle with a Robotic OS can be given a destination, and it will then do it's best to make course changes necessary to get to the destination safely in the best possible time. For this purpose, a vehicle is considered to have a Pilot skill total equal to the Quality of it's computer multiplied by the rating of the Robotic OS.

Flying craft and submersibles have to resist the drag of the atmosphere around them, which can alter their Speed depending on the density of the environment's atmosphere. Every 10% greater than or lower than 1a of pressure alters the vehicle's effective Thrust by 25%, adding to it if it is less dense or subtracting from it if more dense. Thrust can never be reduced lower than 5% of it's regular value in this manner.

Reference: Water is 3a at surface level in 1G gravity, reducing effective Thrust by 95% for submersibles. Vacuum, such as space, increases effective Thrust by 250%. Neither Basic nor Radical Streamlining affect vehicles in a vacuum. Basic Streamlining ceases to be effective after the atmosphere has dropped below 0.2a. Radical Streamlining is treated as Basic Streamlining once he atmosphere has dropped below 0.5a.

A ground vehicle's maximum possible velocity is equal to it's Speed x 5. An aircraft's maximum possible velocity is equal to it's Speed x 10. A space-ship's maximum possible velocity is equal to it's Speed x Speed!

On a Move-equivalent action (for the vehicle) it can accelerate or decelerate an amount equal to it's Speed. The pilot can make a Pilot skill check with a DC equal to 10 + Vehicle's Size Mod. The amount he exceeds the DC by is additional Speed the vehicle accelerates or decelerates.

For ease of reference, the Speed of Light is equal to 186,300 miles/second, 1,117,800 miles/minute, and 670,680,000 miles/hour. A Velocity of 60 is gained from a Speed of 30 (two Move actions by a normal human walking), which is the same as 2 miles per hour. This equates to a Velocity of 20,120,400,000 being equal to the Speed of Light! Obviously nothing can come close to that, but it *is* possible to get up to "Relativistic Velocity". Relativistic Velocities are speeds that can be measured as a percentage of the Speed of Light, using whole percentage points. This is often abbreviated as "PSL" which stands for "Percentage of the Speed of Light". 1 PSL (1% of the Speed of Light) equals a Velocity of 20,124,000. A space craft can reach this Velocity if it's Speed is at least 1419.

For Example: A 5 Mass space vehicle with 2,000 lbs of Pump-Nuke Drive System has a Speed of 5,600, barely above 15 PSL. A 400 lb nuke and nine hours of acceleration would be necessary to reach that velocity!

An accelerating or decelerating vehicle produces virtual gravity inside of it due to momentum making things fall "down" to the direction away from it's direction of acceleration or deceleration. A vehicle must increase or decrease it's Velocity by at least 73 in a single round in order to produce 1g of gravity. Higher or lower Velocity changes in a round can produce higher or lower gravity (see "Gravity" in Chapter 12: Running the Game for details).

MANEUVERABILITY

Maneuverability is how fast the Vehicle can turn normally. It varies from "Perfect" to "Relative", with rating for 45 degree turns in between. Maneuverability is based on the Drive System the vehicle is using, with larger vehicles having worse Maneuverability and smaller ones having better.

Perfect Maneuverability means the vehicle can totally alter it's trajectory (direction of travel) to any direction. Relative Maneuverability means the vehicle requires at least a mile to change it's trajectory by 45 degrees. All Maneuverability rating in between indicate how far the vehicle must travel in order to change it's trajectory by 45 degrees. The vehicle must move the distance required to change it's trajectory *before each* 45 degree change in trajectory. It can make a wider turn by traveling further before it turns. Every multiple of it's Maneuverability distance it travels divides the effective degrees of the turn by the same multiple.

Just because a vehicle has changed it's trajectory does not mean it is now traveling at it's regular Speed in the new direction. Ground-based vehicles must drop their Velocity by an amount equal to the distance they had to travel to change their direction of travel (Relative Maneuverability ground vehicles must stop entirely). Aircraft must drop their Velocity by an amount equal to 1/5th of the distance they had to travel to change their trajectory (Relative Maneuverability aircraft must reduce it by an amount equal to 200 or stop entirely). Space craft must apply their Speed to counteract their Velocity, or else they continue traveling in the same direction the where before!

A pilot can attempt a Piloting skill check to eek out better performance in a turning vehicle. The DC for this check equals 10 + 1/5th the vehicle's Maneuverability distance, so a Maneuverability 45/20 ft vehicle would require a Pilot check DC of 14 (20 ft/5, plus 10). For every point this DC is exceeded by, the pilot can shave 5 ft off the distance the vehicle must travel before turning. If the check fails, then the pilot loses control of the vehicle for that Move action, and it either travels in a straight line or moves in a random direction using it's regular turning distance (50% chance of either).

Turning at high velocities can cause some serious gravity effects on the occupants of a vehicle. See "Gravity" in Chapter 12: Running the Game for details.

TABLE 8-2: VEHICLE MANEUVERABILITY

	Base Turning Radius						
Size Category	**Perfect**	**45/5 ft**	**45/10 ft**	**45/20 ft**	**45/50 ft**	**45/200 ft**	**Relative**
Small	Perfect	Perfect	Perfect	45/5 ft	45/10 ft	45/20 ft	45/50 ft
Medium	Perfect	Perfect	45/5 ft	45/10 ft	45/20 ft	45/50 ft	45/200 ft
Large	Perfect	45/5 ft	45/10 ft	45/20 ft	45/50 ft	45/200 ft	Relative
Huge	45/5 ft	45/10 ft	45/20 ft	45/50 ft	45/200 ft	Relative	Relative
Gargantuan	45/10 ft	45/20 ft	45/50 ft	45/200 ft	Relative	Relative	Relative
Colossal	45/20 ft	45/50 ft	45/200 ft	Relative	Relative	Relative	Relative

VEHICLE DAMAGE

When a vehicle is struck by a weapon, the particular system it hits is determined by a percentile roll. If the percentile roll results in a strike against a system the vehicle does not have, or that has been reduced to -50% of it's original Hit Points (destroyed), then re-roll. The percentile is based on the amount of the vehicle's loaded Mass that each system takes up. For ease of use, a generic table is provided. If the generic table indicates a system that the vehicle has multiples of, then roll randomly between all of those systems that have not been destroyed.

Apply the vehicle's Armor to all damage it takes from external sources. The individual system's Hardness also applies. Extra points over the Defensive Class from the to-hit roll do not provide extra damage, they allow the attacker to shift the percentile roll up or down by an equal number of percentage points as the difference. Individual systems can be targeted, but the penalty for doing so is 10 - 1/5th the number of percentile points assigned to that system (rounding up), minimum of -1 maximum of -9. The example table below gives an example of these. if such a targeted attack misses, it misses *totally!*

d%	*Targeted*	*System Hit*
01-05	-9 (5%)	Access Points
06-15	-8 (10%)	Cargo Space
16-45	-4 (30%)	Chassis Type
46-55	-8 (10%)	Crew Space (10% damage to crew)
56-65	-8 (10%)	Drive System
66-67	-9 (2%)	Electronics
68-72	-9 (5%)	Life Support System
73-82	-8 (10%)	Lift System
83-92	-8 (10%)	Power Plant
93-100	-8 (8%)	Weapons Pods

COMPONENT SYSTEMS

Chassis Type: The frame of the vehicle. once this has been reduced to 0 Hit Points, the vehicle is immobilized. If reduced to at least -50% Hit Points, the vehicle has been destroyed.

Armor: An external protective shell for the vehicle and it's systems. The vehicle's armor is subtracted from the damage rolls of any attack that manages to successfully strike the vehicle, the rest is applied to the random system of the vehicle the attack strikes.

Access Points: How things get into, and out of, the vehicle.

Crew Space: Space for the crew, including pilot areas and living quarters.

Power Plant: Energy source for all the vehicle's systems.

Drive System: The motive device that makes the vehicle move. Every 25% of the Drive System's Hit Points that it loses reduces the vehicle's Speed (or Delta-V in space) by 25%.

Electronics (including Computer): All the electronic systems inside the vehicle.

Lift System: The system that keeps the vehicle airborne.

Life Support System: the systems that maintain life functions for the vehicle's crew.

Cargo Space: The sections of the vehicle designed to carry cargo securely.

Weapons Pods: The places on the vehicle designed to mount and use weapons.

Special Systems: Pretty much everything else.

Waste Mass: What to do with designed Mass of the vehicle that was not used.

Chassis Type

Complexity: Varies.
Mass: The maximum design Mass of the vehicle.

TABLE 8-3: VEHICLE CHASSIS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity
Alloyed Metal	100 x Mass	(Quality x2)	Mass x600 x Quality	15	1,000 x Mass x Quality	Great
Ferrocrete	180 x Mass	Quality	Mass x300 x Quality	8	675 x Mass x Quality	Basic
Plasteel	90 x Mass	1 +(Quality x2)	Mass x800 x Quality	20	1,125 x Mass x Quality	Amazing
Steel	120 x Mass	1 +Quality	Mass x500 x Quality	10	900 x Mass x Quality	Average
Wood	200 x Mass	Quality/2	Mass x150 x Quality	5	500 x Mass x Quality	Simple

TABLE 8-3: VEHICLE CHASSIS OPTIONS

Option	Points	Price Mod
Basic Streamlining	2	+50%
Easy Repair	1 per	+10% per
Light System	2 per	+20% per
Radical Streamlining	5	+75%
Tough System	1 per	+10% per

Alloyed Metal: A composite alloy of several high-strength and high-flexibility metals. Cultures with only Average technology can make this type of Chassis, but at double the cost.

Ferrocrete: Concrete blocks reinforced with metal grating inside. Only cultures with at least Average technology can make this type of Chassis.

Plasteel: An amalgamation of metal and plastics forcibly welded together at the atomic level by nanites. Only cultures with at least High technology can make this type of Chassis.

Steel: Iron doped with trace elements of carbon and other impurities in order to make as strong a material as possible. if made by a culture with only basic technology, this type of Chassis costs twice as much.

Wood: Heat or pressure treated wood sealed with a veneer or lacquer coating. A culture with only Simple technology can make this type of Chassis, but at double the cost and half the Hit Points.

Armor

Complexity: Varies.
Note: A vessel must have a given rating of armor to be able to enter a particular environment without breaching it's hull integrity. This is shown on the table below:

TABLE 8-5: VEHICLE ARMOR FOR ENVIRONMENTS

Environment	Min Armor Rating
1a Atmosphere	0
Each 1a after the 1st	+2
Water surface	1
Submersible (3a)	4
Velocity >5,000 (in 1a)	3
Space	6

TABLE 8-6: VEHICLE ARMOR

Material	Wt in lbs	Options	Base Price per Rating point	Damage Threshold	Damage Reduction	Energy Resist
Alloyed	60 x Mass x Rating	Quality +1	18x Mass x Quality	(14+ Quality)x Mass	1+ (2x Rating)	2x Rating
Ceramic	50 x Mass x Rating	2x Quality	20x Mass x Quality	(14+ Quality)x Mass	2x (Rating +1)	1+ (2x Rating)
Plasteel	25 x Mass x Rating	2x (Quality +1)	25x Mass x Quality	(19+ Quality)x Mass	2x (Rating +1)	2x (Rating +1)
Steel	80 x Mass x Rating	Quality	15x Mass x Quality	(9+ Quality)x Mass	2x Rating	Rating +1
Stone	100 x Mass x Rating	Quality -1	10x Mass x Quality	(7+ Quality)x Mass	Rating +1	Rating
Wooden	100 x Mass x Rating	1/2 Quality	5x Mass x Quality	(4+ Quality)x Mass	Rating	Rating x0.5

TABLE 8-7: VEHICLE ARMOR OPTIONS

Options	Points	Price Mod
Coolant Packs	2 per	+25% per
Extra Plating	1 per	+25% per
Ghost Cloak	10	+500%
Heavy Carbon Fibers	1 per	+50% per
Lighter Materials	3	+100%
Micropocket Weave	1 per	+100% per
R.A.M. Lining	2 per	+100% per

TABLE 8-8: VEHICLE ARMOR COMPLEXITY

Armor Material	Complexity to Make	DC to Craft
Alloyed	Great	25 + Quality
Ceramic	High	25 + (Quality x2)
Plasteel	Amazing	25 + (Quality x2)
Steel	Average	20 + Quality
Stone	Basic	15 + Quality
Wooden	Simple	10 + Quality

Crew Space

Complexity: Varies

Hit Points: Crew areas have far fewer Hit Points than other systems of the same size. This is due to these areas being comprised of mostly empty space. Typically, a crew area will have only 10% of the Hit Points afforded to other systems.

Occupied Crew Space: If somebody is in a Crew Space system when it takes damage, they have to make a Reflex save DC 20 or else they take one Hit Point of damage for every 10 the system took. Personal armor reduces this amount.

Atmospheric Breaches: Whenever a Crew Space takes damage, there is a percentage chance that it's atmospheric seal has been ruptured. This chance equals 1% per point of damage that it took, divided by the Crew Space's Quality rating. A Crew Space system reduced to 0 or less Hit Points is automatically breached.

Small-Size Users: Small-size creatures can use Crew Space built for Medium-size creatures, but only by taking a -4 size penalty to their skill checks with the vehicle while doing so. Small-size Crew Space weigh half as much, have a Base cost 3/4 normal, and cannot be used by Medium-size creatures.

TABLE 8-9: VEHICLE CREW SPACE

Crew Space	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity	Energy Use
Command Center	20,000	Quality	5,000 x Quality	10	12,000 x Quality	Average	2 Charge/rd
Bench Seat	400	1/2 Quality	50 x Quality	5	400 x Quality	Basic	None
Bucket Seat	500	Quality -1	100 x Quality	5	125 x Quality	Basic	None
External Harness	10	1/2 Quality	10 x Quality	2	12.5 x Quality	Basic	None
External Seat	50	1/2 Quality	25 x Quality	5	12.5 x Quality	Basic	None
High-G Harness	+10	None	+15 x Quality	NA	NA	Average	None
Imaging Chamber	3,000	1/2 Quality	750 x Quality	10	1285 x Quality	Great	1 Charge/hr
Internal Cockpit	750	Quality	150 x Quality	10	450 x Quality	Average	1 Charge/hr
Quarters, Cramped	2,000	1/2 Quality	200 x Quality	5	500 x Quality	Basic	1 Charge/hr
Quarters, Normal	4,000	1/2 Quality	500 x Quality	5	1,000 x Quality	Basic	2 Charge/hr
Quarters, Plush	10,000	1/2 Quality	2,000 x Quality	5	2,500 x Quality	Basic	4 Charge/hr
Womb	1,000	Quality	500 x Quality	15	1571 x Quality	Great	2 Charge/rd

TABLE 8-10: VEHICLE CREW SPACE OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Bench Seat: A somewhat precarious padded bench within the vehicle. It fits one medium-size creature comfortably. Any Pilot checks made from this seat have a -2 circumstance penalty.

Bucket Seat: A body-fitting padded seat with a harness, that rests totally within the vehicle. It fits one Medium-Size creature comfortably.

Command Center: A 4-person area designed to allow access to all of the vehicle's systems at the push of a button. The stations are usually Weapons, Sensors, Communications, and Command/Piloting. The layout and ease of communication of the personnel manning these stations provides each one with a bonus equal to the Quality of the Command Center on all skill checks relevant to their station.

External Harness: A body-holding harness fixed to the outside of the vehicle. Any Pilot checks made from such a precarious position are at a -8 circumstance penalty. The user of this system is totally unprotected from attacks by the vehicle, except as it provides him with cover. It fits one Medium-size creature comfortably. Waste Mass must be devoted to "External Cargo" to account for the person in the External Harness.

External Seat: Similar to an External harness, but more comfortable and less prone to spine-breaking jerks. The circumstance penalty to the Pilot skill while in this seat is only -4. It fits one Medium-size creature comfortably. Waste Mass must be devoted to "External Cargo" to account for the person in the External Seat.

High-G Harness: A device that can be built into a Bucket Seat, Command Center (but takes 4), Internal Cockpit, or Quarters (by person). Somebody who is strapped into this device subtracts it's Quality x 0.5 from the effective Gs of any acceleration or maneuver that lasts no longer than two rounds.

Imaging Chamber: This is a spherical holographic imaging chamber 8-ft across. It comes equipped with a Neural Jack connection, and requires an on-board computer to use. Anybody who is connected to the chamber by means of a Neural Jack can be shown a 3d representation of a point in space, and then use the psionic power Hop to travel there *with the ship!* The distance traveled is dependant on the psionic power of the person using the chamber, as well as the strongest gravity well affecting the ship (including an Artificial Gravity system).

Internal Cockpit: A form-fitting seat surrounded by ergonomically-located controls and read-outs. Anybody piloting a vehicle from this area gets to add the Quality of the Internal Cockpit to all of their skill checks made for the vehicle! It fits one Medium-size creature comfortably.

Quarters, Cramped: A bunk bed (or bed sack), small storage locker, sink, and toilet. That is *it.* This is the most cramped quarters that a medium-size creature can use and still get some sort of rest. Small-size creatures treat it as Normal Quarters.

Quarters, Normal: An actual bed (or sleeping pod), built-in dresser/locker, fold-out table and chair, and a bathroom section complete with a *shower!* This is a decent sized area for a Medium-size creature to live within, and counts as Plush Quarters for a small-size creature.

Quarters, Plush: An actual bed (or sleeping pod), built-in dresser and locker, table with two chairs, and a bathroom that even has a place to soak in! This is a veritable palace within a vehicle, even if everything is in one room. A Medium-size creature is very much at home in this area, and a Small-size creature would feel like they were living in a cathedral!

Womb: A tube that allows for a Medium-size creature to rest inside of a fluid in order to better withstand high-G acceleration and maneuvers, subtracting it's Quality x 2 from the Gs felt by the being within. The creature within is kept alive by means of tubes that provide nutrients, and take away wastes. The creature is still awake and aware, unless it is rendered unconscious by some other means. It cannot operate any controls except for a basic "ejection switch" that disgorges it from the tube. The only exception to this is if a Neural Jack point that the tube comes equipped with.

Cargo Space

Complexity: Simple.

Cargo Mass: This is a measure of how much cargo the type of Cargo Space can carry in units of 1,000 lbs.

Cargo Space: Cargo spaces have far fewer Hit Points than other systems of the same size, mainly because they are mostly just empty space! The weight given for cargo areas is if it is loaded with it's maximum allowable amount of cargo, lighter cargo loads affect the ship proportionally.

TABLE 8-11: VEHICLE CARGO SPACE

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points
Cargo Bed	Cargo Mass x 1,200	1/2 Quality	Cargo Mass x 15 x Quality	10	Cargo Mass x 1,800 x Quality
Cargo Hold	Cargo Mass x 1,500	1/2 Quality	Cargo Mass x 30 x Quality	10	Cargo Mass x 2,250 x Quality
Flat Deck	Cargo Mass x 1,100	1/2 Quality	Cargo Mass x 10 x Quality	10	Cargo Mass x 1,650 x Quality
Fuel Pod	450 each	1/2 Quality	500 each	15	100 x Quality each

TABLE 8-12: VEHICLE CARGO SPACE OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Tough System	1 per	+10% per

Cargo Bed: A flat area surrounded by low walls. Like a Flat Deck it also has tie-down points, but the walls allow it to carry loose cargo as well. It cannot be used to carry loose care except in a gravity field of at least 0.3g.

Cargo Hold: Internal space designed to strap cargo containers into secure positions. It requires a Cargo Door Access Point to be able to use a Cargo Hold.

Flat Deck: A smooth even deck that has been reinforced and has tie-down points attached to it.

Fuel Pod: A single fuel pod can contain up to 50 gallons of liquid, such as fuel or water. 400 lbs of it's 450 lb weight is actually the liquid it contains.

Access Points

Complexity: Varies

TABLE 8-13: VEHICLE ACCESS POINTS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity
Air Lock	1,000	Quality -1	500 x Quality	15	8,000 x Quality	Average
Cargo Door	250 x 5 ft sq	1/2 Quality	100 x Quality	10	1,875 x 5 ft sq x Quality	Average
Cargo Lock	1,500 x 5 ft sq	Quality -1	1,000 x Quality	15	12,000 x 5 ft sq x Quality	High
Door	10	1/2 Quality	50 x Quality	10	75 x Quality	Basic

TABLE 8-14: VEHICLE ACCESS POINT OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Air Lock: This is a pressurized exit from the vehicle to another area at a different atmospheric density or composition. It occupies an area a little under 5 ft square, just big enough for one medium-size creature and it's gear. It takes 15 points of Charge to get it to cycle, a process which takes 1 minute.

Cargo Door: This is a simple sliding door. It can be opened in two rounds for 3 points of Charge per 5 ft square, or manually replacing a point of Charge for every two points of Strength score.

Cargo Lock: This is a larger version of an Air Lock, designed mainly to move cargo. It can fit up to 1,000 lbs of material inside of it for every 5 ft square it occupies, and takes 20 points of Charge per 5 ft square to cycle.

Door: A simple mechanical/electric door. The electrical version has a +25% price modifier, but does not use Option Points. The Charge cost to open it is negligible.

Drive System

Complexity: Varies.

Thrust: All statistics on the table below are per unit of Thrust. Thrust is an abstract measurement of general motive power for the drive system, and is roughly equivalent to 1,000 lbs of force.

TABLE 8-15: VEHICLE DRIVE SYSTEMS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity	Charge or Fuel Use	Maneuverability
Anti-Grav	0.5	Quality	1,000 x Quality	10	1 x Quality	Amazing	1 Charge/min	45/20 ft
Atmosphere Sail	10	1/2 Quality	2 x Quality	2	25 x Quality	Simple	Wind	45/50 ft
Ion	30	Quality	250 x Quality	10	128 x Quality	Great	1 Charge/hr	Relative
Jet Engine	0.1	Quality	200 x Quality	15	1 x Quality	Average	1 lb/hour	45/50 ft
Legs	5	1/2 Quality	50 x Quality	20	250 x Quality	Average	4 Charge/min	Perfect
Magnetic Sail	1	1/2 Quality	200 x Quality	10	4 x Quality	Great	1 Charge/day	Relative
Pump Nuke	0.05	Quality	2,000 x Quality	20	50 x Quality	High	0.01 lb/day	Relative
Radiation	20	Quality	500 x Quality	10	85 x Quality	Great	1 lb/year	Relative
Rocket	0.1	Quality	500 x Quality	15	8 x Quality	Average	1 lb/min	45/200 ft
Rotor	5	1/2 Quality	100 x Quality	15	50 x Quality	Basic	1 Charge/rd	45/20 ft
Space Sail	10	1/2 Quality	50 x Quality	5	20 x Quality	Average	Solar Wind	Relative
Tracks	3	1/2 Quality	20 x Quality	15	30 x Quality	Basic	2 Charge/min	45/10 ft
Wheels	2	1/2 Quality	10 x Quality	5	20 x Quality	Basic	1 Charge/min	45/5 ft

TABLE 8-16: VEHICLE DRIVE SYSTEM OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Fuel Efficient	1 per	+25% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Anti-Grav (any vehicle type): This is a plate of bizarre circuitry and odd mixtures of both alloys and plastics that, when an electrical charge is applied, rapidly oscillates a null-gravity field in one direction. This has the result of pushing the plate in the opposite direction than the field is pulsing. The technology that goes into the creation of this device is not very well understood. For some unknown reason, attempts to scale it down or up from the 0.5 lb plat design always result in a non-functional device. For this reason this Drive System can only be used in units of full Thrust, each of which represents a different plate.

Atmospheric Sail (surface only): This sail catches the wind and pushes the vehicle along in the direction the wind blows. the vehicle can tack to travel at angles to the wind, but every 15 degree tack reduces the Drive System's Thrust by 15% (to only 10% at a 90 degree angle). Each Thrust point of Atmospheric Sail requires a 20 mph wind to provide its full Thrust, with proportionately greater or lesser wind speed altering the Thrust the sail provides accordingly. Every mph of Wind Speed above 20 mph has a cumulative 5% chance of damaging the sail, doing 1d6 + the amount the roll succeeded by in damage per point of Thrust the sail is rated for! This is checked for every hour. Atmospheric Sails also add half their Thrust as a bonus to all checks to Spot the vehicle.

Ion (space only): This engine captures trace atoms in a vacuum and electrically excites them before ejecting them to produce Thrust. It is one of the most fuel-efficient and reliable Drive Systems, but can only operate in the vacuum of space. It's reliability and cheap cost make it a favorite for vessels that have a long way to go but are not in any hurry to get there.

Jet Engine (atmospheric flight only): This system uses a mixture of liquid oxygen and hydrogen to heat up atmospheric mass it sucks in one end, before ejecting it out the other end. It does not really mater what the atmosphere's chemical make up is, so long as it is not denser than 2a or thinner than 0.05a. Basic Complexity versions of this device can be built for the same weight, but half the cost and the same Hit Points. Such primitive drives burn un-oxygenated liquid fuel, and require that they be used in an atmosphere that contains at least 10% oxygen.

Legs (ground only): This is a set of at least two, and as many as ten times the vehicle's Mass, mechanical legs. A vehicle with legs is considered to have a Climb score and Balance score based on the number of legs that it has, as well as it's Design Mass. It's Climb score is equal to 4 x Design Mass, divided by the number of legs. It's Balance score is equal to it's 4 x the number of legs, divided by it's Design Mass. Thusly the more legs a vehicle has, the more stable it is but the more difficulty it has climbing over obstacles.

Magnetic Sail (space only): This drive system uses strong magnetic coils to produce a magnetic envelope that catches the solar wind and rides it. It is a cheap and low-energy means of space propulsion, but suffers from not being at all maneuverable and only working within the magnetosphere of a star. This combines to make it a favorite means of propulsion for vessels trying to move rapidly within a solar system, but only if they are not having to negotiate navigational hazards such as asteroid fields.

Pump-Nuke (space only): This space-only Drive System is just as space-efficient as a Magnetic Sail, but has it's own problems. It uses a small nuclear device ejected opposite the vehicle's direction of travel to produce a blast wave that it then rides for a brief period of time. Each detonation provides 1 hour's worth of Thrust, after which it takes 23 hours for the blast shield to cool down enough to withstand another blast. This is taken into account in the Fuel Use statistic. While a Pump-Nuke

provides great fuel economy, it's need to set off nuclear explosions for thrust requires that it only be used in deep space, far away from any inhabited area. because of this Pump-Nuke vessels are most often used for long trips outside of the magnetosphere of a star, and even then are either towed to a safe a launching point or get there with another space-capable Drive System.

Radiation (space only): This is a relatively easy and cheap means of space propulsion, halfway between an Ion and a Pump-Nuke Drive System. It is a bell-shaped thruster that contains 1 lb of fissionable material, in a manner akin to a Fission Power Plant. The inner walls of the chamber convert energy from the slow decay of the material into electrical power, which it then feeds back into the reaction mass in order to accelerate it's decay. Excess energy from this decay is then used to magnetically funnel the emitted particulate radiation out of the chamber in order to provide Thrust! All of the energy the chamber produces is required to fuel the process.

Rocket (atmospheric and space only): This simple device burns oxygenated fuels under pressure in order to produce Thrust that propels the vehicle.

Rotor (atmospheric only): This is a fan that spins in order to pull atmosphere from one side to the other, producing Thrust in the process. Low-Quality versions are nothing more than a blade on an engine, and easy to damage. Higher-Quality Rotor Drive Systems use one or more fan blades encased in a housing.

Space Sail (space only): This is a thin skin of unbelievably light material deployed between two super-conducting magnetic poles. The inside layer of the skin catches stray particles of solar wind, and pushes the vehicle. The outer layer absorbs microwave and gamma rays in order to convert them into the electrical energy that the sail requires in order to maintain it's electrostatic cohesion and the tensile strength of the poles. Space Sails are HUGE despite their light weight, and add their Thrust to the Spot and Search checks of anything trying to notice them.

Tracks (ground only): This extremely stable and reliable system is a series of interconnected metal plates that form a long looping belt, which is then stretched taut by several wheels. When the drive-gear wheels spin, the belt is pulled over the other wheels, and produces Thrust by pushing against the ground. The system provides the vehicle with great overland travel ability, *and* stability. It effectively has a both a Balance and Climb score equal to it's Quality x (1/2 Mass).

Wheels (ground only): This is a series of wheels attached directly to a motive engine. The wheels push against the ground in order to produce Thrust. Not as adaptable as Tracks, this drive system is almost as stable. It effectively has a Balance score equal to it's Quality x (1/3 Mass), and a Climb score equal to it's Quality x (1/4 Mass). It's cheap price and low weight make it preferred for vehicles that have to operate in urban areas, despite it's flaws.

Lift Systems

Lift: Multiply all the statistics on the table below by the maximum amount of Mass the vehicle needs to be able to Lift out of a 1g gravity field. Heavier or lighter gravity field require proportionately higher and lower amounts of Lift. Escape velocity from a gravity well equals the well's rating in g's, squared, times 10: (g x g) x 10. This can be gained from any combination of Lift system and Drive system (using the vehicle's Speed/5 as more Lift), but needs to be maintained for at least 10 miles x g x g in order to reach orbit.

TABLE 8-17: VEHICLE LIFT SYSTEMS

Lift Type	Wt in lb	Options	Base Price	Hardness	Hit Points	Complexity	Charge Use
Anti-Grav	5	Quality	1,000 x Quality	10	13 x Quality	Amazing	1 Charge/min
Hover System	4	Quality	200 x Quality	15	32 x Quality	Average	2 Charge/rd
Lifting Body	100	1/2 Quality	20 x Quality	-- Counts as Chassis --		Average	None
Ornithopter	300	1/2 Quality	600 x Quality	15	1,714 x Quality	Great	4 Charge/rd
Rotor	5	1/2 Quality	100 x Quality	15	40 x Quality	Basic	1 Charge/rd
Vectored Thrust	20	Quality -1	350 x Quality	15	160 x Quality	Average	2 Charge/rd
Wings	200	1/2 Quality	10 x Quality	-- Counts as Chassis --		Basic	None

TABLE 8-18: VEHICLE LIFT SYSTEM OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Fuel Efficient	1 per	+25% per
Gravity Vector	4	+100%
Light System	2 per	+20% per
Tough System	1 per	+10% per

Anti-Grav: This system allows for up to it's rating in Thrust to be converted to Lift. Only Thrust from Anti-Grav drives can be diverted in this manner.

Hover System: Ducted fans pull air from above the vehicle, heat it, and expel the hotter gasses below the vehicle. This works on a similar principle to the Rotor Lift System, but provides more Lift in a smaller area.

Lifting Body: Provides Lift equal to the vehicle's current Speed/3, within a 1a atmosphere. Proportionately denser and thinner atmospheres provide proportionately more or less lift. Cannot provide more lift, before adjustment for atmospheric density, than it is rated for. Requires Advanced Streamlining Chassis option.

Ornithopter: This system of rapidly-beating membranous wings provides both Lift *and* Thrust! At the pilot's whim, he can direct some or all of the wings' Lift into Thrust. These devices only work inside of an atmosphere, and provide proportionately more or less Lift/Thrust in a thinner or lighter atmosphere than 1a.

Vectored Thrust: This system allows for up to it's rating in Thrust to be converted to Lift. Only Thrust from Jet Engine and Rocket drives can be diverted in this manner. In space, a Vectored Thrust Lift System improves a vehicle's Maneuverability by one step if it can displace sufficient Thrust to provide Lift equal to the vehicle's Mass or more. Such systems do not normally provide Lift inside of a gravity well.

Wings: Provides Lift equal to the vehicle's current Speed/5, within a 1a atmosphere. Proportionately denser and thinner atmospheres provide proportionately more or less lift. Cannot provide more lift, before adjustment for atmospheric density, than it is rated for. Requires Basic Streamlining or Radical Streamlining Chassis option.

Electronics

Complexity: Varies.

TABLE 8-19: VEHICLE ELECTRONICS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity	Charge Use
Communicator	R x 0.5	1/2 Quality	R x Q x Q x25	5	R x 1.2 x Quality	Basic	Rating in Charge/min
Computer	---------- not including Operating System ----------						
"Datasheet	NA	Quality -5	Q x Q x250	2	1	High	1 Charge/24 hrs
"Pocket	0.5	1/2 Quality	Q x Q x100	5	1	Great	1 Charge/12 hrs
"Case	10	Quality -1	Q x Q x50	10	2 x Quality	Average	1 Charge/6 hrs
"Major System	500	Quality	Q x Q x5000	15	100 x Quality	Average	1 Charge/hour
ECM Generator	Rating x 10	1/2 Quality	R x Q x Q x50	10	60 x Quality	Average	Rating in Charge/rd
ECCM Generator	Rating x 30	1/2 Quality	R x Q x Q x250	10	180 x Quality	Average	Rating in Charge/rd
Neural Jack Point	0.5	Quality -5	Quality x 5	2	Quality	Average	Negligible
Sensors	Rating x 20	1/2 Quality	R x Q x Q x100	10	R x 120 x Quality	Average	Rating in Charge/min

TABLE 8-20: VEHICLE ELECTRONICS OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Fuel Efficient	1 per	+25% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Communicator: This is the same as a personal Communicator from the Gear section. The one in the Gear section has a Rating of 1, while a Communicator built into a vehicle can take advantage of the extra energy and space to have a much broader range. All ranges for a Communicator are multiplied by it's Rating.

Computer: A personal computer system that has been built into a vehicle in order to help run systems on that vehicle. It can be attached to the vehicle's piloting controls and loaded with a Robotic OS in order to give the vehicle the ability to drive it's self.

ECM Generator: This is an array of full-spectrum EM generators that produce the electronic equivalent of white noise. While in opperation it adds it's Quality to it's DC when being fired upon by any vehicle, and to the Spot check DC of sensors to detect it. It does have a down side in that it's protection only extends to the limit of the system's range, after which it is *subtracted!*

Type of Area	*Range Formula*	*Example*
Urban	Range x Range x 25 ft	Downtown city
Crowded	Range x Range x 50 ft	Typical Forest
Sparse	Range x Range x 100 ft	Rolling hills
Clear	Range x Range x 250 ft	Open fields
Space	Range x Range x 1 mile	Hard vacuum

ECCM Generator: This system uses a mixture of electronic signal de-scramblers and emitted EM signals to break through the white noise created by an ECM Generator. It has the same range as an ECM Generator, and in the areas where the two systems overlap the Quality of the ECCM Generator negates an equal amount of Quality for the ECM Generator (making it easier for the vehicle carrying the ECCM Generator to fire on and detect things within that area). Unlike an ECM Generator, this system provides *no* protection to the vehicle *at all!* instead it adds half it's Quality to the attack rolls and Spot checks of any other vehicle trying to attack or detect it!

Neural Jack Point: This is a cable with a Neural jack connector at one end, and the other patched into one or more electronic systems on the vehicle. A vehicle must have at least one Computer to use this device, and the computer must be running some sort of Operating System. All the systems the Computer is connected to can be operated mentally by the user when he plugs the cable into his Neural Jack, providing a skill bonus to all of his skill checks for them equal to the Quality of his Neural Jack.

Sensors: Sensors provide the vehicle with a Listen, Search, and Spot score equal to their Rating. Penalties for atmospheric conditions that apply to these skill checks are divided by the system's Quality. Sensors are unaffected by lighting conditions, effectively having Blindsight for it's entire range as well as Low-Light Vision. The vehicle's ratings in these skills is reduced by -1 for every 20 ft x Quality between it and the thing it is using the skills to detect. If it is trying to detect another vehicle, it gets to add the Rating of that vehicle's Sensors to it's skill check to do so, detecting the energy they give off.

A vehicle's Sensors can run in passive mode in order to minimize their ability to be detected. While in passive mode they lose Blindsight, and their range between -1 penalties drops to 10 ft x Quality.

A vehicle must be running a Robotic OS in it's Computer in order to act on what it's Sensors detect. Even if id does, it still displays the results of the Sensor's skill checks to anybody inside who is curious enough to look and authorized to do so.

Life Support System

Complexity: varies

Maintenance: Life support systems are not entirely self-sufficient. Impurities and toxic build-up eventually cause them to fail without periodic maintenance. The maintenance period is 1 month per point of Quality, after which the unit must receive standardized maintenance parts or it ceases to function. Switching out parts for maintenance is a Repair DC 10 check that takes only a minute for each unit. The price of maintenance parts is 1% of the unit's cost.

TABLE 8-21: VEHICLE LIFE SUPPORT SYSTEMS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Charge Use	Complexity
Air Tank	2 x lbs	1/2 Quality	10 x Quality x lbs	10	1 x Quality x lbs	NA	Basic
Full Support	55/man	1/2 Quality	100 x Quality x man	10	330 x Quality	2 Charge/day	Great
Hydroponics Garden	50/man	1/2 Quality	50 x Quality x man	10	300 x Quality	1 Charge/day	Average
Liquid Recovery	5/man	1/2 Quality	25 x Quality x man	10	30 x Quality	1 Charge/day	Average
Oxygen Recycler	1/man	1/2 Quality	20 x Quality x man	10	6 x Quality	1 Charge/day	Average

TABLE 8-22: VEHICLE LIFE SUPPORT SYSTEM OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Air Tank: This is simply an air tanks containing the active atmospheric component that the creature operating the vehicle needs to survive, typically oxygen or carbon dioxide. Every lb of gas it contains allows one Medium-size creature to breathe for one hour, or a Small-size creature to breathe for two.

Full Support: This is a combined unit Hydroponics Garden, Liquid Recovery, and Oxygen Recycler that produces enough of everything to keep one Medium-size creature alive indefinitely, or two Small-size creatures.

Hydroponics Garden: This tank contains filtration systems and simple protein-generating bacteria that process physical waste into edible (but bland as hell) food. It produces enough from a single medium-size creature's waste to keep a Medium-size creature fed indefinitely, or two Small-size creatures. Every day a being subsists on the goop, they must make a Constitution check with a DC equal to 20-Quality or be *sickened* for the following day.

Liquid Recovery: This complicated filtration and extraction system processes sweated water vapor and bodily waste water into drinkable fluid. It produces enough from one Medium-size creature to slake the thirst of a Medium-size creature indefinitely, or two Small-size creatures.

Oxygen Recycler: This small box circulates atmosphere through it and either breaks down carbon dioxide into oxygen and carbon, or combines them into carbon dioxide, as the creature it was designed to support requires. It produces enough breathable atmosphere from one Medium-size creature's exhalations to keep a Medium-size creature from suffocating indefinitely, or two Small-size creatures.

Weapon Pod

Complexity: Varies

Charge Use: All weapon mounts other than Fixed Aim use up their weight in points of Charge every hour.

Ammo/Weapon: The weight of the amount of ammunition for a kinetic weapon such as a slug-thrower, needler, or missile launcher; or the weight of the physical weapon itself. These totals include the original item's weight.

TABLE 8-23: VEHICLE WEAPON PODS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity
Ammo	Ammo lbs x 5	1/2 Quality	Ammo lbs x 5 x Quality	10	Ammo lbs x 75 x Quality	Simple
Ammo Feed	Ammo lbs x 2.5	1/2 Quality	Ammo lbs x 2 x Quality	10	Ammo lbs x 18.75 x Quality	Basic
Fixed Aim	Weapon lbs x 2	1/2 Quality	Weapon lbs x 2 x Quality	10	Weapon lbs x 30 x Quality	Simple
Tight Arc	Weapon lbs x 5	1/2 Quality	Weapon lbs x 5 x Quality	10	Weapon lbs x 32.5 x Quality	Basic
Turret	Weapon lbs x 20	1/2 Quality	Weapon lbs x 25 x Quality	10	Weapon lbs x 120 x Quality	Average
Wide Arc	Weapon lbs x 10	1/2 Quality	Weapon lbs x 10 x Quality	10	Weapon lbs x 175 x Quality	Basic

TABLE 8-24: VEHICLE WEAPON POD OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Ammo: Ammunition container that feeds into a vehicle-mounted weapon. If reduced to 0 hit points, all the ammunition it retains "cooks off", and deals it's remaining damage to every single system in the vehicle! Needler ammunition only deals it's remaining damage to the vehicle's electronics components.

Ammo Feed: A feed line from a central Ammo Weapon Pod to one of the vehicle's weapons that uses the exact same type of ammunition. This system allows for multiple weapons to use the same common pool of ammunition.

Fixed Aim: This weapon can only fire in a straight line, so attacks can only be made on targets within that line.

Tight Arc: This weapon can fire on targets within a 90-degree arc, the same as a "cone" template.

Turret: This weapon can fire anywhere except the 90-degree arc opposite of it. The designer chooses the firing arc opposite it, and one other of his choice, and the turret cannot fire into those arcs.

Wide Arc: This weapon can fire on targets within a 180-degree arc, half the battle-field.

TABLE 8-25: VEHICLE-SPECIFIC WEAPON CHASSIS

Vehicle Weapons	Size	#Dice	Base Cost	Range	Weight	Option Max
Projector	Medium	10	1,000 x Q	100	25	10 + Quality
Array	Large	20	1,500 x Q	200	100	10 + Quality
Driver	Huge	40	5,000 x Q	500	250	10 + Quality

Vehicle Weapons: These devices are used with the regular rules for custom weapons. The only exception is that they require a successful Pilot skill check to use when in a vehicle, and are considered to be Exotic Weapons (by type) when being used outside of a vehicle.

Slug Throwers have an ammunition weight of 0.025 x #Dice per round, and cost 0.01 x #Dice credits per round. Needlers have an ammunition weight of 0.008 x #Dice per round, and cost 0.01 x #Dice credits per round. Charged Plasma weapons use up twice the #Dice in points of Charge for each shot, but can only be used in an atmosphere of at least 0.2a. Lasers use up 1 Charge x #Dice per shot. Gyroc weapons are not possible, but missiles are. Missiles can carry 1 lb of explosive material for ever #Dice of the weapon, increase the Base Cost by 100%, have a x2 Range multiplier, a x1.5 Weight multiplier, and each missile weights +200% more than the explosive it carries as well as costs 10 credits per lb of non-explosive weight.

Vehicle weapons have the "External Feed" option automatically. They have no internal ammunition capacity.

Special Systems

Complexity: Varies

Mass Max: The largest size vehicle, by Mass, that the system can hold.

TABLE 8-26: VEHICLE SPECIAL SYSTEMS

System	Wt in lbs	Options	Base Price	Hardness	Hit Points	Complexity
Artificial Gravity	Mass x 100	1/2 Quality	Mass x 1,000 x Quality	15	Mass x 266 x Quality	Amazing
Launch Deck	Mass Max x 3,000	1/2 Quality	Mass Max x 2,000 x Quality	20	Max Mass x 3,000 x Q	Average
Mechanical Arm	Mass x 50	1/2 Quality	Mass x 500 x Quality	15	Mass x 40 x Quality	Average
Surgical Bay	5,000	1/2 Quality	5,000 x Quality	10	3,750 x Quality	Basic
Vehicle Bay	Mass Max x 2,000	1/2 Quality	Mass Max x 1,000 x Quality	15	Max Mass x 2,000 x Q	Basic

TABLE 8-27: VEHICLE SPECIAL SYSTEM OPTIONS

Options	Points	Price Mod
Easy Repair	1 per	+10% per
Light System	2 per	+20% per
Tough System	1 per	+10% per

Artificial Gravity: This system produces a 1g field of gravity within the vehicle. It can be oriented to provide a common "down", or modulated in order to negate up to 1g of acceleration or external gravity. It uses up an amount of Charge equal to the Mass of the vehicle x 10 per round of operation. An entire ship must be equipped with an artificial gravity system, not just parts of it, in order to maintain hull integrity, or else the field crushes it.

Launch Deck: This is a kind of airlock for smaller vehicles. It can take a smaller vehicle from inside a Vehicle Bay and allow it to depart the vehicle, or allow an outside vehicle to enter, without endangering the hull integrity of either vehicle. A Move action from the launched vehicle is required in order to launch. This system only has 10% of the amount of Hit Points normal for it because it is mostly empty space!

Mechanical Arm: Has a Strength score equal to the vehicle's (Mass x Mass) + 10. Each point of Strength uses up a point of Charge every minute of the arm's operation. The arm's has a Max Dex score equal to it's Quality -1. It has a human-like manipulator on the end, but the manipulator can be replaced with another system or device, which reduces the arm's Base Price by half.

Surgical Bay: A surgical suite similar to a Medical Workshop, only built *inside* of a vehicle! This system only has 10% of the amount of Hit Points normal for it because it is mostly empty space!

Vehicle Bay: A specialized kind of cargo hold that can hold and retrieve smaller vehicles. It must be attached to a Launch Deck in order to function properly if used for internal vehicle storage. Moving a stored vehicle from a Vehicle Bay to a Launch Deck, or storing one, costs 10 points of Charge and takes one round per Mass of the stored vehicle. It can be coupled with a Cargo Door of 5 ft square per point of Mass of the Vehicle Bay in order to create a covered attachment point for external vehicles. Such attachment points require a Move action from the host vehicle in order to launch each attached vehicle. This system only has 10% of the amount of Hit Points normal for it because it is mostly empty space!

Power Plant

Complexity: Varies

Charge: Power Plants produce units of Charge each round. A single point of Charge a round is also ten a minute, 600 an hour, and 14,400 in a 24-hour period.

TABLE 8-28: VEHICLE POWER PLANTS

Material	Wt in lbs	Options	Base Price	Hardness	Hit Points*	Complexity	Fuel Use*
Anti-Matter	Charge x 1.8	Quality	Charge x Quality x 50	20	6 x Quality	Amazing	0.01 lb/yr
Charge Pack	Rating/100	1/2 Quality	Rating x Quality x 1	5	(lb/4) x Quality	Basic	NA
Combustion	Charge x 10	1/2 Quality	Charge x Quality x 10	10	75 x Quality	Basic	876 lb/yr (0.1 lb/hr)
Fission	Charge x 4	Quality	Charge x Quality x 20	15	32 x Quality	Average	0.5 lb/yr
Fusion	Charge x 3	Quality	Charge x Quality x 30	15	17 x Quality	Great	0.1 lb/yr
Rad Conversion	Charge x 10	Quality	Charge x Quality x 30	15	40 x Quality	High	0.05 lb/yr
Solar Array	Charge x 5	1/2 Quality	Charge x Quality x 2	5	12.5 x Quality	Basic	light
Thermodyne	Charge x 8	Quality	Charge x Quality x 20	15	80 x Quality	Basic	NA

* On the table Hit Points and Fuel Consumption is per point of Charge it produces in one round of operation.

TABLE 8-29: VEHICLE POWER PLANT OPTIONS

Options	Points	Price Mod
Direct Feed	1	+0%
Easy Repair	1 per	+10% per
Fuel Efficient	1 per	+25% per
Light System	2 per	+20%
Tough System	1 per	+10% per

Anti-Matter: Doubtlessly the most efficient power source in existence. This device is fueled by converted heavy isotopes, typically the cast-offs of fission plants. The converted matter is held in a magnetic field that keeps it isolated from the rest of the device, preventing a catastrophic reaction. Hydrogen is then fed in minute doses to the vacuum around the anti-matter, creating an anti-matter reaction. The reaction creates reconverted hydrogen that is violently expelled and collected for future reactions, as well as high-energy waves that are converted into electrical power. When not being used to generate power, it can be retuned to turn fission-waste into anti-matter at the same rate it consumes anti-matter. It takes 24 hours to retune it for this purpose, and just as long to reverse the process so it can be used to generate power again.

Charge Pack: This is the same as the personal gear item of the same name. It is often used to supply a source of back-up power for vehicles, or energy to fire their weapons. Excess energy from the vehicle's other Power Plants can be used to recharge the Charge Pack. A Charge Pack can hold one Charge of energy for every Rating point, multiplied by it's Quality. Charge packs do not consume fuel, so they cannot have the Fuel Efficient Option.

Combustion: This engine uses cheap oxygen-enriched volatile chemicals (or feeds external oxygen into such chemicals) to power a rotary piston set-up. The motive energy from this is either turned into motive power directly, or converted by means of an attached generator into electrical power, and often both. The gasses it expels have very little force, but can be used to produce 1% of the engine's normal Thrust if coupled with a rocket drive.

Fission: This power plant uses heavy metal isotopes, typically either Uranium or Plutonium, at a state below total nuclear decay in order to convert the emitted energy and particles into electrical power. Early forms of this reactor used water heated by the nuclear decay to drive turbines, but this version uses a system analogous to a photovoltaic cell in order to convert the emitted energy *directly* to electrical power! Some energy still escapes in the form of heat, but no radiation or high-energy waveforms leave the reaction chamber.

Fusion: Early forms of this reactor used "heavy water" condensed on voltaic plates to create nuclear fusion. The fusion gave off heat, some high-energy waves, and large amounts of hydrogen which could then be burned in a Combustion plant. Modern forms use a combination of radioactive isotopes such as uranium or plutonium, as well as tin and magnesium. The reaction chamber is totally reflective to particulate radiation, converting high-energy waves into electrical power. Electrostatic pressure within the chamber builds until the decayed isotope atoms fuse with the magnesium atoms, forming gold atoms and giving off even more high energy waves in the process. It is this technology that has lead to gold becoming about as valuable as steel, given that it is a *waste product* of power generation!

Rad Conversion: This reactor is a relative of the fission plant, only instead of letting the radioactive decay proceed at a sedate pace, it uses a pulsing electromagnetic charge to stimulate rapid half-life. This causes the isotope to decay to a non-radioactive state much faster than normal, and converts the emitted energy to electrical power.

Solar Array: This is am array of photovoltaic cells placed above the vehicle's armor. Any attack that hits this system *is not impeded* by the vehicle's armor! The maximum amount of Charge this power plant can produce is limited by two factors: the vehicle's Mass and the strength of the ambient light. A Solar Array Power Plant can not have a higher Charge rating than the vehicle's Mass. This is the amount of Charge it produces on a regular cloudless summer day at noon. Every level of illumination below this (regular light, subdued, shadow, and dark) reduces the amount of Charge it can produce by 25%.

Thermodyne: This power system derives Charge from waste heat. When coupled with a Combustion, Fission, or Fusion Power Plant it can produce 1 Charge for every 10 Charge the other power plant produces, up to the Thermodyne's maximum Charge rating. It can do the same for the Thrust provided by Jet and Rocket Drive Systems. One Thermodyne Power Plant can be linked to multiple systems.

Waste Mass

Not a real component, this is the left-over Mass from the total Mass of the vehicle's components, and the design Mass the vehicle had at the beginning of the design process. The vehicle's designer can choose to do two things with this waste Mass: keep it internal to the Chassis, or turn it into external cargo capacity. After the vehicle is built, such waste space can also be used for adding or expanding systems later.

If it is kept internal to the Chassis it both protects the vehicle's systems from being damaged and makes the vehicle easier to repair. The waste mass takes up it's normal percentage on the random hit location table for the vehicle, with hits to that area only harming the *armor*, but not any of the systems! The extra space inside the vehicle also makes it easier to repair and build in the first place, reducing the DC of both Craft (vehicle) and Repair checks by -1 for every full unit of Mass wasted in this manner!

If turned into external cargo points, the vehicle's Size modifier is based on it's *actual* Mass (including any cargo attached to these points), rather than it's *designed* Mass. External cargo also reduces the vehicle's Speed in an atmosphere, as it creates more drag. Subtract the percentage of the vehicle's Design Mass that is dedicated to external cargo from the vehicle's final Speed.

OPTION DESCRIPTIONS

Basic Streamlining: This Chassis Option improves it's Speed in an atmosphere by shaping the Chassis to produce less drag. It increases the weight of the Chassis by adding in the extra bracing it needs to maintain it's integrity in the new shape, but the same shape makes it more fragile. Over all, it's Hit Points remain unaltered. Add +10% to the weight of the Chassis, and +25% to it's final Speed in an atmosphere (2 Options, +25% Price).

Direct Feed: A Power Plant with this Option is designed to optimize it's power output to the needs of the particular system it has the Direct Feed to. This makes the power it puts out unusable by other systems, but the one it feeds directly into is treated as if the Power Plant produced twice it's regular amount of energy. Treat the Power Plant as if it produced twice as much Charge, but only for purposes of the designated system it has the Direct Feed to (1 Option, +0% Price).

Easy Repair: This system is built modularly, so that broken components can be easily fixed or replaced. This Option can be taken multiple times. Reduce the Repair DC to fix the system by -1 for every time this Option has been taken (1 per Option, +10% per Price).

Fuel Efficient: This system is designed to recycle as much waste energy as possible, so that it requires less energy or fuel to run. This Option can be taken multiple times, up to five total. Reduce it's Fuel Consumption (or penalties to output) by 10% for each time it is taken (1 per Option, +25% per Price).

Gravity Vector: This Vectored Thrust Drive System is designed to function both in *and outside of* and atmosphere. The Vectored Thrust Lift System provides *both* Lift in a gravity well, *and* extra maneuverability in space (4 Options, +100% Price).

Light System: This system is built with light-weight but stronger materials. This Option can be taken multiple times, up to five total. Reduce the system's weight, but not it's Hit Points, by 10% for each time it is taken (2 per Options, +20% per Price).

Radical Streamlining: Like Basic Streamlining, only more so. it is not compatible with the Basic Streamlining Option. Add +30% to the weight of the Chassis, and +50% to it's final Speed in an atmosphere (5 Options, +75% Price).

Tough System: This system is built from sturdier materials placed in a more stable configuration. It makes the system harder to injure. This Option can be taken multiple times. Each time it is taken the system's Hardness is increased by +2 (1 per Option, +10% per Price).

Armor-Only Options

The increases to Damage Reduction and Energy Resistance from these Options are added tog ether for each type of Damage (bludgeoning, slashing, or piercing), and energy (fire, electricity, radiation) before being applied. When applied, round all Damage Reduction and Energy Resistance values *up!*

Coolant Packs: The armor is built with internal heat-disbursing sections that draw heat away from one spot, to help prevent the armor from being burned through. This Option can be taken multiple times. Each time it is taken the armor's Energy Resistance to fire (which includes lasers) is increased by +10% (2 per Options, +25% per Price).

Extra Plating: The armor has been built with extra overlapping plates, which slide when impacted in order to better distribute kinetic energy over a larger area. This Option can be taken multiple times. Each time it is taken the armor's Damage Reduction to Bludgeoning attacks (which includes slugs-thrower rounds) is increased by +10% (1 per Option, +25% per Price).

Ghost Cloak: This system imprints multi-spectrum passive imaging scanners and transmitters all over the vehicle's armor, as well as pin-sized dedicated computers. When it is active it provides Concealment to the vehicle, including being detected by active Sensor Systems. This means that all successful attack rolls against the vehicle have a 20% chance of missing, and there is a -5 penalty to Search for or Spot the vehicle. Every round of operation uses up an amount of Charge equal to the vehicle's Design Mass (10 Options, +500% Price).

Heavy Carbon Fibers: The vehicle's armor is impregnated with long-chain carbon-iron fiber strings, which helps prevent it from being penetrated by edged weaponry. This Option can be taken multiple times. Each time it is taken increases the vehicle's Damage Reduction to Slashing and Piercing attacks by +5% (1 per Option, +50% per Price).

Lighter Materials: The armor is produced with cutting-edge lighter compounds than it is normally manufactured with. While lighter, the bonds of these compounds are much more stable than regular materials, and still provides the same amount of protection. This reduces the armor's Weight by 25%, but has no effect on it's protection (3 Options, +100% Price).

Micropocket Weave: The armor is formed with honeycomb-like layers of compacted material surrounding a small gas bubble. The formation of these layers is just as strong as regular armor, but has the effect of helping to deflect piercing attacks when it is struck, causing them to hit less true and therefore reducing their chances o penetrating the armor. This Option can be taken multiple times. Each time it is taken increases the armor's Damage Reduction to Piercing by +15% (1 per Option, +100% Price).

R.A.M. Lining: The armor is constructed with one or more layers of Radiation Absorbent Material, which expands slightly when it comes into contact with electromagnetic radiation, and expels it outwards as heat energy by rapidly contracting. This helps to protect the vehicle from all forms of hazardous energy, but the heat emission ends up negating any Sensor-defeating capacity this Option would provide. This Option can be taken multiple times. Each time it is taken increases the vehicle's Energy Resistance to all forms of energy by +5% (2 per Options, +100% per Price).

VEHICLE GEAR LEVEL

Unlike other forms of combat-usable gear, vehicles do not count towards a character's Gear Level. Instead they modify the Effective Character Level directly! To find the modifier for a vehicle, simply divide it's final Cost by 1,000 and round up. This is also the amount you *add* the Challenge Rating of anybody you defeat who is using a vehicle.

The final result of this is that if two groups are using identical vehicles, the victorious group gets the same amount of Experience Points as they would if they had defeated the other group *without either of them using vehicles!*

VEHICLES AND PSIONICS

Through the use of an Imaging Chamber a psionic being can be wired into a ship, treating the entire vessel and it's contents as if it were his own body. This allows them to affect the vessel, it's cargo, and it's crew simultaneously with his psionic powers. The stretching of his central nervous system to incorporate the vehicle requires that it have a functioning computer system, and imposes a -10 penalty to all of his psionic skill checks when he does so. The Neural Jack he must use does not provide any skill bonuses for psionic skills used in this manner.

Mass attached to the outside of the vessel, such as external cargo, attached pods, and trailers, does not count as part of the vessel. This means that the psionics being who is trying to affect the entire ship it is wired into must have enough regular mass he can affect to encompass the extra weight, or the effect fails automatically.

Fetching

The Psionicist can Snatch and Jump objects into or from the ship's internal space, provided he can see both the object and the area of the ship through the ship's electronic system.

He can attempt to Phase Dodge the entire ship in order to evade an attack He can Phase the entire vessel, but while in that state anything ejected from the vessel (including energy) cannot interact with normal space/time, manning that attacks cannot deal damage and the vessel's velocity or trajectory cannot be altered.

Hop is used to transit interstellar distances, and to cover extreme distances within stellar gravity wells. Hop Other is often used to move small but inconveniently placed asteroids from near the ship. The use of these two feats is the only time the character receives a skill bonus from the vessel's Imaging Chamber, equal to it's Quality.

If the vessel is altering it's current Velocity, the psionic being can use his Rapidity feat to add to it's Speed rating, but only if it is trying to alter it's Velocity normally.

Psychokinesis

Other than the occasional use as a method of connecting docking couplings, this type of psionics is very hard to affect vehicles with. Sometimes powerful Movers will pilot small vehicles, fueling their movement by Psychokinetic power alone. This can only be done if they have enough weight capacity to affect it normally.

It is possible for multiple psionic beings to act in concert to exert enough force to move even large vessels, every 1,000 lbs of weight moved counts as a point of Thrust.

If ramming another vehicle, they can spend up to the vehicle's Mass in Vitality points in order to use Impact to deal +1d6 damage per Vitality spent.

Telepathy

When using an Imaging Chamber, a psionicist can treat any camera wired into the chip's computer as if it where his own eyes for purposes of line-of-sight, but not for range. That is still measured from his physical body inside the Imaging Chamber.

NINE: COMBAT

HOW COMBAT WORKS

Combat is cyclical; everybody acts in turn in a regular cycle of rounds. Combat follows this sequence:

1. Each combatant starts out flat-footed. Once a combatant acts, he or she is no longer flat-footed.
2. Determine which characters are aware of their opponents at the start of the battle. If some but not all of the combatants are aware of their opponents, a surprise round happens before regular rounds of combat begin. The combatants who are aware of the opponents can act in the surprise round, so they roll for initiative. In initiative order (highest to lowest), combatants who started the battle aware of their opponents each take one action (either a standard action or a move action) during the surprise round. Combatants who were unaware do not get to act in the surprise round. If no one or everyone starts the battle aware, there is no surprise round.
3. Combatants who have not yet rolled initiative do so. All combatants are now ready to begin their first regular round of combat.
4. Combatants act in initiative order (highest to lowest).
5. When everyone has had a turn, the combatant with the highest initiative acts again, and steps 4 and 5 repeat until combat ends.

COMBAT STATISTICS

This section summarizes the statistics that determine success in combat, and then details how to use

ATTACK ROLL

An attack roll represents your attempt to strike your opponent on your turn in a round. When you make an attack roll, you roll a d20 and add your attack bonus. (Other modifiers may also apply to this roll.) If your result equals or beats the target's Defensive Class, you hit and deal damage.

Automatic Misses and Hits: A natural 1 (the d20 comes up 1) on an attack roll is always a miss. A natural 20 (the d20 comes up 20) is always a hit.

Bonus Damage: The amount your attack roll exceeded the Defensive Class you needed to hit is added to your damage roll for the attack. This represents your hitting a particularly vulnerable or weak spot on the target. It cannot be more than the maximum regular amount of damage from the attack (damage dice + modifiers).

Special Damage: If your attack roll was a natural 20, and you beat the target's Defensive Class by at least 5, then you have a chance of either staggering or crippling the target. There is also a chance of triggering a Special Damage effect if your target takes at least half his Constitution score in damage from one attack (this is after Damage Reduction and Energy Resistance are factored in). The target must make a Fortitude save against a DC equal to 10+ the damage that got past his Damage Reduction or Energy Resistance. If he passes the save, then he is only stunned for one round, unable to take any actions. If he failed the save, then he takes a special type of damage based on the type of attack. If the attack was for Vitality damage, then the failed saving throw causes them to lose their next action, and a successful saving throw causes them to have a -2 penalty on all rolls for one round, instead of any other special damage effects.

Bludgeoning: The target breaks a bone, or several! The effect of this is to limit the amount of weight they carry, and force they can apply. For every 5 damage, or part thereof, they take one point of Strength Drain!

Bullet Wound or Piercing: Bleeding wound! The character's wound is deep and gaping open, causing them to bleed profusely. For every 5 damage, or part thereof, they lose an additional hit point at the end of every round! A successful Heal DC 15 check, or even one restored Hit Point, prevents the wound from further bleeding.

Electricity: Neural *shock*! The character's central nervous system has received a nasty jolt, and is impaired by it. For every 5 damage, or part thereof, they take one point of Dexterity and Intelligence damage.

Explosion: Hearing Impairment! The character's hearing has been severely impaired by the explosion. For every 5 damage, or part thereof, they are Deaf for one minute and at -2 to all their rolls for one round.

Fire (Heat): Heat Prostration! The character's ability to exert himself, and his energy level, are greatly reduced. For every 5 damage, or part thereof, the target takes one point of Strength damage and 1d6 Vitality damage.

Fire (Laser): Blindness! The reflected laser light has overloaded the character's optic nerves, causing them to temporarily become blind. For every 5 damage, or part thereof, the character is blinded for one round (everything has full concealment against him), and then has his vision impaired for an equal amount of time (everything ahs concealment against him).

Slashing: Hamstrung! One of the character's limbs (chosen at random) has had it's tendons sliced, reducing it's effectiveness. If the damage dealt was less than half their Constitution, then the limb is impaired (-2 on all rolls). If the damage dealt was equal to or greater than half their Constitution, then the limb has been crippled (no rolls allowed). If the damage was GREATER than their Constitution, then the limb was SEVERED! Make a Reflex save against a DC of 15. If passed, the limb is useless but only small portion of it was lost (hand, foot, outer edge of a wing, ect) , and the character bleeds at a rate of 1 points round (see Bullet Wound or Piercing effect).. If failed, then the ENTIRE limb is gone, and the character bleeds at a rate of 2 points round (see Bullet Wound or Piercing effect).

Ranged Attack Scattering: If a ranged attack misses, then you need to determine what square it *does* hit in. This is especially important when using explosive weapons or shooting into a group, as you can easily still cause damage to *somebody* on a missed attack roll! To determine where the attack actually lands, you need to know the direction and distance. You find the direction by rolling a d8, and looking at the target's location. A roll of a "1" indicates the attack was off in the direction of the

attacker, with the other numbers indicating a rotation around the target in a 45-degree rotation. So a "4" would be behind the target, and so on. The distance is easy, just take the amount the attack roll missed by and multiply it by 5 ft for every Range Increment of the attack (including the first one). This makes missed attacks with explosives especially hazardous, as the *attacker* can end up in the blast area on a particularly bas roll! If there is no path to the target area directly, then the attack hits the obstacle and stops. Any creature in the square with the new attack is treated as if attacked with a To-Hit bonus of +0. Scattered shots receive no bonus damage fro a high attack roll, but can still cause a Special Damage effect on a natural roll of 20.

Full Auto Scattering: Shots from a full-auto weapon that do not hit scatter in a different manner. Instead of their distance from the target being measured by the failure of the attack roll, they are measured by a random die. Roll 1d6 for the first group of five shots, adding 1d6 for each group after the first. Round the result up to the nearest multiple of 5, then multiply by the range increment. The result is the amount of feet the 5-shot group scatters by.

Attack Bonus

Your attack bonus with any weapon is:

Base Attack bonus + Dexterity modifier + size modifier

For ranged attacks, you also apply a -2 penalty per Range Increment of the weapon between you and the target.

TABLE 9-1: SIZE MODIFIERS

Creature Size	Combat Modifier	Hit Point Mod	Death Level
Fine	+8	-20	-0
Diminutive	+4	-15	-2
Tiny	+2	-10	-5
Small	+1	-5	-8
Medium	+0	+0	-10
Large	-1	+10	-15
Huge	-2	+25	-25
Gargantuan	-4	+50	-50
Colossal	-8	+100	-100

Defensive Class

Your Defensive Class (Defensive Class) represents how hard it is for opponents to land a solid, damaging blow on you. It's the attack roll result that an opponent needs to achieve to hit you. Your Defensive Class is equal to the following: 10 + Dexterity modifier + size modifier + Miscellaneous modifiers.

Note that armor limits your Dexterity bonus, so if you're wearing armor, you might not be able to apply your whole Dexterity bonus to your Defensive Class.

Sometimes you can't use your Dexterity bonus (if you have one). If you can't react to a blow, you can't use your Dexterity bonus to Defensive Class. (If you don't have a Dexterity bonus, nothing happens.)

Other Modifiers: Many other factors modify your Defensive Class.

Deflection Bonus: High-tech or psionic deflection effects ward off attacks and improve your Defensive Class.

Dodge Bonuses: Some other Defensive Class bonuses represent actively avoiding blows. These bonuses are called dodge bonuses. Any situation that denies you your Dexterity bonus also denies you dodge bonuses. (Wearing armor, however, does not limit these bonuses the way it limits a Dexterity bonus to Defensive Class.) Unlike most sorts of bonuses, dodge bonuses stack with each other.

Kneeling/Prone: A character can kneel or stand from kneeling as if moving 5 ft. Dropping Prone takes a free action, but a move-equivalent action to stand back up from (or a free action if they pass a Tumble DC 15 check). Kneeling characters are at +1 to DC against ranged attacks, and -1 against melee attacks. Prone Characters are at +4 DC against ranged attacks, and get +1 to hit with Ranged Attacks, but are at -4 DC against Melee attacks and -4 to their melee attack rolls.

DAMAGE

When your attack succeeds, you deal damage. The type of weapon used determines the amount of damage you deal. Effects that modify weapon damage apply to unarmed strikes and the natural physical attack forms of creatures.

Damage reduces a target's current Hit Points.

Minimum Damage: If penalties reduce the damage result to less than 1, a hit still deals 1 point of damage.

Strength Bonus: When you hit with a melee or thrown weapon, including a sling, add your Strength modifier to the damage result.

Off-Hand Weapon: When you deal damage with a weapon in your off hand, you add only 1/2 your Strength bonus.

Wielding a Weapon Two-Handed: When you deal damage with a weapon that you are wielding two-handed, you add 1-1/2 times your Strength bonus. However, you don't get this higher Strength bonus when using a light weapon with two hands.

Ability Damage: Certain creatures and magical effects can cause temporary ability damage (a reduction to an ability score).

Hit Points

An indicator of how much damage a creature or object can withstand. For creatures, this represents how much physical damage they can take before dropping into shock, and eventually death. When your Hit Point total reaches 0, you're in *shock*. When it reaches -1, you're dying. When it gets to your Death Level, you're dead. For objects this represents how much physical damage it takes to render it non-functional, or even destroyed. Objects educed to 0 Hit Points no longer are functional (walls have been broken through, computers will not turn on, ect). Objects reduced to negative Hit Points equal to half their regular Hit Points are *destroyed*, and cannot be repaired (walls turned to shattered debris, computers turned to molten scrap, ect).

Creatures typically have their Constitution score in Hit Points. This amount is modified by species, size (from Table 9-1: Size Modifiers), special qualities, and combat experience. Some resilient species, typically those with

cybernetic augmentation, have more than normal Hit Points. A creature's size category above or below Medium also provides a Hit Point modifier, and a modifier to how far below 0 Hit Points they can go before death (1 Hit Point minimum). Many enhancements and special Qualities can provide extra hit Points, but the most common is the Toughness feat. Finally, all creatures receive an extra Hit Point for every odd point of Base Attack bonus they have.

Hit Points = Constitution + Size modifier + [1 + (BAB/2)] + Special Abilities + Toughness

So long as a creature has any Vitality left, attacks that deal at least 5 points of Vitality damage also deal a single Hit Point of damage. This is due to bruising and other factors. This rule does not apply to undead creatures.

If a creature has only half it's Hit Points remaining, it is considered to be *fatigued.* If it has a quarter or fewer Hit Points remaining, it is considered to be *exhausted.* At 0 hit points they are in *staggered.* If a living creature goes below 0 hit points, then they are in *shock.* This rule does not apply to undead creatures.

Vitality

A measure of a living (or undead) creature's energy reserves, both mental and biological. A high Vitality score means the being does not get fatigued easily, and has allot of stamina. Like Hit Points, Vitality can be lost. A creature has an amount of Vitality equal to the total of it's Constitution and Wisdom modifiers, plus an additional amount from it's class levels.

Vitality = Constitution mod + Wisdom mod + random Class amounts

Creatures lose Vitality due to the use of certain abilities, extreme exertion, attacks, sleep deprivation, or drugs. Psionic and magical abilities usually take Vitality to use, which is covered in the descriptions of these abilities. Every 10 full rounds of combat costs all participants one point of Vitality. A round of running, or ten of Hustling (taking two Move actions in a single round), in combat requires a Fortitude DC 15 save to avoid losing an amount of Vitality equal to the amount the save was failed by. An attack that deals at least one Hit Point of damage also causes a point of Vitality damage, and some attacks deal Vitality damage straight out. Every hour of missed sleep causes one point of Vitality damage, which cannot be regained without the use of Stimulants or regular sleep. Most creatures require 7 hours of uninterrupted sleep, or 8 hours if interrupted, in a 24 hour period. Some poisons deal Vitality damage. Undead never suffer Vitality loss from taking Hit Point damage, Hustling, or even Running!

When a being's Vitality is reduced to less than half of what it normally is, then it is considered to be *fatigued*. When it is reduced to less than a quarter of it's normal maximum Vitality, then it is considered to be *exhausted*. At 0 Vitality, they lose consciousness. Any further Vitality damage taken after reaching 0 Vitality becomes Hit Point damage instead. This rule does not apply to undead creatures.

If a creature has lost many of both it's Hit Points *and* Vitality, then it is even worse off. If it has been reduced to half or less of both, then it is *exhausted* instead of *fatigued.* If it has been reduced to half or less of one and a quarter or less of the other, then it is *disabled*, but loses a point of Vitality instead of a Hit Point for taking Standard actions. If it has a quarter or less of both, then it is *helpless* and only aware of it's surroundings in the most rudimentary fashion! This rule does not apply to undead creatures.

These conditions are relieved once the creature's current Vitality rises to be greater than the amount required to trigger the condition. Vitality naturally returns at a rate of 1 point per character level for every hour spent resting (light activity), and twice that rate for every hour spent in *complete* rest (total inactivity or unconsciousness). It takes a full uninterrupted hour to regain any Vitality. A full night's sleep counts as complete rest, or regular rest if they are not comfortable. This may or may not be sufficient to restore all of a creature's Vitality, especially if it is getting less hours than it regularly needs.

SAVING THROWS

Generally, when you are subject to an unusual or magical attack, you get a saving throw to avoid or reduce the effect. Like an attack roll, a saving throw is a d20 roll plus a bonus based on your class, level, and an ability score. Your saving throw modifier is: Base save bonus + ability modifier

Saving Throw Types: The three different kinds of saving throws are Fortitude, Reflex, and Will:

Fortitude: These saves measure your ability to stand up to physical punishment or attacks against your biology and health. Apply your Constitution modifier to your Fortitude saving throws.

Reflex: These saves test your ability to dodge area attacks. Apply your Dexterity modifier to your Reflex saving throws.

Will: These saves reflect your resistance to mental influence as well as many magical effects. Apply your Wisdom modifier to your Will saving throws.

Saving Throw Difficulty Class: The DC for a save is determined by the attack itself.

Automatic Failures and Successes: A natural 1 (the d20 comes up 1) on a saving throw is always a failure (and may cause damage to exposed items; see Items Surviving after a Saving Throw). A natural 20 (the d20 comes up 20) is always a success.

DAMAGE REDUCTION

Some creatures have the ability to ignore blows altogether as though they were invulnerable, or at least to reduce the damage taken, as do most objects and other creatures in armor.

The numerical part of a creature's Damage Reduction is the amount of Hit Points the creature ignores from normal attacks. Damage Reduction is effective against any attack that does not ignore Damage Reduction, or reduce it's effectiveness (such as some types of weapons fire). Only kinetic damage from weapons and physical attacks is reduced by Damage Reduction, damage from energy attacks is not.

Whenever Damage Reduction completely negates the damage from an attack, it also negates most special effects that accompany the attack, such as injury type poison, stunning, special damage effects, and injury type disease. Damage Reduction does not negate energy damage dealt along with an attack. Nor does it affect poisons or diseases delivered by inhalation, ingestion, or contact.

Attacks that deal no damage because of the target's Damage Reduction do not break concentration, and therefore have no effect on whether or not somebody successfully uses psionics.

If a creature has Damage Reduction from more than one source, the two forms of Damage Reduction stack. This is most often the case with beings that are wearing armor in addition to having natural Damage Reduction, or Damage Reduction gained from cybernetics.

ENERGY RESISTANCE

Beings with this ability, usually granted by armor, reduce the amount of damage they take from energy-based damage sources. This includes heat, cold, electricity, and radiation damage. Energy Resistance can also be specific to one of these types of energy, "Fire Resistance" for instance.

Energy Resistance is given as a value. That value is subtracted from the damage of all energy-based attacks, and all damage rolls from exposure to that energy (such as walking through fire). If the Energy Resistance is by a particular type of energy, then it only reduces damage from the indicated energy type. Generic energy Resistance stacks with Energy Resistance for a particular type of energy, when resisting that type of energy. Both generic Energy Resistance and energy-specific Energy Resistance sources stack with other sources of the same type of Energy Resistance.

Fire Resistance also applies to damage from lasers.

VULNERABILITY

Some creatures are especially allergic to the contact of some substances or types of items and energies. This is shown by giving them Vulnerabilities. Attacks from weapons that are made of their Vulnerability deal extra damage, as does simple contact to their Vulnerability. For creature descriptions they are listed after the creature's Damage Reduction, or Energy Resistance, for ease of reference.

Vulnerabilities are listed as the type, and an amount of d6 dice. The amount of damage listed is added to all attacks from weapons or energy sources that are made with the vulnerability. It also represents how much damage any exposure to the vulnerability will deal at the end of the round the creature was exposed. Multiple attacks from weapons in one round each adds the Vulnerability to their damage, but exposure is handled only once per round no matter how much they are exposed to. The extra damage from weapon or energy sources is added in *before* Damage Reduction and Energy Resistance are sued to reduce the damage. This can easily lead to an attack that would normally bounce off the armor dealing damage anyway! Damage from simple exposure is not resisted by worn armor. The creature must be *completely* unexposed to the Vulnerability in order to ignore exposure, such as wearing an environmental suit or handling an object with thick gloves.

An example of Vulnerability might be: Vulnerability (Iron +2d6). Creatures can have multiple Vulnerabilities, which can stack, for example: Vulnerability (Iron +2d6, Electricity +1d6). A creature with that Vulnerability would take an extra 2d6 damage from attacks by an iron-bearing weapon (raw, steel, or alloy), and an extra 1d6 from any weapon or attack that uses electrical energy to deal damage (such as a shock glove or blaster pistol). If attacked by an iron weapon with an electrical current, they would take an extra 3d6 damage!

INITIATIVE

Initiative Checks: At the start of a battle, each combatant makes an initiative check. An initiative check is a Dexterity check. Each character applies his or her Dexterity modifier to the roll. Characters act in order, counting down from highest result to lowest. In every round that follows, the characters act in the same order (unless a character takes an action that results in his or her initiative changing; see Special Initiative Actions).

If two or more combatants have the same initiative check result, the combatants who are tied act in order of total initiative modifier (highest first). If there is still a tie, the tied characters should roll again to determine which one of them goes before the other.

Flat-Footed: At the start of a battle, before you have had a chance to act (specifically, before your first regular turn in the initiative order), you are flat-footed. You can't use your Dexterity bonus to Defensive Class (if any) while flat-footed.

A flat-footed character can't make attacks of opportunity.

Inaction: Even if you can't take actions, you retain your initiative score for the duration of the encounter.

10 Second Rule: To help maintain a sense of tension and pacing, players have 10 seconds to tell the Game Master what their actions are during combat. If they fail to do so, then their character has frozen and lost his action for that round.

SURPRISE

When a combat starts, if you are not aware of your opponents and they are aware of you, you're surprised.

Determining Awareness

Sometimes all the combatants on a side are aware of their opponents, sometimes none are, and sometimes only some of them are. Sometimes a few combatants on each side are aware and the other combatants on each side are unaware. Determining awareness may call for Listen checks, Spot checks, or other checks.

The Surprise Round: If some but not all of the combatants are aware of their opponents, a surprise round happens before regular rounds begin. Any combatants aware of the opponents can act in the surprise round, so they roll for initiative. In initiative order (highest to

lowest), combatants who started the battle aware of their opponents each take a standard action during the surprise round. You can also take free actions during the surprise round. If no one or everyone is surprised, no surprise round occurs.

Unaware Combatants: Combatants who are unaware at the start of battle don't get to act in the surprise round. Unaware combatants are flat-footed because they have not acted yet, so they lose any Dexterity bonus to Defensive Class.

ATTACKS OF OPPORTUNITY

Sometimes a combatant in a melee lets her guard down. In this case, combatants near her can take advantage of her lapse in defense to attack her for free. These free attacks are called attacks of opportunity.

Threatened Squares: You threaten all squares into which you can make a melee attack, even when it is not your action. Generally, that means everything in all squares adjacent to your space (including diagonally). An enemy that takes certain actions while in a threatened square provokes an attack of opportunity from you. If you're unarmed, you don't normally threaten any squares and thus can't make attacks of opportunity.

Reach Weapons: Most creatures of Medium or smaller size have a reach of only 5 feet. This means that they can make melee attacks only against creatures up to 5 feet (1 square) away. However, Small and Medium creatures wielding reach weapons threaten more squares than a typical creature. In addition, most creatures larger than Medium have a natural reach of 10 feet or more.

Provoking an Attack of Opportunity: Two kinds of actions can provoke attacks of opportunity: moving out of a threatened square and performing an action within a threatened square.

Moving: Moving out of a threatened square usually provokes an attack of opportunity from the threatening opponent. There are two common methods of avoiding such an attack-the 5-foot-step and the withdraw action (see below).

Performing a Distracting Act: Some actions, when performed in a threatened square, provoke attacks of opportunity as you divert your attention from the battle. Table 9-2: Actions in Combat notes many of the actions that provoke attacks of opportunity.

Remember that even actions that normally provoke attacks of opportunity may have exceptions to this rule.

Making an Attack of Opportunity: An attack of opportunity is a single melee attack, and you can only make one per round. You don't have to make an attack of opportunity if you don't want to.

An experienced character gets additional regular melee attacks (by using the full attack action), but at a lower attack bonus. You make your attack of opportunity, however, at your normal attack bonus-even if you've already attacked in the round.

An attack of opportunity "interrupts" the normal flow of actions in the round. If an attack of opportunity is provoked, immediately resolve the attack of opportunity, then continue with the next character's turn (or complete the current turn, if the attack of opportunity was provoked in the midst of a character's turn).

Combat Reflexes and Additional Attacks of Opportunity: If you have the Combat Reflexes feat you can add your Dexterity modifier to the number of attacks of opportunity you can make in a round. This feat does not let you make more than one attack for a given opportunity, but if the same opponent provokes two attacks of opportunity from you, you could make two separate attacks of opportunity (since each one represents a different opportunity). Moving out of more than one square threatened by the same opponent in the same round doesn't count as more than one opportunity for that opponent. All these attacks are at your full normal attack bonus.

SPEED

Your speed tells you how far you can move in a round and still do something, such as attack or cast a spell. Your speed depends mostly on your race and what armor you're wearing.

Drakes have a speed of 20 feet (4 squares), or 30 ft (6 squares) if running on all fours (nothing in their hands).

Humans, Flakam, and Orliss have a speed of 30 feet (6 squares).

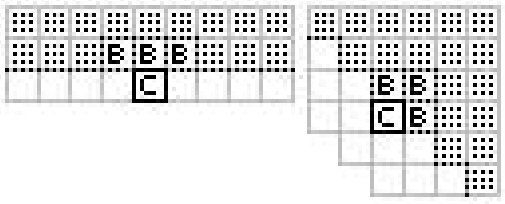
Every two levels of Encumbrance reduces your Speed by 5 ft (1 square), and being *exhausted* reduces it by 10 ft (2 squares).

If you use two move actions in a round (sometimes called a "double move" action), you can move up to double your speed. If you spend the entire round to run all out, you can move up to quadruple your speed (or triple if you are in heavy armor).

FACING

Creatures have a limited field of view, even in a combat situation. This means that there is always one side of them that they cannot see. This causes them to lose some defenses against attacks from this "blind spot", as well as being unable to attack into it. The effect of this is referred to as "facing".

Creatures select one side of their occupied area on the battlefield to be their blind spot. The blind spot is a 180 degree half-circle area, starting from the end of their occupied area. On a standard square grid, a creature that occupies a single 5-ft square would designate three squares touching it, each with one side flush to at least one of the other two squares, as his blind spot. The diagram below shows two examples of this. The square marked with a "C" is the square the creature occupies. The squares marked with a "B" are the creature's blind spot. The dotted line represents the arc described by their blind spot. The dotted-in squares are areas they cannot attack because they are in their blind spot arc.



A creature cannot make attacks into their blind spot or it's arc, not even attacks of opportunity. They cannot make Spot checks within that arc, but Listen checks are permitted. Attacks against them made from that arc made without the creature getting any bonus to it's Defensive Class for it's Dexterity modifier.

A creature can change it's facing an unlimited number of times, but only on it's turn.

Keeping track of this effect is easier with miniatures, which often have an easily distinguishable "front" and "back". Just designate the miniature's back as marking it's blind spot.

Groups should feel free to disregard this rule if they find it too complicated. Keep in mind that if it is disregarded, then it should be *totally* disregarded!

ACTIONS IN COMBAT

The Combat Round

Each round represents 6 seconds in the game world. A round presents an opportunity for each character involved in a combat situation to take an action.

Each round's activity begins with the character with the highest initiative result and then proceeds, in order, from there. Each round of a combat uses the same initiative order. When a character's turn comes up in the initiative sequence, that character performs his entire round's worth of actions. (For exceptions, see Attacks of Opportunity and Special Initiative Actions.)

For almost all purposes, there is no relevance to the end of a round or the beginning of a round. A round can be a segment of game time starting with the first character to act and ending with the last, but it usually means a span of time from one round to the same initiative count in the next round. Effects that last a certain number of rounds end just before the same initiative count that they began on.

Action Types

An action's type essentially tells you how long the action takes to perform (within the framework of the 6-second combat round) and how movement is treated. There are four types of actions: standard actions, move actions, full-round actions, and free actions.

In a normal round, you can perform a standard action and a move action, or you can perform a full-round action. You can also perform one or more free actions. You can always take a move action in place of a standard action.

In some situations (such as in a surprise round), you may be limited to taking only a single move action or standard action.

Standard Action: A standard action allows you to do something, most commonly make an attack or cast a spell. See Table: Actions in Combat for other standard actions.

Move Action: A move action allows you to move your speed or perform an action that takes a similar amount of time. See Table: Actions in Combat.

You can take a move action in place of a standard action. If you move no actual distance in a round (commonly because you have swapped your move for one or more equivalent actions), you can take one 5-foot step either before, during, or after the action.

Full-Round Action: A full-round action consumes all your effort during a round. The only movement you can take during a full-round action is a 5-foot step before, during, or after the action. You can also perform free actions (see below).

Some full-round actions do not allow you to take a 5-foot step.

Some full-round actions can be taken as standard actions, but only in situations when you are limited to performing only a standard action during your round. The descriptions of specific actions, below, detail which actions allow this option.

Free Action: Free actions consume a very small amount of time and effort. You can perform one or more free actions while taking another action normally. However, there are reasonable limits on what you can really do for free.

Not an Action: Some activities are so minor that they are not even considered free actions. They literally don't take any time at all to do and are considered an inherent part of doing something else.

Restricted Activity: In some situations, you may be unable to take a full round's worth of actions. In such cases, you are restricted to taking only a single standard action or a single move action (plus free actions as normal). You can't take a full-round action (though you can start or complete a full-round action by using a standard action; see below).

TABLE 9-2: ACTIONS IN COMBAT

Standard Action	Attack of Opportunity[1]
Activate Psionic Power	Yes
Activate Psionic Power with -5 penalty	No
Attack (melee)	No
Attack (ranged)	Yes
Attack (unarmed)	Yes
Aid another	Maybe[2]
Bull rush	No
Draw a hidden weapon (see Sleight of Hand skill)	No
Escape a grapple	No
Feint	No
Make a dying friend stable (see Heal skill)	Yes
Overrun	No
Ready (triggers a standard action)	No
Sunder a weapon (attack)	Yes
Sunder an object (attack)	Maybe[3]
Total defense	No
Use extraordinary ability	No
Use skill that takes 1 action	Usually

Move Action	Attack of Opportunity[1]
Move	Yes
Continue control of psionic power	No
Control a frightened mount	Yes
Draw a weapon 4	No
Load a hand crossbow or light crossbow	Yes
Open or close a door	No
Mount a horse or dismount	No
Move a heavy object	Yes
Pick up an item	Yes
Sheathe a weapon	Yes
Stand up from prone	Yes
Retrieve a stored item	Yes

Full-Round Action	Attack of Opportunity[1]
Full attack	No
Charge[5]	No
Deliver coup de grace	Yes
Escape from a net	Yes
Extinguish flames	Yes
Run	Yes
Use skill that takes 1 round	Usually
Withdraw[5]	No
Bypass Armor Attack	Yes

Free Action	Attack of Opportunity[1]
Drop an item	No
Drop to the floor	No
End continuous psionic power	No
Speak	No

No Action	Attack of Opportunity[1]
Delay	No
5-foot step	No

Action Type Varies	Attack of Opportunity[1]
Disarm[7]	Yes
Grapple[7]	Yes
Trip an opponent[7]	No
Use feat[8]	Yes

1 Regardless of the action, if you move out of a threatened square, you usually provoke an attack of opportunity. This column indicates whether the action itself, not moving, provokes an attack of opportunity.
2 If you aid someone performing an action that would normally provoke an attack of opportunity, then the act of aiding another provokes an attack of opportunity as well.
3 If the object is being held, carried, or worn by a creature, yes. If not, no.
4 If you have a base attack bonus of +1 or higher, you can combine one of these actions with a regular move. If you have the Two- Weapon Fighting feat, you can draw two light or one-handed weapons in the time it would normally take you to draw one.
5 May be taken as a standard action if you are limited to taking only a single action in a round.
6 Unless the component is an extremely large or awkward item.
7 These attack forms substitute for a melee attack, not an action. As melee attacks, they can be used once in an attack or charge action, one or more times in a full attack action, or even as an attack of opportunity.
8 The description of a feat defines its effect.

Standard Actions

Activate Psionic Power

Activating a psionic power is a standard action. This includes all powers activated during combat that are not used to attack. To activate a psionic power, a character must have the feat that provides access to the power. They then roll a skill check using their total in the psionic skill the feat requires, and apply all relevant penalties as well as the penalty for the power. If they do not roll a natural 1, and make at least DC 10, then they successfully activate the power. At the end of any turn in which they make the skill check to power, they must pay the Vitality cost of activating the power.

Attack

Making an attack is a standard action.

Melee Attacks: With a normal melee weapon, you can strike any opponent within 5 feet. (Opponents within 5 feet are considered adjacent to you.) Some melee weapons have reach, as indicated in their descriptions. With a typical reach weapon, you can strike opponents an extra five feet away (those out to 10 ft), but you strike adjacent foes at a -4 circumstance penalty (those within 5 feet).

Unarmed Attacks: Striking for damage with punches, kicks, and head butts is much like attacking with a melee weapon, except for the following:

Attacks of Opportunity: Attacking unarmed provokes an attack of opportunity from the character you attack, provided she is armed. The attack of opportunity comes before your attack. An unarmed attack does not provoke attacks of opportunity from other foes nor does it provoke an attack of opportunity from an unarmed foe.

An unarmed character can't take attacks of opportunity (but see "Armed" Unarmed Attacks, below).

"Armed" Unarmed Attacks: Sometimes a character's or creature's unarmed attack counts as an armed attack. A monk, a character with the Improved Unarmed Strike feat, a spellcaster delivering a touch attack spell, and a creature with natural physical weapons all count as being armed.

Note that being armed counts for both offense and defense (the character can make attacks of opportunity)

Unarmed Strike Damage: An unarmed strike from a Medium character deals 1d3 points of damage (plus your Strength modifier, as normal). A Small character's unarmed strike deals 1d2 points of damage, while a Large character's unarmed strike deals 1d4 points of damage. All damage from unarmed strikes is Vitality damage. Unarmed strikes count as light weapons (for purposes of two-weapon attack penalties and so on).

Dealing Hit Point Damage: You can specify that your unarmed strike will deal Hit Point damage before you make your attack roll, but you take a -4 penalty on your attack roll. If you have the Improved Unarmed Strike feat, you can deal Hit Point damage with an unarmed strike without taking a penalty on the attack roll.

Ranged Attacks: With a ranged weapon, you can shoot or throw at any target that is within the weapon's maximum range and in line of sight. The maximum range for a thrown weapon is five range increments. For projectile weapons, it is ten range increments. Some ranged weapons have shorter maximum ranges, as

specified in their descriptions.

Attack Rolls: An attack roll represents your attempts to strike your opponent.

Your attack roll is 1d20 + your attack bonus with the weapon you're using. If the result is at least as high as the target's Defensive Class, you hit and deal damage.

Automatic Misses and Hits: A natural 1 (the d20 comes up 1) on the attack roll is always a miss. A natural 20 (the d20 comes up 20) is always a hit. A natural 20 that also beats the Defensive Class by at least five can also provide special damage.

Damage Rolls: If the attack roll result equals or exceeds the target's Defensive Class, the attack hits and you deal damage. Roll the appropriate damage for your weapon. Damage is deducted from the target's current Hit Points.

Multiple Attacks: A character who can make more than one attack per round must use the full attack action (see Full-Round Actions, below) in order to get more than one attack.

Shooting or Throwing into a Melee: If you shoot or throw a ranged weapon at a target engaged in melee with a friendly character, you take a -4 penalty on your attack roll. Two characters are engaged in melee if they are enemies of each other and either threatens the other. (An unconscious or otherwise immobilized character is not considered engaged unless he is actually being attacked.)

If your target (or the part of your target you're aiming at, if it's a big target) is at least 10 feet away from the nearest friendly character, you can avoid the -4 penalty, even if the creature you're aiming at is engaged in melee with a friendly character.

Precise Shot: If you have the Precise Shot feat you don't take this penalty.

Fighting Defensively as a Standard Action: You can choose to fight defensively when attacking. If you do so, you take a -4 penalty on all attacks in a round to gain a +2 dodge bonus to Defensive Class for the same round.

Use Special Ability

Using a special ability is usually a standard action, but whether it is a standard action, a full-round action, or not an action at all is defined by the ability.

Extraordinary Abilities: Using an extraordinary ability is usually not an action because most extraordinary abilities automatically happen in a reactive fashion. Those extraordinary abilities that are actions are usually standard actions that cannot be disrupted, do not require concentration, and do not provoke attacks of opportunity.

Total Defense

You can defend yourself as a standard action. You get a +4 dodge bonus to your Defensive Class for 1 round. Your Defensive Class improves at the start of this action. You can't combine total defense with fighting defensively or with the benefit of the Combat Expertise feat (since both of those require you to declare an attack or full attack). You can't make attacks of opportunity while using total defense.

Start/Complete Full-Round Action

The "start full-round action" standard action lets you start undertaking a full-round action, which you can complete in the following round by using another standard action. You can't use this action to start or complete a full attack, charge, run, or withdraw.

Move Actions

With the exception of specific movement-related skills, most move actions don't require a check.

Move

The simplest move action is moving your speed. If you take this kind of move action during your turn, you can't also take a 5-foot step.

Many nonstandard modes of movement are covered under this category, including climbing (up to one-quarter of your speed) and swimming (up to one-quarter of your speed).

Accelerated Climbing: You can climb one-half your speed as a move action by accepting a -5 penalty on your Climb check.

Crawling: You can crawl 5 feet as a move action. Crawling incurs attacks of opportunity from any attackers who threaten you at any point of your crawl.

Continue Control of Psionic Power

Any psionic power that is not self-sustaining requires some mental effort to maintain control over. A character can use a move action to exercise that control, altering or manipulating any single psionic power he has already activated. If a character has activated a continuous psionic power, and ignores it, the power is still in effect, but it's influence on the target remains unchanged.

A character can ignore a psionic power's effect in this manner for up to one round per Psionicist level before the power ceases to be active. He can reset this duration by using a move action to continue to control the power. This also means that characters without levels in Psionicist must use this action every round to maintain the effects of their activated powers.

Example: Joe Darkheart is a 5th-level Psionicist with the Psychokinesis and Mental Arm feats. In a previous round he used Mental Arm on himself in order to fly up the side of a building. H is now engaged in a gun fight on the side of the building, firing down on the guards who came out to check the alarm he accidentally tripped. In the first round of combat he uses his move action to draw his laser pistol, and then attacks with it. In the second and third rounds of combat he uses his Rapid Fire feat to shoot at the guards, but only manages to hurt one. On the fourth round he uses his move action to draw a grenade, his standard action to set it to explode on impact, and a free action to drop in into the guards below. On the fifth round he resumes active control over his previous activation of Mental Arm, and just in time too. The entire fight he was hanging in mid-air because he was ignoring the power, but one more round and the power would no longer be active...with him 100 feet up!

Draw or Sheathe a Weapon

Drawing a weapon so that you can use it in combat, or putting it away so that you have a free hand, requires a move action. This action also applies to weapon-like objects carried in easy reach, such as grenades and tools. If your weapon or weapon-like object is stored in a pack or otherwise out of easy reach, treat this action as retrieving a stored item.

If you have a base attack bonus of +1 or higher, you may draw a weapon as a free action combined with a regular move. If you have the Two-Weapon Fighting feat, you can draw two light or one-handed weapons in the time it would normally take you to draw one.

Drawing ammunition for use with a ranged weapon (such as arrows, bolts, bullets, charge packs, sling bullets, or shuriken) is a free action.

Loading ammunition into a firearm is a move action.

Manipulate an Item

In most cases, moving or manipulating an item is a move action.

This includes retrieving or putting away a stored item, picking up an item, moving a heavy object, and opening a door. Examples of this kind of action, along with whether they incur an attack of opportunity, are given in Table: Actions in Combat.

Stand Up

Standing up from a prone position requires a move action and provokes attacks of opportunity.

Mount/Dismount a Steed or Vehicle

Mounting or dismounting from a steed, or getting into or out of a vehicle, requires a move action.

Fast Mount or Dismount: You can mount or dismount as a free action with a DC 20 Ride (or Pilot for vehicles) check (your armor check penalty, if any, applies to this check). If you fail the check, mounting or dismounting is a move action instead. (You can't attempt a fast mount or fast dismount unless you can perform the mount or dismount as a move action in the current round.)

Full-Round Actions

A full-round action requires an entire round to complete. Thus, it can't be coupled with a standard or a move action, though if it does not involve moving any distance, you can take a 5-foot step.

Full Attack

If you get more than one attack per round because your base attack bonus is high enough, because you fight with two weapons or a double weapon or for some special reason you must use a full-round action to get your additional attacks. You do not need to specify the targets of your attacks ahead of time. You can see how the earlier attacks turn out before assigning the later ones.

The only movement you can take during a full attack is a 5-foot step. You may take the step before, after, or between your attacks.

If you get multiple attacks because your base attack bonus is high enough, you must make the attacks in order from highest bonus to lowest. If you are using two weapons, you can strike with either weapon first. If you are using a double weapon, you can strike with either part of the weapon first.

Deciding between an Attack or a Full Attack: After your first attack, you can decide to take a move action instead of making your remaining attacks, depending on how the first attack turns out. If you've already taken a 5-foot step, you can't use your move action to move any distance, but you could still use a different kind of move action.

Fighting Defensively as a Full-Round Action: You can choose to fight defensively when taking a full attack action. If you do so, you take a -4 penalty on all attacks in a round to gain a +2 dodge bonus to Defensive Class for the same round.

Cleave: The extra attack granted by the Cleave feat or Great Cleave feat can be taken whenever they apply. This is an exception to the normal limit to the number of attacks you can take when not using a full attack action.

Use Special Ability

Using a special ability is usually a standard action, but some may be full-round actions, as defined by the ability.

Withdraw

Withdrawing from melee combat is a full-round action. When you withdraw, you can move up to double your speed. The square you start out in is not considered threatened by any opponent you can see, and therefore visible enemies do not get attacks of opportunity against you when you move from that square. (Invisible enemies still get attacks of opportunity against you, and you can't withdraw from combat if you're blinded.) You can't take a 5-foot step during the same round in which you withdraw.

If, during the process of withdrawing, you move out of a threatened square (other than the one you started in), enemies get attacks of opportunity as normal.

You may not withdraw using a form of movement for which you don't have a listed speed.

Note that despite the name of this action, you don't actually have to leave combat entirely.

Restricted Withdraw: If you are limited to taking only a standard action each round you can withdraw as a standard action. In this case, you may move up to your speed (rather than up to double your speed).

Run

You can run as a full-round action. (If you do, you do not also get a 5-foot step.) When you run, you can move up to four times your speed in a straight line (or three times your speed if you're in heavy armor). You lose any Dexterity bonus to Defensive Class unless you have the Run feat

You can run for a number of rounds equal to your Constitution score, but after that you must make a DC 10 Constitution check to continue running. You must check again each round in which you continue to run, and the DC of this check increases by 1 for each check you have made. When you fail this check, you must stop running. A character who has run to his limit must rest for 1 minute (10 rounds) before running again. During a rest period, a

character can move no faster than a normal move action.

You can't run across difficult terrain or if you can't see where you're going.

A run represents a speed of about 12 miles per hour for an unencumbered human.

Move 5 Feet through Difficult Terrain

In some situations, your movement may be so hampered that you don't have sufficient speed even to move 5 feet (a single square). In such a case, you may spend a full-round action to move 5 feet (1 square) in any direction, even diagonally. Even though this looks like a 5-foot step, it's not, and thus it provokes attacks of opportunity normally.

Bypass Armor Attack

An attacker might find it more advantageous to try and attack openings in a target's Damage Reduction, rather than try to damage them through it. This can be done with melee attacks, or ranged attacks within 30 ft. The attacker makes one attack roll at a -4 penalty, and increases his percentage chance to miss the target by 5% per point of total generic DR the target has. If this brings his percentage miss chance up to 100% or more, then he misses no mater what. If he makes both rolls successfully, then his attack ignores all the target's Damage Reduction! If he misses his attack roll by *any* amount, then he misses the target completely. For assailants that deal very little damage, this might be the only way to hurt their opponent.

Free Actions

Free actions don't take any time at all, though there may be limits to the number of free actions you can perform in a turn. Free actions rarely incur attacks of opportunity. Some common free actions are described below.

Drop an Item

Dropping an item in your space or into an adjacent square is a free action.

Drop Prone

Dropping to a prone position in your space is a free action.

End Continuous Psionic Power

The character stops the effect of a previously activated continuous psionic power.

Speak

In general, speaking is a free action that you can perform even when it isn't your turn. Speaking more than few sentences is generally beyond the limit of a free action.

Miscellaneous Actions

Take 5-Foot Step

You can move 5 feet in any round when you don't perform any other kind of movement. Taking this 5-foot step never provokes an attack of opportunity. You can't take more than one 5-foot step in a round, and you can't take a 5-foot step in the same round when you move any distance.

You can take a 5-foot step before, during, or after your other actions in the round.

You can only take a 5-foot-step if your movement isn't hampered by difficult terrain or darkness. Any creature with a speed of 5 feet or less can't take a 5-foot step, since moving even 5 feet requires a move action for such a slow creature.

You may not take a 5-foot step using a form of movement for which you do not have a listed speed.

Use Feat

Certain feats let you take special actions in combat. Other feats do not require actions themselves, but they give you a bonus when attempting something you can already do. Some feats are not meant to be used within the framework of combat. The individual feat descriptions tell you what you need to know about them.

Use Skill

Most skill uses are standard actions, but some might be move actions, full-round actions, free actions, or something else entirely.

The individual skill descriptions tell you what sorts of actions are required to perform skills.

INJURY AND DEATH

Your Hit Points measure how hard you are to kill. No matter how many Hit Points you lose, your character isn't hindered in any way until your Hit Points drop to 0 or lower.

Loss of Hit Points

The most common way that your character gets hurt is to take Hit Point damage and lose Hit Points

What Hit Points Represent: Hit points mean two things in the game world: the ability to take physical punishment and keep going, and how much trauma you can sustain before going into *shock*.

Effects of Hit Point Damage: Damage doesn't slow you down until your current Hit Points reach 0 or lower. At 0 Hit Points, you're in *shock*.

At from -1 to -9 Hit Points, you're dying.

At -10 or lower, you're dead.

Shock (0 Hit Points)

When your current Hit Points drop to exactly 0, you're in *shock*.

You can only take a single move or standard action each turn (but not both, nor can you take full-round actions). You can take move actions without further injuring yourself, but if you perform any standard action

(or any other strenuous action) you take 1d6 points of Vitality damage after the completing the act. If this causes you to take damage by running out of Vitality, you are now at below 0 Hit Points and are dying.

Healing that raises your Hit Points above 0 makes you fully functional again, just as if you'd never been reduced to 0 or fewer Hit Points.

You can also be revived to a *shock* state when recovering from dying. In this case, it's a step toward recovery, and you can have fewer than 0 Hit Points (see Stable Characters and Recovery, below).

Dying (-1 And Less Hit Points)

When your character's current Hit Points drop to below 0, he's dying.

A dying character immediately falls unconscious and can take no actions.

A dying character loses 1 Hit Point every round. This continues until the character dies or becomes stable (see below).

Dead (Death Level Hit Points Or Lower)

When your character's current Hit Points drop to his Death Level or lower he's dead. A character can also die from taking ability damage or suffering an ability drain that reduces his Constitution to 0.

Stable Characters and Recovery

On the next turn after a character is reduced to negative Hit Points and on all subsequent turns, roll a Fortitude save DC 20 to see whether the dying character becomes stable. If he doesn't, he loses 1 Hit Point. (A character who's unconscious or dying can't use any special action that changes the initiative count on which his action occurs.)

If the character's Hit Points drop to his Death Level, he's dead.

You can keep a dying character from losing any more Hit Points and make him stable with a DC 15 Heal check.

If any sort of healing cures the dying character of even 1 point of damage, he stops losing Hit Points and becomes stable.

Healing that raises the dying character's Hit Points to 0 makes him conscious and in *shock*. Healing that raises his Hit Points to 1 or more makes him fully functional again, just as if he'd never been reduced to 0 or lower. However, he is still shaky, and has only 1d6 Vitality points, but no more Vitality than he had when he was reduced to below 0 Hit Points.

A stable character who has been tended by a healer or who has been healed with advanced technological medicine eventually regains consciousness and recovers Hit Points naturally. If the character has no one to tend him, however, his life is still in danger, and he may yet slip away.

Recovering with Help: One hour after a tended dying character becomes stable, make another Fortitude DC 15 save to see if he regains consciousness. If he remains unconscious, he has the same chance to revive and become disabled every hour. Even if unconscious, he recovers Hit Points naturally. He is back to normal when his Hit Points rise to 1 or higher.

Recovering without Help: A severely wounded character left alone usually dies. He has a small chance, however, of recovering on his own.

A character who becomes stable on his own (by making the Fortitude save while dying) and who has no one to tend to him still loses Hit Points, just at a slower rate. He makes a Fortitude DC 20 save every hour to become conscious. Each time he misses his hourly roll to become conscious, he loses 1 Hit Point. He also does not recover Hit Points through natural healing.

Even once he becomes conscious and is disabled, an unaided character still does not recover Hit Points naturally. Instead, each day he makes a Fortitude DC 20 save to start recovering Hit Points naturally (starting with that day); otherwise, he loses 1 Hit Point.

Once an unaided character starts recovering Hit Points naturally, he is no longer in danger of naturally losing Hit Points (even if his current Hit Point total is negative).

HEALING

After taking damage, you can recover Hit Points through natural healing or through magical healing. In any case, you can't regain Hit Points past your full normal Hit Point total.

Natural Healing: With a full night's rest (8 hours of sleep or more), you recover 1 Hit Point. Any significant interruption during your rest prevents you from healing that night.

If you undergo complete bed rest for an entire day and night, you can make a Constitution DC 15 check to recover an additional Hit Point.

Advanced Medicine: Various abilities and devices can restore Hit Points. Of these, the most common is the sap secreted by the Orliss, which can bind wounds and restore Hit Points to any mammalian creature.

Healing Limits: You can never recover more Hit Points than your normal Hit Point maximum.

Healing Ability Damage: Ability damage is temporary, just as Hit Point damage is. Ability damage returns at the rate of 1 point per night of rest (8 hours) for each affected ability score. Complete bed rest restores 2 points per day (24 hours) for each affected ability score.

Healing Ability Drain: Ability drain cannot heal without medical attention. A successful Heal check against a DC of 20 + the amount of ability score drain for the ability score in question can allow some of the ability drain to become ability damage, but slowly. The check allows the character to convert a single point after 20 days have passed, with days of bed rest counting as two days. Only one point is converted in this manner at a time, each additional point requires another Heal check after the first point has been converted.

Rapid Recovery: If the Heal check DC is simply not enough, a character can be operated on to heal ability drain rapidly. This means that the person trying to repair the damage must have the Surgery feat. The procedure to try and heal the ability drain requires a Heal check with a DC equal to 20 + the amount of ability drain for the ability score being repaired. Every full five points this DC is passed by changes one point of ability drain to ability

damage. This operation also deals 1d6 points of damage to the subject, and costs 1,000 credits in consumed medical supplies.

Temporary Hit Points

Certain effects give a character temporary Hit Points. When a character gains temporary Hit Points, note his current Hit Point total. When the temporary Hit Points go away the character's Hit Points drop to his current Hit Point total. If the character's Hit Points are below his current Hit Point total at that time, all the temporary Hit Points have already been lost and the character's Hit Point total does not drop further.

When temporary Hit Points are lost, they cannot be restored as real Hit Points can be, even by magic.

Increases in Constitution Score and Current Hit Points: An increase in a character's Constitution score, even a temporary one, can give her more Hit Points (an effective Hit Point increase), but these are not temporary Hit Points. They can be restored and they are not lost first as temporary Hit Points are.

Vitality Damage

Dealing Vitality Damage: Certain attacks deal Vitality damage. Other effects, such as heat or being exhausted, also deal Vitality damage. When you take Vitality damage, subtract it from your current Vitality score. When your Vitality score reaches 0, you are unconscious. Any Vitality damage you receive after your Vitality score has been reduced to 0 becomes Hit Point damage.

Vitality Damage with a Weapon that Deals Hit Point Damage: You can use a melee weapon that deals Hit Point damage to deal Vitality damage instead, but you take a -4 penalty on your attack roll.

Hit Point Damage with a Weapon that Deals Vitality Damage: You can use a weapon that deals Vitality damage, including an unarmed strike, to deal Hit Point damage instead, but you take a -4 penalty on your attack roll.

Healing Vitality Damage: You heal Vitality damage at the rate of 1 Vitality point per hour per character level.

MOVEMENT, MODIFIERS, SPECIAL ACTIONS

Movement, Position, and Distance

Miniatures are on the 30 mm scale-a miniature figure of a six-foot-tall human is approximately 30 mm tall. A square on the battle grid is 1 inch across, representing a 5-foot-by-5-foot area. You do not need miniatures to play Dead Stars, or even a battle mat. It just helps during combat. For miniatures, I recommend buying from *Reaper Miniatures*, they have a nice catalogue of science-fiction oriented minis, and cheap prices. I'm not receiving anything for this endorsement, I just have found them to be the best overall miniatures company.

Tactical Movement

How Far Can Your Character Move?

Your speed is determined by your race and your armor (see Table: Tactical Speed). Your speed while unarmored is your base land speed.

Encumbrance: A character encumbered by carrying a large amount of gear, treasure, or fallen comrades may move slower than normal.

Hampered Movement: Difficult terrain, obstacles, or poor visibility can hamper movement.

Movement in Combat: Generally, you can move your speed in a round and still do something (take a move action and a standard action).

If you do nothing but move (that is, if you use both of your actions in a round to move your speed), you can move double your speed.

If you spend the entire round running, you can move quadruple your speed. If you do something that requires a full round you can only take a 5-foot step.

Bonuses to Speed: Many Cyberimplants and other factors can enhance a character's speed. Always apply any modifiers to a character's speed before adjusting the character's speed based on armor or encumbrance, and remember that multiple bonuses of the same type to a character's speed don't stack.

Measuring Distance

Diagonals: When measuring distance, the first diagonal counts as 1 square, the second counts as 2 squares, the third counts as 1, the fourth as 2, and so on.

You can't move diagonally past a corner (even by taking a 5-foot step). You can move diagonally past a creature, even an opponent.

You can also move diagonally past other impassable obstacles, such as pits.

Closest Creature: When it's important to determine the closest square or creature to a location, if two squares or creatures are equally close, randomly determine which one counts as closest by rolling a die.

Moving through a Square

Friend: You can move through a square occupied by a friendly character, unless you are charging. When you move through a square occupied by a friendly character, that character doesn't provide you with cover.

Opponent: You can't move through a square occupied by an opponent, unless the opponent is helpless. You can move through a square occupied by a helpless opponent without penalty. (Some creatures, particularly very large ones, may present an obstacle even when helpless. In such cases, each square you move through counts as 2 squares.)

Ending Your Movement: You can't end your movement in the same square as another creature unless it is helpless.

Overrun: During your movement or as part of a charge, you can attempt to move through a square occupied by an opponent.

Tumbling: A trained character can attempt to tumble through a square occupied by an opponent (see the Tumble skill).

Very Small Creature: A Fine, Diminutive, or Tiny creature can move into or through an occupied square. The creature provokes attacks of opportunity when doing so.

Square Occupied by Creature Three Sizes Larger or Smaller: Any creature can move through a square occupied by a creature three size categories larger than it is.

A big creature can move through a square occupied by a creature three size categories smaller than it is.

Designated Exceptions: Some creatures break the above rules. A creature that completely fills the squares it occupies cannot be moved past, even with the Tumble skill or similar special abilities.

Terrain and Obstacles

Difficult Terrain: Difficult terrain hampers movement. Each square of difficult terrain counts as 2 squares of movement. (Each diagonal move into a difficult terrain square counts as 3 squares.) You can't run or charge across difficult terrain.

If you occupy squares with different kinds of terrain, you can move only as fast as the most difficult terrain you occupy will allow.

Flying and incorporeal creatures are not hampered by difficult terrain.

Obstacles: Like difficult terrain, obstacles can hamper movement. If an obstacle hampers movement but doesn't completely block it each obstructed square or obstacle between squares counts as 2 squares of movement. You must pay this cost to cross the barrier, in addition to the cost to move into the square on the other side. If you don't have sufficient movement to cross the barrier and move into the square on the other side, you can't cross the barrier. Some obstacles may also require a skill check to cross.

On the other hand, some obstacles block movement entirely. A character can't move through a blocking obstacle.

Flying and incorporeal creatures can avoid most obstacles

Squeezing: In some cases, you may have to squeeze into or through an area that isn't as wide as the space you take up. You can squeeze through or into a space that is at least half as wide as your normal space. Each move into or through a narrow space counts as if it were 2 squares, and while squeezed in a narrow space you take a -4 penalty on attack rolls and a -4 penalty to Defensive Class.

When a Large creature (which normally takes up four squares) squeezes into a space that's one square wide, the creature's miniature figure occupies two squares, centered on the line between the two squares. For a bigger creature, center the creature likewise in the area it squeezes into.

A creature can squeeze past an opponent while moving but it can't end its movement in an occupied square.

To squeeze through or into a space less than half your space's width, you must use the Escape Artist skill. You can't attack while using Escape Artist to squeeze through or into a narrow space, you take a -4 penalty to Defensive Class, and you lose any Dexterity bonus to Defensive Class.

Special Movement Rules

These rules cover special movement situations.

Accidentally Ending Movement in an Illegal Space: Sometimes a character ends its movement while moving through a space where it's not allowed to stop. When that happens, put your miniature in the last legal position you occupied, or the closest legal position, if there's a legal position that's closer.

Double Movement Cost: When your movement is hampered in some way, your movement usually costs double. For example, each square of movement through difficult terrain counts as 2 squares, and each diagonal move through such terrain counts as 3 squares (just as two diagonal moves normally do).

If movement cost is doubled twice, then each square counts as 4 squares (or as 6 squares if moving diagonally). If movement cost is doubled three times, then each square counts as 8 squares (12 if diagonal) and so on. This is an exception to the general rule that two doublings are equivalent to a tripling.

Minimum Movement: Despite penalties to movement, you can take a full-round action to move 5 feet (1 square) in any direction, even diagonally. (This rule doesn't allow you to move through impassable terrain or to move when all movement is prohibited.) Such movement provokes attacks of opportunity as normal (despite the distance covered, this move isn't a 5-foot step).

Big and Little Creatures in Combat

Creatures smaller than Small or larger than Medium have special rules relating to position.

Tiny, Diminutive, and Fine Creatures: Very small creatures take up less than 1 square of space. This means that more than one such creature can fit into a single square. A Tiny creature typically occupies a space only 2-1/2 feet across, so four can fit into a single square. Twenty-five Diminutive creatures or 100 Fine creatures can fit into a single square. Creatures that take up less than 1 square of space typically have a natural reach of 0 feet, meaning they can't reach into adjacent squares. They must enter an opponent's square to attack in melee. This provokes an attack of opportunity from the opponent. You can attack into your own square if you need to, so you can attack such creatures normally. Since they have no natural reach, they do not threaten the squares around them. You can move past them without provoking attacks of opportunity. They also can't flank an enemy.

Large, Huge, Gargantuan, and Colossal Creatures: Very large creatures take up more than 1 square.

Creatures that take up more than 1 square typically have a natural reach of 10 feet or more, meaning that they can reach targets even if they aren't in adjacent squares.

Unlike when someone uses a reach weapon, a creature with greater than normal natural reach (more than 5 feet) still threatens squares adjacent to it. A creature with greater than normal natural reach usually gets an attack of opportunity against you if you approach it, because you must enter and move within the range of its reach before you can attack it. (This attack of opportunity is not provoked if you take a 5-foot step.)

Large or larger creatures using reach weapons can strike up to double their natural reach but strike at their natural reach or less with a -4 circumstance penalty.

TABLE 9-3: CREATURE SIZE AND SCALE

Creature Size	Space[1]	Natural Reach[1]
Fine	1/2 ft.	0
Diminutive	1 ft.	0
Tiny	2-1/2 ft.	0
Small	5 ft.	5 ft.
Medium	5 ft.	5 ft.
Large (tall)	10 ft.	10 ft.
Large (long)	10 ft.	5 ft.
Huge (tall)	15 ft.	15 ft.
Huge (long)	15 ft.	10 ft.
Gargantuan (tall)	20 ft.	20 ft.
Gargantuan (long)	20 ft.	15 ft.
Colossal (tall)	30 ft.	30 ft.
Colossal (long)	30 ft.	20 ft.

1 These values are typical for creatures of the indicated size. Some exceptions exist.

Combat Modifiers

Favorable and Unfavorable Conditions

TABLE 9-4: ATTACK ROLL MODIFIERS

Attacker is . . .	Melee	Ranged
Dazzled	-1	-1
Entangled	-2[1]	-2[1]
Flanking defender	+2	---
Invisible	+2[2]	+2[2]
On higher ground	+1	+0
Prone	-4	---[3]
Shaken or frightened	-2	-2
Squeezing through a space	-4	-4

1 An entangled character also takes a -4 penalty to Dexterity, which may affect his attack roll.
2 The defender loses any Dexterity bonus to Defensive Class. This bonus doesn't apply if the target is blinded.
3 Most ranged weapons can't be used while the attacker is prone, but you can use a crossbow or shuriken while prone at no penalty.

TABLE 9-5: DEFENSIVE CLASS MODIFIERS

Defender is . . .	Melee	Ranged
Behind cover	+4	+4
Blinded	-2[1]	-2[1]
Concealed or invisible	- See Concealment -	
Cowering	-2[1]	-2[1]
Entangled	+0[2]	+0[2]
Flat-footed (such as surprised, balancing, climbing)	+0[1]	+0[1]
Grappling (but attacker is not)	+0[1]	+0[1, 3]
Helpless (such as paralyzed, sleeping, or bound)	-4[4]	+0[4]
Kneeling or sitting	-2	+2
Pinned	-4[4]	+0[4]
Prone	-4	+4
Squeezing through a space	-4	-4
Stunned	-2[1]	-2[1]

1 The defender loses any Dexterity bonus to Defensive Class.
2 An entangled character takes a -4 penalty to Dexterity.
3 Roll randomly to see which grappling combatant you strike. That defender loses any Dexterity bonus to Defensive Class.
4 Treat the defender's Dexterity as 0 (-5 modifier). Rogues can sneak attack helpless or pinned defenders.

Cover

To determine whether your target has cover from your ranged attack, choose a corner of your square. If any line from this corner to any corner of the target's square passes through a square or border that blocks line of effect or provides cover, or through a square occupied by a creature, the target has cover (+4 to Defensive Class).

When making a melee attack against an adjacent target, your target has cover if any line from your square to the target's square goes through a wall (including a low wall). When making a melee attack against a target that isn't adjacent to you (such as with a reach weapon), use the rules for determining cover from ranged attacks.

Low Obstacles and Cover: A low obstacle (such as a wall no higher than half your height) provides cover, but only to creatures within 30 feet (6 squares) of it. The attacker can ignore the cover if he's closer to the obstacle than his target.

Cover and Attacks of Opportunity: You can't execute an attack of opportunity against an opponent with cover relative to you.

Cover and Reflex Saves: Cover grants you a +2 bonus on Reflex saves against attacks that originate or burst out from a point on the other side of the cover from you. Note that spread effects can extend around corners and thus negate this cover bonus.

Cover and Hide Checks: You can use cover to make a Hide check. Without cover, you usually need concealment (see below) to make a Hide check.

Soft Cover: Creatures, even your enemies, can provide you with cover against melee attacks, giving you a +4 bonus to Defensive Class. However, such soft cover provides no bonus on Reflex saves, nor does soft cover allow you to make a Hide check.

Big Creatures and Cover: Any creature with a space larger than 5 feet (1 square) determines cover against melee attacks slightly differently than smaller creatures do. Such a creature can choose any square that it occupies to determine if an opponent has cover against its melee attacks. Similarly, when making a melee attack against such a creature, you can pick any of the squares it occupies to determine if it has cover against you.

Total Cover: If you don't have line of effect to your target he is considered to have total cover from you. You can't make an attack against a target that has total cover.

Varying Degrees of Cover: In some cases, cover may provide a greater bonus to Defensive Class and Reflex saves. In such situations the normal cover bonuses to Defensive Class and Reflex saves can be doubled (to +8 and +4, respectively). A creature with this improved cover effectively gains improved evasion against any attack to which the Reflex save bonus applies. Furthermore, improved cover provides a +10 bonus on Hide checks.

Concealment

To determine whether your target has concealment from your ranged attack, choose a corner of your square. If any line from this corner to any corner of the target's square passes through a square or border that provides concealment, the target has concealment.

When making a melee attack against an adjacent target, your target has concealment if his space is entirely within an effect that grants concealment. When making a melee attack against a target that isn't adjacent to you use the rules for determining concealment from ranged attacks.

In addition, some magical effects provide concealment against all attacks, regardless of whether any intervening concealment exists.

Concealment Miss Chance: Concealment gives the subject of a successful attack a 20% chance that the attacker missed because of the concealment. If the attacker hits, the defender must make a miss chance percentile roll to avoid being struck. Multiple concealment conditions do not stack.

Concealment and Hide Checks: You can use concealment to make a Hide check. Without concealment, you usually need cover to make a Hide check.

Total Concealment: If you have line of effect to a target but not line of sight he is considered to have total concealment from you. You can't attack an opponent that has total concealment, though you can attack into a square that you think he occupies. A successful attack into a square occupied by an enemy with total concealment has a 50% miss chance (instead of the normal 20% miss chance for an opponent with concealment).

You can't execute an attack of opportunity against an opponent with total concealment, even if you know what square or squares the opponent occupies.

Ignoring Concealment: Concealment isn't always effective. A shadowy area or darkness doesn't provide any concealment against an opponent with darkvision. Characters with low-light vision can see clearly for a greater distance with the same light source than other characters. Although invisibility provides total concealment, sighted opponents may still make Spot checks to notice the location of an invisible character. An invisible character gains a +20 bonus on Hide checks if moving, or a +40 bonus on Hide checks when not moving (even though opponents can't see you, they might be able to figure out where you are from other visual clues).

Varying Degrees of Concealment: Certain situations may provide more or less than typical concealment, and modify the miss chance accordingly.

Flanking

When making a melee attack, you get a +2 flanking bonus if your opponent is threatened by a character or creature friendly to you on the opponent's opposite border or opposite corner.

When in doubt about whether two friendly characters flank an opponent in the middle, trace an imaginary line between the two friendly characters' centers. If the line passes through opposite borders of the opponent's space (including corners of those borders), then the opponent is flanked.

Exception: If a flanker takes up more than 1 square, it gets the flanking bonus if any square it occupies counts for flanking.

Only a creature or character that threatens the defender can help an attacker get a flanking bonus.

Creatures with a reach of 0 feet can't flank an opponent.

Helpless Defenders

A helpless opponent is someone who is bound, sleeping, paralyzed, unconscious, or otherwise at your mercy.

Regular Attack: A helpless character takes a -4 penalty to Defensive Class against melee attacks, but no penalty to Defensive Class against ranged attacks.

A helpless defender can't use any Dexterity bonus to Defensive Class. In fact, his Dexterity score is treated as if it were 0 and his Dexterity modifier to Defensive Class as if it were -5.

Coup de Grace: As a full-round action, you can use a melee weapon to deliver a coup de grace to a helpless opponent. You can also use a bow or crossbow, provided you are adjacent to the target.

You automatically hit, dealing damage as if the Defensive Class of the target was 0. If the defender survives the damage, he must make a Fortitude save (DC 10 + damage dealt) or die.

Delivering a coup de grace provokes attacks of opportunity from threatening opponents.

You can't deliver a coup de grace against a creature that is immune to critical hits. You can deliver a coup de grace against a creature with total concealment, but doing this requires two consecutive full-round actions (one to "find" the creature once you've determined what square it's in, and one to deliver the coup de grace).

Special Attacks

TABLE 9-6: SPECIAL ATTACKS

Special Attack	Brief Description
Activate Power	Use a psionic ability
Aid another	Grant an ally a +2 bonus on attacks or Defensive Class
Bull rush	Push an opponent back 5 feet or more
Charge	Move up to twice your speed and attack with +2 bonus
Disarm	Knock a weapon from your opponent's hands
Feint	Negate your opponent's Dex bonus to Defensive Class
Grapple	Wrestle with an opponent
Overrun	Plow past or over an opponent as you move
Sunder	Strike an opponent's weapon or shield
Throw splash weapon	Throw container of dangerous liquid at target
Trip	Trip an opponent
Two-weapon fighting	Fight with a melee weapon in each hand
Two-gun shooting	Shoot with a firearm in each hand

Activate Power

Only a psionic character can use this attack. He attempts to reach out with a psionic ability he has, to harm another creature or object. This follows the same rules as a ranged combat attack, with few exceptions. The special considerations for a psionic attack are listed below:

* The character's attack roll is replaced by a check against his psionic skill for the ability he is using.

* Just making this skill check costs the character the listed amount of Vitality at the end of his turn.

* The character can avoid provoking an attack of opportunity by taking a -5 penalty to his psionic skill check.

* If the character's total skill check, without ranged combat modifiers, is not at least 10, then he fails to activate the power regardless of whether or not he would have hit the target.

* If the character is using the Mental Fist Psychokinetic power, he can attempt to Disarm or Trip with this attack.

* If the character is using the Bull Rush Psychokinetic power, he can attempt to Bull Rush with this attack.

* If the character is using the Warp Item, Mental Lance, or Disintegrate Psychokinetic power, he can attempt to Sunder with this attack.

Aid Another

In melee combat, you can help a friend attack or defend by distracting or interfering with an opponent. If you're in position to make a melee attack on an opponent that is engaging a friend in melee combat, you can attempt to aid your friend as a standard action. You make an attack roll against Defensive Class 10. If you succeed, your friend gains either a +2 bonus on his next attack roll against that opponent or a +2 bonus to Defensive Class against that opponent's next attack (your choice), as long as that attack comes before the beginning of your next turn. Multiple characters can aid the same friend, and similar bonuses stack.

You can also use this standard action to help a friend in other ways, such as when he is affected by a spell, or to assist another character's skill check.

Bull Rush

You can make a bull rush as a standard action (an attack) or as part of a charge (see Charge, below). When you make a bull rush, you attempt to push an opponent straight back instead of damaging him. You can only bull rush an opponent who is one size category larger than you, the same size, or smaller.

Initiating a Bull Rush: First, you move into the defender's space. Doing this provokes an attack of opportunity from each opponent that threatens you, including the defender. (If you have the Improved Bull Rush feat, you don't provoke an attack of opportunity from the defender.) Any attack of opportunity made by anyone other than the defender against you during a bull rush has a 25% chance of accidentally targeting the defender instead, and any attack of opportunity by anyone other than you against the defender likewise has a 25% chance of accidentally targeting you. (When someone makes an attack of opportunity, make the attack roll and then roll to see whether the attack went astray.)

Second, you and the defender make opposed Strength checks. You each add a +4 bonus for each size category you are larger than Medium or a -4 penalty for each size category you are smaller than Medium. You get a +2 bonus if you are charging. The defender gets a +4 bonus if he has more than two legs or is otherwise exceptionally stable.

Bull Rush Results: If you beat the defender's Strength check result, you push him back 5 feet. If you wish to move with the defender, you can push him back an additional 5 feet for each 5 points by which your check result is greater than the defender's check result. You can't, however, exceed your normal movement limit. (*Note:* The defender provokes attacks of opportunity if he is moved. So do you, if you move with him. The two of you do not provoke attacks of opportunity from each other, however.)

If you fail to beat the defender's Strength check result, you move 5 feet straight back to where you were before you moved into his space. If that space is occupied, you fall prone in that space.

Charge

Charging is a special full-round action that allows you to move up to twice your speed and attack during the action. However, it carries tight restrictions on how you can move.

Movement During a Charge: You must move before your attack, not after. You must move at least 10 feet (2 squares) and may move up to double your speed directly toward the designated opponent.

You must have a clear path toward the opponent, and nothing can hinder your movement (such as difficult terrain or obstacles). Here's what it means to have a clear path. First, you must move to the closest space from which you can attack the opponent. (If this space is occupied or otherwise blocked, you can't charge.) Second, if any line from your starting space to the ending space passes through a square that blocks movement, slows movement, or contains a creature (even an ally), you can't charge. (Helpless creatures don't stop a charge.)

If you don't have line of sight to the opponent at the start of your turn, you can't charge that opponent.

You can't take a 5-foot step in the same round as a charge.

If you are able to take only a standard action or a move action on your turn, you can still charge, but you are only allowed to move up to your speed (instead of up to double your speed). You can't use this option unless you are restricted to taking only a standard action or move action on your turn.

Attacking on a Charge: After moving, you may make a single melee attack. You get a +2 bonus on the attack roll. and take a -2 penalty to your Defensive Class until the start of your next turn.

A charging character gets a +2 bonus on the Strength check made to bull rush or overrun an opponent (see Bull Rush, above, and Overrun, below).

Even if you have extra attacks, such as from having a high enough base attack bonus or from using multiple

weapons, you only get to make one attack during a charge.

Weapons Readied against a Charge: Spears, tridents, and certain other piercing weapons deal double damage when readied (set) and used against a charging character.

Disarm

As a melee attack, you may attempt to disarm your opponent. If you do so with a weapon, you knock the opponent's weapon out of his hands and to the ground. If you attempt the disarm while unarmed, you end up with the weapon in your hand.

If you're attempting to disarm a melee weapon, follow the steps outlined here. If the item you are attempting to disarm isn't a melee weapon the defender may still oppose you with an attack roll, but takes a penalty and can't attempt to disarm you in return if your attempt fails.

Step 1: Attack of Opportunity. You provoke an attack of opportunity from the target you are trying to disarm. (If you have the Improved Disarm feat, you don't incur an attack of opportunity for making a disarm attempt.) If the defender's attack of opportunity deals any damage, your disarm attempt fails.

Step 2: Opposed Rolls. You and the defender make opposed attack rolls with your respective weapons. The wielder of a two-handed weapon on a disarm attempt gets a +4 bonus on this roll, and the wielder of a light weapon takes a -4 penalty. (An unarmed strike is considered a light weapon, so you always take a penalty when trying to disarm an opponent by using an unarmed strike.) If the combatants are of different sizes, the larger combatant gets a bonus on the attack roll of +4 per difference in size category. If the targeted item isn't a melee weapon, the defender takes a -4 penalty on the roll.

Step Three: Consequences. If you beat the defender, the defender is disarmed. If you attempted the disarm action unarmed, you now have the weapon. If you were armed, the defender's weapon is on the ground in the defender's square.

If you fail on the disarm attempt, the defender may immediately react and attempt to disarm you with the same sort of opposed melee attack roll. His attempt does not provoke an attack of opportunity from you. If he fails his disarm attempt, you do not subsequently get a free disarm attempt against him.

Grabbing Items

You can use a disarm action to snatch an item worn by the target. If you want to have the item in your hand, the disarm must be made as an unarmed attack.

If the item is poorly secured or otherwise easy to snatch or cut away the attacker gets a +4 bonus. Unlike on a normal disarm attempt, failing the attempt doesn't allow the defender to attempt to disarm you. This otherwise functions identically to a disarm attempt, as noted above.

You can't snatch an item that is well secured unless you have pinned the wearer (see Grapple). Even then, the defender gains a +4 bonus on his roll to resist the attempt.

Feint

Feinting is a standard action. To feint, make a Bluff check opposed by a Sense Motive check by your target. The target may add his base attack bonus to this Sense Motive check. If your Bluff check result exceeds your target's Sense Motive check result, the next melee attack you make against the target does not allow him to use his Dexterity bonus to Defensive Class (if any). This attack must be made on or before your next turn.

When feinting in this way against a nonhumanoid you take a -4 penalty. Against a creature of animal Intelligence (1 or 2), you take a -8 penalty. Against a nonintelligent creature, it's impossible.

Feinting in combat does not provoke attacks of opportunity.

Feinting as a Move Action: With the Improved Feint feat, you can attempt a feint as a move action instead of as a standard action.

Grapple

Grapple Checks

Repeatedly in a grapple, you need to make opposed grapple checks against an opponent. A grapple check is like a melee attack roll. Your attack bonus on a grapple check is: Base attack bonus + Strength modifier + special size modifier, unlike regular attacks.

Special Size Modifier: The special size modifier for a grapple check is as follows: Colossal +16, Gargantuan +12, Huge +8, Large +4, Medium +0, Small -4, Tiny -8, Diminutive -12, Fine -16. Use this number in place of the normal size modifier you use when making an attack roll.

Starting a Grapple

To start a grapple, you need to grab and hold your target. Starting a grapple requires a successful melee attack roll. If you get multiple attacks, you can attempt to start a grapple multiple times (at successively lower base attack bonuses).

Step 1: Attack of Opportunity. You provoke an attack of opportunity from the target you are trying to grapple. If the attack of opportunity deals damage, the grapple attempt fails. (Certain monsters do not provoke attacks of opportunity when they attempt to grapple, nor do characters with the Improved Grapple feat.) If the attack of opportunity misses or fails to deal damage, proceed to Step 2.

Step 2: Grab. You make a melee touch attack to grab the target. If you fail to hit the target, the grapple attempt fails. If you succeed, proceed to Step 3.

Step 3: Hold. Make an opposed grapple check as a free action.

If you succeed, you and your target are now grappling, and you deal damage to the target as if with an unarmed strike.

If you lose, you fail to start the grapple. You automatically lose an attempt to hold if the target is two or more size categories larger than you are.

In case of a tie, the combatant with the higher grapple check modifier wins. If this is a tie, roll again to break the tie.

Step 4: Maintain Grapple. To maintain the grapple

for later rounds, you must move into the target's space. (This movement is free and doesn't count as part of your movement in the round.)

Moving, as normal, provokes attacks of opportunity from threatening opponents, but not from your target.

If you can't move into your target's space, you can't maintain the grapple and must immediately let go of the target. To grapple again, you must begin at Step 1.

Grappling Consequences

While you're grappling, your ability to attack others and defend yourself is limited.

No Threatened Squares: You don't threaten any squares while grappling.

No Dexterity Bonus: You lose your Dexterity bonus to Defensive Class (if you have one) against opponents you aren't grappling. (You can still use it against opponents you are grappling.)

No Movement: You can't move normally while grappling. You may, however, make an opposed grapple check (see below) to move while grappling.

If You're Grappling

When you are grappling (regardless of who started the grapple), you can perform any of the following actions. Some of these actions take the place of an attack (rather than being a standard action or a move action). If your base attack bonus allows you multiple attacks, you can attempt one of these actions in place of each of your attacks, but at successively lower base attack bonuses.

Activate a Magic Item: You can activate a magic item, as long as the item doesn't require a spell completion trigger. You don't need to make a grapple check to activate the item.

Attack Your Opponent: You can make an attack with an unarmed strike, natural weapon, or light weapon against another character you are grappling. You take a -4 penalty on such attacks.

You can't attack with two weapons while grappling, even if both are light weapons.

Damage Your Opponent: While grappling, you can deal damage to your opponent equivalent to an unarmed strike. Make an opposed grapple check in place of an attack. If you win, you deal Vitality damage as normal for your unarmed strike (1d3 points for Medium attackers or 1d2 points for Small attackers, plus Strength modifiers). If you want to deal lethal damage, you take a -4 penalty on your grapple check.

Draw a Light Weapon: You can draw a light weapon as a move action with a successful grapple check.

Escape from Grapple: You can escape a grapple by winning an opposed grapple check in place of making an attack. You can make an Escape Artist check in place of your grapple check if you so desire, but this requires a standard action. If more than one opponent is grappling you, your grapple check result has to beat all their individual check results to escape. (Opponents don't have to try to hold you if they don't want to.) If you escape, you finish the action by moving into any space adjacent to your opponent(s).

Move: You can move half your speed (bringing all others engaged in the grapple with you) by winning an opposed grapple check. This requires a standard action, and you must beat all the other individual check results to move the grapple.

Note: You get a +4 bonus on your grapple check to move a pinned opponent, but only if no one else is involved in the grapple.

Pin Your Opponent: You can hold your opponent immobile for 1 round by winning an opposed grapple check (made in place of an attack). Once you have an opponent pinned, you have a few options available to you (see below).

Break Another's Pin: If you are grappling an opponent who has another character pinned, you can make an opposed grapple check in place of an attack. If you win, you break the hold that the opponent has over the other character. The character is still grappling, but is no longer pinned.

Use Opponent's Weapon: If your opponent is holding a light weapon, you can use it to attack him. Make an opposed grapple check (in place of an attack). If you win, make an attack roll with the weapon with a -4 penalty (doing this doesn't require another action).

You don't gain possession of the weapon by performing this action.

If You're Pinning an Opponent

You can attempt to damage your opponent with an opposed grapple check, you can attempt to use your opponent's weapon against him, or you can attempt to move the grapple (all described above). At your option, you can prevent a pinned opponent from speaking.

You can use a disarm action to remove or grab away a well secured object worn by a pinned opponent, but he gets a +4 bonus on his roll to resist your attempt (see Disarm).

You may voluntarily release a pinned character as a free action; if you do so, you are no longer considered to be grappling that character (and vice versa).

You can't draw or use a weapon (against the pinned character or any other character), escape another's grapple, pin another character, or break another's pin while you are pinning an opponent.

If You're Pinned by an Opponent

When an opponent has pinned you, you are held immobile (but not helpless) for 1 round. While you're pinned, you take a -4 penalty to your Defensive Class against opponents other than the one pinning you. At your opponent's option, you may also be unable to speak. On your turn, you can try to escape the pin by making an opposed grapple check in place of an attack. You can make an Escape Artist check in place of your grapple check if you want, but this requires a standard action. If you win, you escape the pin, but you're still grappling.

Joining a Grapple

If your target is already grappling someone else, you can use an attack to start a grapple, as above, except that the target doesn't get an attack of opportunity against you, and your grab automatically succeeds. You still have to make a successful opposed grapple check to become part of the grapple.

If there are multiple opponents involved in the grapple, you pick one to make the opposed grapple check against.

Multiple Grapplers

Several combatants can be in a single grapple. Up to four combatants can grapple a single opponent in a given round. Creatures that are one or more size categories smaller than you count for half, creatures that are one size category larger than you count double, and creatures two or more size categories larger count quadruple.

When you are grappling with multiple opponents, you choose one opponent to make an opposed check against. The exception is an attempt to escape from the grapple; to successfully escape, your grapple check must beat the check results of each opponent.

Overrun

You can attempt an overrun as a standard action taken during your move, or as part of a charge. (In general, you cannot take a standard action during a move; this is an exception.) With an overrun, you attempt to plow past or over your opponent (and move through his square) as you move. You can only overrun an opponent who is one size category larger than you, the same size, or smaller. You can make only one overrun attempt per round.

If you're attempting to overrun an opponent, follow these steps.

Step 1: Attack of Opportunity. Since you begin the overrun by moving into the defender's space, you provoke an attack of opportunity from the defender.

Step 2: Opponent Avoids? The defender has the option to simply avoid you. If he avoids you, he doesn't suffer any ill effect.

If you were attempting the overrun as part of a charge, you may keep moving. (You can always move through a square occupied by someone who lets you by.) In either case, the overrun attempt doesn't count against your actions this round (except for any movement required to enter the opponent's square). If your opponent doesn't avoid you, move to Step 3.

Step 3: Opponent Blocks? If your opponent blocks you, make a Strength check opposed by the defender's Dexterity or Strength check (whichever ability score has the higher modifier). A combatant gets a +4 bonus on the check for every size category he is larger than Medium or a -4 penalty for every size category he is smaller than Medium. You gain a +2 bonus on your Strength check if you made the overrun as part of a charge. The defender gets a +4 bonus on his check if he has more than two legs or is otherwise more stable than a normal humanoid. If you win, you knock the defender prone. If you lose, the defender may immediately react and make a Strength check opposed by your Dexterity or Strength check (including the size modifiers noted above, but no other modifiers) to try to knock you prone.

Step 4: Consequences. If you succeed in knocking your opponent prone, you can continue your movement as normal. If you fail and are knocked prone in turn, you have to move 5 feet back the way you came and fall prone, ending your movement there. If you fail but are not knocked prone, you have to move 5 feet back the way you came, ending your movement there. If that square is occupied, you fall prone in that square.

Improved Overrun: If you have the Improved Overrun feat, your target may not choose to avoid you.

Mounted Overrun (Trample): If you attempt an overrun while mounted, your mount makes the Strength check to determine the success or failure of the overrun attack (and applies its size modifier, rather than yours). If you have the Trample feat and attempt an overrun while mounted, your target may not choose to avoid you, and if you knock your opponent prone with the overrun, your mount may make one hoof attack against your opponent.

Sunder

You can use a melee attack with a slashing or bludgeoning weapon to strike a weapon or object that your opponent is holding. If you're attempting to sunder a weapon or object, follow the steps outlined here. (Attacking held objects other than weapons is covered below.)

Step 1: Attack of Opportunity. You provoke an attack of opportunity from the target whose weapon or shield you are trying to sunder. (If you have the Improved Sunder feat, you don't incur an attack of opportunity for making the attempt.)

Step 2: Opposed Rolls. You and the defender make opposed attack rolls with your respective weapons. The wielder of a two-handed weapon on a sunder attempt gets a +4 bonus on this roll, and the wielder of a light weapon takes a -4 penalty. If the combatants are of different sizes, the larger combatant gets a bonus on the attack roll of +4 per difference in size category.

Step 3: Consequences. If you beat the defender, roll damage and deal it to the weapon or shield. Each weapon, armor, and item has it's Hardness and Hit Points listed in it's description..

If you fail the sunder attempt, you don't deal any damage.

Sundering a Carried or Worn Object: You don't use an opposed attack roll to damage a carried or worn object. Instead, just make an attack roll against the object's Defensive Class. A carried or worn object's Defensive Class is equal to 10 + its size modifier + the Dexterity modifier of the carrying or wearing character. Attacking a carried or worn object provokes an attack of opportunity just as attacking a held object does. To attempt to snatch away an item worn by a defender rather than damage it, see Disarm.

Sundering Armor: You can sunder armor worn by another character as a regular Sunder attack that provokes an attack of opportunity. There is no opposed attack roll to hit the armor, instead you have to strike the armor's Defensive Class. A worn suit of armor has a Defensive Class equal to 10 + wearer's Size modifier + wearer's Dexterity modifier. Unlike regular attacks, a natural 20 *is* not an automatic hit! It only protects half as much from the attack. Each point of damage dealt to it after it's lowered Damage Reduction or Energy Resistance is subtracted is treated as a penetration of the armor, being applied directly to it's Damage Threshold! Only melee attacks that deal Hit Point damage can be used to Sunder armor.

Throw Splash Weapon

A splash weapon is a ranged weapon that breaks or explodes on impact, splashing or scattering its contents over its target and nearby creatures or objects. To attack with a splash weapon, make a ranged touch attack against the target. Thrown weapons require no weapon proficiency, so you don't take the -4 non-proficiency penalty. A hit deals direct hit damage to the target, and splash damage to all creatures within 5 feet of the target, or follows the normal rules for explosives.

You can instead target a specific 5-ft square. Treat this as a ranged attack against Defensive Class 5. However, if you target a square, creatures in that square and all adjacent squares are dealt the splash damage, and the direct hit damage is not dealt to any creature. (You can't target a square occupied by a creature, such as a Large or larger creature; in this case, you're aiming at the creature.)

If you miss the target (whether aiming at a creature or a grid intersection), roll for Ranged Weapon Scatter.

After you determine where the weapon landed, it deals splash damage to all creatures in that square and all adjacent squares. If it landed in a square occupied by another creature, make an attack roll against that creature with a flat d20 roll. If the attack roll hits, then the creature was struck, otherwise it just takes splash damage.

Trip

You can try to trip an opponent as an unarmed melee attack. You can only trip an opponent who is one size category larger than you, the same size, or smaller.

Making a Trip Attack: Make an unarmed melee touch attack against your target. This provokes an attack of opportunity from your target as normal for unarmed attacks.

If your attack succeeds, make a Strength check opposed by the defender's Dexterity or Strength check (whichever ability score has the higher modifier). A combatant gets a +4 bonus for every size category he is larger than Medium or a -4 penalty for every size category he is smaller than Medium. The defender gets a +4 bonus on his check if he has more than two legs or is otherwise more stable than a normal humanoid. If you win, you trip the defender. If you lose, the defender may immediately react and make a Strength check opposed by your Dexterity or Strength check to try to trip you.

Avoiding Attacks of Opportunity: If you have the Improved Trip feat, or if you are tripping with a weapon (see below), you don't provoke an attack of opportunity for making a trip attack.

Being Tripped (Prone): A tripped character is prone. Standing up is a move action.

Tripping a Mounted Opponent: You may make a trip attack against a mounted opponent. The defender may make a Ride check in place of his Dexterity or Strength check. If you succeed, you pull the rider from his mount.

Tripping with a Weapon: Some weapons can be used to make trip attacks. In this case, you make a melee touch attack with the weapon instead of an unarmed melee touch attack, and you don't provoke an attack of opportunity.

If you are tripped during your own trip attempt, you can drop the weapon to avoid being tripped.

Two-Gun Shooting

If you shoot a second firearm in your off hand, you can get one extra attack per round with that weapon. You suffer a -6 penalty with your regular attack or attacks with your primary hand and a -10 penalty to the attack with your off hand when you fight this way. You can reduce these penalties in two ways:

•If your off-hand firearm weights no more than 1/4th your Strength then it is a light weapon, the penalties are reduced by 2 each.

•The Two-Gun Shooting feat lessens the primary hand penalty by 2, and the off-hand penalty by 6.

Table: Two-Gun Shooting Penalties summarizes the interaction of all these factors.

TABLE 9-7: TWO-GUN SHOOTING PENALTIES

Circumstances	Primary Hand	Off Hand
Normal penalties	-6	-10
Off-hand firearm is light	-4	-8
Two-Gun Shooting feat	-4	-4
Off-hand firearm is light and Two-Gun Shooting feat	-2	-2

Two-Weapon Fighting

If you wield a second weapon in your off hand, you can get one extra attack per round with that weapon. You suffer a -6 penalty with your regular attack or attacks with your primary hand and a -10 penalty to the attack with your off hand when you fight this way. You can reduce these penalties in two ways:

•If your off-hand weapon weights no more than 1/4th your Strength then it is a light weapon, the penalties are reduced by 2 each. (An unarmed strike is always considered light.)

•The Two-Weapon Fighting feat lessens the primary hand penalty by 2, and the off-hand penalty by 6.

Table: Two-Weapon Fighting Penalties summarizes the interaction of all these factors.

TABLE 9-8: TWO-WEAPON FIGHTING PENALTIES

Circumstances	Primary Hand	Off Hand
Normal penalties	-6	-10
Off-hand weapon is light	-4	-8
Two-Weapon Fighting feat	-4	-4
Off-hand weapon is light and Two-Weapon Fighting feat	-2	-2

Double Weapons: You can use a double weapon to make an extra attack with the off-hand end of the weapon as if you were fighting with two weapons. The penalties apply as if the off-hand end of the weapon were a light weapon.

Thrown Weapons: The same rules apply when you throw a weapon from each hand. Treat a dart or shuriken as a light weapon when used in this manner, and treat a bolas, javelin, net, or sling as a one-handed weapon.

Special Initiative Actions

Here are ways to change when you act during combat by altering your place in the initiative order.

Delay

By choosing to delay, you take no action and then act normally on whatever initiative count you decide to act. When you delay, you voluntarily reduce your own initiative result for the rest of the combat. When your new, lower initiative count comes up later in the same round, you can act normally. You can specify this new initiative result or just wait until some time later in the round and act then, thus fixing your new initiative count at that point. You never get back the time you spend waiting to see what's going to happen. You can't, however, interrupt anyone else's action (as you can with a readied action).

Initiative Consequences of Delaying: Your initiative result becomes the count on which you took the delayed action. If you come to your next action and have not yet performed an action, you don't get to take a delayed action (though you can delay again).

If you take a delayed action in the next round, before your regular turn comes up, your initiative count rises to that new point in the order of battle, and you do not get your regular action that round.

Ready

The ready action lets you prepare to take an action later, after your turn is over but before your next one has begun. Readying is a standard action. It does not provoke an attack of opportunity (though the action that you ready might do so).

Readying an Action: You can ready a standard action, a move action, or a free action. To do so, specify the action you will take and the conditions under which you will take it. Then, any time before your next action, you may take the readied action in response to that condition. The action occurs just before the action that triggers it. If the triggered action is part of another character's activities, you interrupt the other character. Assuming he is still capable of doing so, he continues his actions once you complete your readied action. Your initiative result changes. For the rest of the encounter, your initiative result is the count on which you took the readied action, and you act immediately ahead of the character whose action triggered your readied action.

You can take a 5-foot step as part of your readied action, but only if you don't otherwise move any distance during the round.

Initiative Consequences of Readying: Your initiative result becomes the count on which you took the readied action. If you come to your next action and have not yet performed your readied action, you don't get to take the readied action (though you can ready the same action again). If you take your readied action in the next round, before your regular turn comes up, your initiative count rises to that new point in the order of battle, and you do not get your regular action that round.

MOUNTED COMBAT

Mounts in Combat: Many animals can serve readily as combat steeds. Terraforming animals, pets, and farming animals, however, are frightened by combat. If you don't dismount, you must make a DC 20 Ride check each round as a move action to control such a horse. If you succeed, you can perform a standard action after the move action. If you fail, the move action becomes a full round action and you can't do anything else until your next turn.

Your mount acts on your initiative count as you direct it. You move at its speed, but the mount uses its action to move.

A mount must be one size category higher than you are. For simplicity, assume that you share your mount's space during combat.

Combat while Mounted: With a DC 5 Ride check, you can guide your mount with your knees so as to use both hands to attack or defend yourself. This is a free action.

When you attack a creature smaller than your mount that is on foot, you get the +1 bonus on melee attacks for being on higher ground. If your mount moves more than 5 feet, you can only make a single melee attack. Essentially, you have to wait until the mount gets to your enemy before attacking, so you can't make a full attack. Even at your mount's full speed, you don't take any penalty on melee attacks while mounted.

If your mount charges, you also take the Defensive Class penalty associated with a charge. If you make an attack at the end of the charge, you receive the bonus gained from the charge.

You can use ranged weapons while your mount is taking a double move, but at a -4 penalty on the attack roll. You can use ranged weapons while your mount is running (quadruple speed), at a -8 penalty. In either case, you make the attack roll when your mount has completed half its movement. You can make a full attack with a ranged weapon while your mount is moving. Likewise, you can take move actions normally

If Your Mount Falls in Battle: If your mount falls, you have to succeed on a DC 15 Ride check to make a soft fall and take no damage. If the check fails, you take 1d6 points of damage.

If You Are Dropped: If you are knocked unconscious, you have a 50% chance to stay in the saddle (or 75% if you're in a military saddle). Otherwise you fall and take 1d6 points of damage.

Without you to guide it, your mount avoids combat.

SPECIAL COMBAT MODIFIERS

There are several special modifiers for many combat situations that do not fit into any of the categories listed above. They are collected here.

Encumbrance Penalty

Carrying allot of gear can make a character slow and clumsy. The game effect of this is a Dexterity penalty. This penalty can lower a character's effective Dexterity score, reducing his Defensive Class, Initiative, Reflex save and To-Hit bonus! See Encumbrance Chapter 12: Running the Game for more details.

Heavy Weapon Penalty

Not everybody is strong enough to wield every weapon, at least effectively. This manifests itself as a to-hit penalty based on the difference in the weapon's weight and the character's Strength.

In two hands a character can wield any weapon up to his Strength score in lbs. He has a -1 penalty to hit with it for every pound the weapon is over this amount.

In one hand a character can wield any weapon up to half his Strength score in lbs. He has a -1 penalty to hit for every pound the weapon is over this amount.

Laser and blaster firearms have half the penalty for weight of other firearms, -1 per *two* pounds. This reflect their total lack of recoil.

Once a character's penalty for a weapon's weight exceeds -5, he cannot wield it!

Tripods and bipods can be used to negate the weight penalty of a firearm. It takes a full round to set one up, and the user loses his Dexterity bonus to Defensive Class while using the device.

A prone character using a firearm can ignore the first two points of weight penalty for the firearm.

Size Restrictions

A character can only wield weapons of up to his size category. Such weapons require two hands to wield. Weapons of one size category lower can be wielded in one or two hands. Weapons of two or more size categories lower can only be wielded in one hand.

ROBOT COMBAT

Robots get into fights, either by being attacked or by attacking. A robot engaged in combat is, by and large, treated like a normal creature of the same size. They have traits indicative to the "Robot" creature type, which are detailed in the Roots section.

Like creatures, robots too have class levels. Unlike creatures, a robot's class level and abilities are *totally* governed by it's programming and hardware. It's "level" is based on the Robotic OS rating it has, while it's "class" is determined by the best combat program it is running. All of it's skills, and feats, are based on it's programming. It's saving throws are based on it's design and computer Quality. Even a robot not designed for combat will fight to preserve it's existence, unless commanded to die by it's owner or authorized representative. The reason for this is simple: robots are expensive. Unless it is running a Weapon Proficiency program, robots can only use their limbs and bodies to defend themselves. This is identical to a character using the Improved Unarmed Combat feat. The table below shows what Base Attack bonuses robots get according to their programming and Robotic OS level.

TABLE 9-9: ROBOT COMBAT LEVELS

OS	Weapon Proficiency		
Level	None	Simple	Martial
1	+0	+0	+1
2	+0	+1	+2
3	+0	+1	+3
4	+0	+2	+4
5	+0	+2	+5
6	+0	+3	+6
7	+0	+3	+7
8	+0	+4	+8
9	+0	+4	+9
10	+0	+5	+10

Damaging Robots

Robots do not have Vitality, have far more Hit Points than living creatures of the same size, and do not feel pain. They are mobile self-directing gear. Like gear, it takes *allot* of punishment to render them inactive, and even ***more*** to destroy them! Unlike many other forms of gear, a robot is so complex that even a little damage can alter detrimentally their ability to function.

For every full 25% of it's Hit Points a robot loses, all of it's Speeds drop by 25%. In addition to this, once it is reduced to 50% of it's Hit Points it suffers a -2 penalty to it's Strength and Dexterity scores, which goes up to a -4 penalty once it is down to 25% or less of it's Hit Points!

Unlike other gear, a robot *can* suffer from Special Damage effects, but it does so in a different manner. If a robot takes more than it's Quality rating in damage after it's armor is applied, or the attacker rolls a natural 20 and exceeds the robot's Defensive Class by at least five, the robot may suffer from it's own type of Special Damage effect. The robot makes a Fortitude save to resist this, same as a living target (DC 10 + damage taken). If they fail the saving throw, then their *Computer* also takes one point of damage for every die rolled for the damage! If the attack was with a Blaster weapon, then this is *two* points per die instead! The computer's Hardness does not apply, as the attack has already breached it's casing (the robot Chassis).

Attacks that deal only Vitality damage are less effective against robots, because they are objects instead of living creatures. If the attack requires the target to have a biology to be effective, then it is totally ignored by the robot. Otherwise Vitality damaging attacks instead deal half their damage as Hit Point damage.

Even though they are technically not alive, hit placement *does* matter when attacking a robot. This means that attackers still get to add the amount they exceeded the robot's defensive Class by to their damage rolls.

VEHICLE COMBAT

Vehicle combat is allot like regular combat, with only a few special considerations. These considerations are listed here.

Firing Arcs

Weapons mounted on a vehicle must be stated with a firing arc as part of their System description. The arcs are "Forward", "Rear", "Left", "Right", "Above", and "Below". A weapon can only attack targets in it's arc, unless it has a mounting that would allow otherwise.

The base-line rule is that a Front-mounted weapon can be used to attack any single target within a 5 ft line in the direction of the weapon's facing. The area a weapon can attack targets within can often be larger than this, as determined by it's mount (see Weapon Pods in Chapter 8: Vehicles). Acquiring a target and lining up a shot within the attack zone are each Move-Equivalent actions.

Every arc has it's opposite arc. The arcs and their opposites are:

Above: The opposite of the Below arc. This arc covers the 90-degree cone in the direction up from the vehicle's direction of acceleration.

Below: The opposite of the Above arc. This arc covers the 90-degree cone in the direction down from the vehicle's direction of acceleration.

Forward: The opposite of the Rear arc. This arc covers the 90-degree cone in the direction of the vehicle's acceleration.

Left: The opposite of the Right arc. This arc covers the 90-degree cone in the direction to the left hand side of the vehicle's acceleration.

Rear: The opposite of the Front arc. This arc covers the 90-degree cone in the direction away from the vehicle's acceleration.

Right: The opposite of the Left arc. This arc covers the 90-degree cone in the direction to the right hand side of the vehicle's acceleration.

Targeting

In order to make an attack with a vehicle's weapons, you must first locate the target, then line up the vehicle's weapons! With the distances and speeds involved in vehicle combat, this can be kind of difficult. Essentially, this requires two specialized actions that are only involved in vehicle combat: Acquire Target and Targeting Run. Another two actions action is only available to somebody in a vehicle: Shake the Lock, and Fire Weapons.

Acquire Target: This is a Move-Equivalent action, but normally only has to be performed once. The pilot of a vehicle trying to attack a target must make a Spot check against the target. The base DC for this check is 10. The pilot makes this check using his Relative Velocity (see below), range penalty for his Sensors (-1 per 10 ft is using his own vision), Sensor Quality as a bonus (if any), and any environmental vision penalties that might apply (or that apply to his Sensors if he is relying on them). The target can make a Hide check to avoid detection, in place of the base DC of 10. If the target is in a vehicle, then he uses the lowest of his Hide and Pilot skill totals for the check. Once a target is acquired, it can then be lined up for an attack with a Targeting Run.

Targeting Run: This is a Move-Equivalent action that can only be performed on a target that you have managed to successfully acquire as a target using the Acquire Target action. The pilot of the vehicle makes a Pilot check modified by the same modifiers as the Acquire Target action, however with a different DC. The DC of the roll is based on the type of Weapon Pod system the vehicle is using. The pilot must choose what firing arc to attack from, and only weapons in Weapon Pods on that arc can be used for the Targeting Run. This is important, as it indicates what direction of travel the vehicle must be going in! Once it has been done successfully, it lasts until the vehicle changes it's firing arc relative to the target, or the target makes a successful Shake the Lock action.

TABLE 9-10: VEHICLE TARGETING RUNS

Pilot DC	Weapon Pod
20	Fixed Aim
15	Tight Arc
5	Turret
10	Wide Arc

Turrets can be used for Targeting Runs into any arc other than the one on their opposite facing and one other chosen when the vehicle was built, as if the weapon was in a Wide Arc. They still do Targeting Runs into their own arcs as Turrets.

Shake the Lock: Pilots of vehicles that have been the successful recipients of a Targeting Run action can try to outmaneuver their pursuers, and break the line of fire. The vehicle's Pilot rolls a Pilot skill check, with a DC equal to their attacker's total result from his Pilot skill check in the Targeting Run action. This roll is modified by the Maneuverability of the vehicle the Pilot is attempting this action in, as shown below. In order to even attempt this check, the vehicle must have a relative Velocity to the pursuer of at least 20 ft/rd. It must move even faster if it wishes to take full advantage of it's Maneuverability. If it does not move fast enough, the Pilot check is modified by the Maneuverability that is *did* move fast enough for. If the check is successful, then the pursuer is treated as if he had not made a successful Targeting Run action. If it succeeds by at least 10, then he has lost the benefits of the Acquire Target action as well!

TABLE 9-11: SHAKING THE LOCK

Pilot Mod	Maneuverability	Minimum Velocity
-20	Relative	20 ft/rd
-15	45/200 ft	50 ft/rd
-10	45/50 ft	100 ft/rd
-5	45/20 ft	250 ft/rd
+0	45/10 ft	500 ft/rd
+5	45/5 ft	1,000 ft/rd
+10	Perfect	2,000 ft/rd

Fire Weapons: As a full-round action the pilot of a vehicle can fire all the weapons on the vehicle, at any targets he has managed to hold a Targeting Run on, so long as each target is within the designated weapon's firing arc. As a standard attack action, he can fire all the weapons in a single firing arc instead. Gunners (operators

who control a weapon, but not the vehicle) can also use this action on their turns.

Relative Velocity

Every 25 ft of Speed that your vehicle is traveling at *relative to the Speed of your target*, imposes a -1 penalty on all your attack rolls against the target. The modifier for one vehicle to attack another due to relative Velocity will also be the modifier for the other vehicle.

Example: Thus two vehicles, each traveling apart from the other with a Velocity (current total Speed) of 100 ft/rd, have a total relative Velocity of 200 ft/rd. This translates into a -8 penalty to attack!

Example: If one vehicle was traveling with a Velocity of 100 ft/rd, and being followed by a vehicle with a Velocity of 25 ft/rd, then the two vehicles have a relative Velocity of 75 ft/rd. This translates into a -3 penalty to attack!

Space Combat

Vehicle combat in space is handled the same as normal, but with a some of important exceptions.

Vehicles in space can perform the Flip-a-Bitch action in order to change their facing, so long as their Maneuverability is at least 45/50 ft or better.

An attacker can make an attack roll against a particular spot in space at a designated time, rather than a vehicle. This is called "Relativistic Combat" and is covered in detail below.

For ease of sue in such vast expanses, a "square" when referring to vehicles involved in space combat is 200 ft on a side.

Weapons used in space can go out to a maximum of 20 range Increments, thanks to the total lack of interference. Range penalties are halved, to -1 per Range Increment.

Flip-a-Bitch: As a Move-Equivalent action, a pilot can use this maneuver to alter their facing to any facing they desire. This requires a Pilot skill check against a DC equal to 5 + the vehicle's Maneuverability, or just 5 if it has Perfect Maneuverability. This action is damn hard (if not impossible) in a 45/200 ft Maneuverability vehicle, and *literally* impossible in a Relative Maneuverability vehicle! If successful, then the facing change was the one the pilot desired. If not then it was random! The best way to determine the new facing is to roll a d6 with "1" being Forward, and "4" being Above, relative to the battle map.

Relativistic Combat

To use this action, the attacker must have the target area in the desired weapon's firing arc. This action is used to attack targets who are so far away, *that the attack takes more than a second to reach them!* Obviously, this only performed in space. This is done by shooting where you hope a target *will be* later on, and is highly unreliable.

The attacker takes his weapon's maximum range (it's Range Increment x 20), and divides the distance to the target area by that amount (rounding down). If the result is 1 or greater, then it is a Relativistic Combat attack. This is a modified Fire Weapons action. Follow the steps below.

#1 Record Target Area

Secretly record (preferably on a piece of note paper) the square you wish the attack to be in. Remember that this is using the 200 ft square of space combat!

#2 Record Time Interval

Secretly record (hopefully on the same paper) the result of the distance divided by the maximum range of the weapon. This is the number of combat rounds until the attack resolves. "1" in this case means the end of the round the shot was made on.

#3 Roll Attack

Make a d20 roll, and record the result openly (maybe even on the outside of the previously noted paper). The modifiers for this roll should be recorded secretly (again, the note paper). Note that this attack is at an -20 penalty due to range.

#4 Resolve Attack

At the end of the combat round that the time interval was for, reveal everything you wrote secretly. Every object in that square has a 10% chance, rolled in order from the largest to the smallest, of being the target of the attack! If the attack misses a target, but more are in the square, keep rolling the 10% chance until all targets have been accounted for or the attack actually hits something.

If the game-master desires, or the battle ground is large enough, a missed attack can have more Time Intervals, and continue being resolved, equal to 2 times it's maximum range, 3 times, and so on. Who knows, in those *really big* space battles, it could even end up hitting something the attacker did not even know was there!

Some space combat vessels, particularly Destroyers, have multiple weapons in one firing arc specifically for Relativistic Combat. The philosophy behind this is that, even at only a 20% chance to get an attack roll and a heavy penalty to hit as well, if you put enough shots in the area then *something* has to hit! Such vehicles usually use around 20 to 40 weapons in the same Weapon Pod, making them very lethal at regular ranges and somewhat reliable in Relativistic combat.

Ramming Speed!

If a vehicle has Acquired Target, it can choose to use *itself* as a weapon on a Targeting Run. It must already be moving in the target's general direction, with the target inside the 90-degree "front" arc. It then makes an Targeting Run with a penalty equal to 1/5th of it's Maneuverability (-20 maximum).

As long as the target has not Shaken the Lock, and the attacker still has it in it's forward arc, the pilot can make an attack roll as soon as the two vehicles occupy the same space. This attack roll is a free action, and can be made either before or after the pilot's regular action.

Each vessel takes damage equal to 1/10th their relative Speed (rounding down), multiplied by the Mass of the *smaller* vehicle, in d6s of damage. The attacker gets to use his adjustment to the damage chart percentile roll for where the damage on BOTH vehicles ends up being dealt.

This attack can be used against creatures as well.

TEN: CHARACTER ADVANCEMENT

EXPERIENCE POINTS (XP)

Experience Points (referred to as XP for short) are a measure of a character's growth and development. He gains them for surviving stressful situations, overcoming foes, and staying true to his own nature. He then spends these points to purchase increased abilities, more feats, languages, and class levels.

The amount of XP a character gets from a enemy is based on a mixture of his ECL as opposed to the enemy's Challenge Rating (CR for short). Player character style enemies, called NPCs (short for Non-Player Characters), have Challenge Ratings equal to their ECL.

To find out the amount of XP a character earns from surviving a Challenge, add +3 to the enemy or trap's Challenge Rating and then subtract the character's ECL, then multiply the result by 100. This represents the amount of XP the character would earn from defeating the enemy all by his lonesome, and should never be less than 100. If the character was part of a group that defeated the enemy, divide the amount of XP he gets by the number of characters in the group, but each person's award is determined separately.

For Example: Five ECL 4 Warriors defeat a Necrol Maintenance Drone (Challenge Rating 2). The Drone's CR +3 is 5, but subtracting a Warrior's ECL gives us a result of 1. Multiplying this by 100 gives us a total of 100 XP that the Warrior would earn for his deed. But wait...he was in a group of five! Dividing the 100 by five results in a total of 20 XP for the Warrior. Each of the other Warriors in the group has the same ECL, so they each get the same amount.

For Example: An ECL 2 Vagabond and a ECL 1 Technician both encounter another Necrol maintenance Drone (CR 2). The Drone's CR +3 is 5, but subtracting each character's ECL gives us a total of 3 and 4 respectively. Multiplying these totals by 100 gives us two results of 300 XP and 400 XP. Due to the fact that they were part of a group of two, each character divides their XP award by the total people in the group. This results in an award of 150 XP for the Vagabond and 200 XP for the Technician.

Traps are treated as enemies, complete with their own Challenge Ratings. All the characters in a group share in the XP for a trap, regardless of who actually sets it off or disarms it.

Characters are considered to be part of the same group if they are either within one round's movement of each-other (and thusly can lend assistance in an emergency), or in constant communication with each-other (which provides other forms of assistance). If a group has split up and is no longer within one round's movement of each-other, then only the portion of the group to deal with the enemy or trap gets any experience for it.

At the end of each adventure, character should be awarded XP based on how well and believably they role-played their characters. This award should be between 100 XP for just hanging back and only participating when their character's actions were most appropriate, to 1000 XP for being constantly "in character" and reacting in a believable and enjoyable fashion. No matter WHAT, every character should be walking out of an adventure with at least the 100 XP award!

Conversion Note: The Dead Stars system uses a purchasing-based experience point system, rather than the normal tiered-accumulation system. This does not make the two incompatible, but makes them mesh together pretty easily. For fractional Challenge Ratings from other products, a 1/2 CR equals 0 CR in Dead Stars, 1/3 CR equals -1 CR in Dead Stars, 1/4 CR equals -2 CR in Dead Stars, 1/6 CR equals -3 CR in Dead Stars, 1/8 CR equals -4 CR in Dead Stars, and 1/10 CR equals -5 CR in Dead Stars.

Low Challenge Ratings

Challenge Ratings below 1 still provide some experience points, but are cumulative before being applied if possible. If a group of creatures is encountered at the same time, and they each have Challenge Ratings of less than 1, then you increase their Challenge Ratings by reducing their effective number. Two creatures of a single below 1 CR of the same value function as a single being of a point higher CR for experience point purposes. Keep doing this until you run out of creatures, or the effective Challenge Rating becomes 1.

ADVANCING A CHARACTER

There are essentially tow factors in improving a character: gaining levels and buying improvements. Both of these are done by spending experience points that your character has earned through adventuring and role-playing.

Buying a Class Level

A class level can be purchased only after an adventure has ended, or during a lull in the adventure, if your GM allows it. Players must be able to provide justifications for why their characters can take each level, otherwise they cannot. A Scholar who spends an adventure running and hiding from an execution team could justify taking a level of Rogue, but not one of Warrior unless they had also engaged in allot of combat during the adventure! This is true of both prestige classes (covered below), and base classes (from Chapter 1: Characters).

Base class levels each cost a varying amount of XP, depending on what level you are buying. You cannot skip levels, however. Before you can buy a given level of a class, you must already have purchased all prior levels in that class. If you are buying a level in your race's Preferred Class you get a 20% discount on it's XP cost. These discounted amounts are listed in parenthesis next to the regular amounts below:

TABLE 10-1: BASIC CLASS LEVEL XP COST

Level	XP Cost	Level	XP Cost
1	1,000 (800)	6	6,000 (4,800)
2	2,000 (1,600)	7	7,000 (6,600)
3	3,000 (2,400)	8	8,000 (7,400)
4	4,000 (3,200)	9	9,000 (8,200)
5	5,000 (4,000)	10	10,000 (9,000)

Prestige Classes have their own XP costs, to reflect that they are often far more powerful than basic character classes of the same level.

When you buy a class level, you get the amount of extra skill points and Vitality points listed for the class. These skill points can be spent in the same manner as those spent during character creation. Every skill rank added to a skill also increases your total in that skill by one point. These Vitality points are NOT modified, only rolled and added directly into the character's maximum and current Vitality.

A character's Base Attack bonus, and base saving throws, are also recalculated to take into account a character's new level. His Base Attack bonus is equal to the Base Attack bonuses of each of his current class levels added together. His base saving throws are also equal to the same amount. If this results in a Base Attack or saving throw different than it used to be before gaining the class level, you will need to recalculate the character's total To-Hit and saving throw bonuses.

If the character chooses to, he can buy an ability score point when he gains a new level. If the ability score point was Intelligence, and it raised it far enough to affect his Intelligence modifier, then any extra skill points gained *for that level* can be spent on that class' skills. The character must be able to purchase the ability score point normally.

New feats gained by getting a new level, whether they be bonus feats or purchased, can be taken at anytime during the modification of the character to accommodate the new level. This is often used to gain access to new feats that the character only *just* qualified for.

Buying a Feat

Characters can buy one feat for every FULL three levels they have in a SINGLE class, plus an additional feat for every FULL three levels they have in Prestige Classes. These extra feats each cost 500 XP. The free feat for all first-level characters, racial bonus feats, and class bonus feats, do not count towards this total.

For Example: A character with 2 levels in Rogue and 1 in both Technician and vagabond cannot buy ANY extra feats, because he has no character class with at least three levels in it.

For Example: A character with 3 levels in Rogue can buy one additional feat.

For Example: A character with 5 levels in Rogue, 6 levels in Psionicist, 2 levels in Star Walker (PrC), and 4 levels in Veteran Warrior (PrC) can buy *FIVE* additional feats! (1 for Rogue, 2 for Psionicist, and 2 for total Prestige Class levels).

Buying an Ability Score

Characters can improve their ability scores, gaining Inherent Modifiers an *ability score* (**not** directly to the ability modifier), by spending XP. This reflects practice and training devoted to increasing the ability score in question.

The amount of XP this takes depends on how much the ability score has already been increased. A +1 Inherent bonus to an ability score costs 200 XP, from +1 to a +2 costs an additional 600 XP, from +2 to a +3 costs an additional 1,000 XP, from +3 to a +4 costs an additional 1,400 XP, and from +4 to +5 costs an additional 1,800 XP. No Inherent bonus can be higher than +5.

A character cannot have total Inherent bonuses higher than his Class Level. Increases to ability score modifiers that came about as a result of the ability score getting higher are totally retroactive. Extra skill points from high Intelligence can only be spent on racial skills.

PRESTIGE CLASSES

A prestige class (abbreviated as "PrC") is a specialization of a character's abilities towards producing greater abilities within that specialization. Prestige classes are often more powerful than base classes within their specialization, but weaker outside of that specialization. It is common for prestige classes to provide a character with specialized abilities they would not get from any combination of base classes, which is much of the reason to take a prestige class. Unlike base classes, a prestige class can only be taken after certain qualifications have been met. These are listed as "Requirements" within each prestige class description.

Generally speaking, a prestige class level should only as good overall as a base class level that would cost the same amount of Experience Points. Keep in mind that some PrC levels can cost more than any base class level, and therefore those levels should be stronger than any base class level.

No prestige class should give a Base Attack bonus, but general improvements to the To-Hit score are good. This is to prevent characters from having more than four iterative attacks by taking a combination of base and prestige classes that would bring their Base Attack bonus above +20.

Prestige classes can give bonuses to Damage Reduction, Energy Resistance, and Defensive Class as well. These bonuses should Always be restricted in one manner or another to reflect the PrC's specialization, either in total usage or by applicable situations. Damage Reduction and Energy Resistance bonuses should never be higher than the level of the PrC the character has. No PrC bonus should ever exceed half the PrC class level total for Defensive Class bonuses. Going beyond these limits can easily lead to unbalancing effects, with character that have the PrC levels being far more powerful overall than those with equal levels in base classes.

Getting A Prestige Class

A prestige class is identical to a regular class, except for two things. The first is that it's XP cost is often much higher, with each prestige class having it's own XP costs by level. The second is that you have to meet the requirements for a particular prestige class BEFORE you can take ANY levels in it! These requirements cannot must be met before gaining the level in that prestige class, so feats taken at the same level cannot be used to also take a new PrC at that level.

Prestige class levels cost an amount of Experience Points each depending on the fastest somebody could qualify for it. To find out how much, take the earliest Character Level somebody could have the first level of the prestige class by, and multiply it by 1,000 XP. That is how many experience points it takes to purchase the first level of the prestige class. Each subsequent level costs an amount equal to this, plus 1,000 XP. Preferred Class discounts do not apply to the XP cost of taking PrC levels.

Gunslinger

A master of firearm combat who has developed an intuitive knack for a type of firearm. When armed with his chosen firearm...he is a truly terrible foe!

Mostly only Warriors become Gunslingers, but Rogues are also prevalent.

Requirements

A character must fulfill all of the requirements below before they can take any levels in Gunslinger.

Base Attack: +2

Skills: Craft (same as Signature Gun) 4+ ranks, Spot 8+ ranks.

Feats: Point Blank Shot, Quick Draw, Rapid Shot, Simple Firearm Proficiency, Martial Firearm Proficiency.

TABLE 10-2: THE GUNSLINGER

Class Level	XP Cost	Fort Save	Ref Save	Will Save	Special
1	6,000	+0	+2	+0	Signature Gun
2	7,000	+0	+3	+0	Firearm Bonus +1
3	8,000	+1	+3	+1	Hip Shot
4	9,000	+1	+4	+1	Firearm Bonus +2
5	10,000	+1	+4	+1	Dead Aim

Vitality: 1d6

Skill Points Each Level: 4 + Int mod

Class Skills: Hide (Dex), Intimidate (Cha), Listen (Wis), Move Silently (Dex), Perform (gunplay) (Cha), Sleight of Hand (Dex), Spot (Wis), Street Smarts (Wis), and Tumble (Dex).

Class Abilities

The following abilities are gained by taking levels in Gun Slinger, as indicated on the table above.

Signature Gun (Cns-Ex): Pick a particular type of simple or martial firearm, with a set quality and options. Whenever you are firing that weapon you receive an additional +2 to hit, and treat all natural 1s you roll as natural 2s.

Firearm Bonus (Cns-Ex): This number is added as a competence bonus to all of the character's To-Hit rolls with firearms.

Hip Shot (Act-Ex): You can make an attack at the end of the surprise round if you were surprised, provided it is a ranged attack with your Signature Gun firearm. This is a free action that does not provoke an attack of opportunity.

Dead Aim (Cns-Ex): When using your Signature Gun firearm, you deal an extra point of damage for every three pints your attack roll exceeds the target's Defensive Class, in addition to your regular amount.

Laura Pelick

Hive Mind

Not all telepaths focus on manipulating the minds of others, some focus on aiding their allies by serving as a totally secure message system. As they practice doing this, they find themselves able to form better and stronger connections, harnessing mental powers that other telepaths rarely develop.

Psionicists make up the majority of Hive Minds, but there are also a few Scholars with more esoteric studies and abilities.

Requirements

A character must fulfill all of the requirements below before they can take any levels in Hive Mind.

Skills: Diplomacy 6+ ranks, Gather Information 6+ ranks, Sense motive 8+ ranks, Telepathy 8+ ranks.

Feats: Alertness, Scan Mind, Telepathy.

TABLE 10-3: THE HIVE MIND

Class Level	XP Cost	Fort Save	Ref Save	Will Save	Special
1	6,000	+0	+0	+1	Telepath Boost, Connection
2	7,000	+0	+0	+1	Telepathy Discount 2
3	8,000	+1	+1	+2	Group Network
4	9,000	+1	+1	+2	Telepathy Discount 4
5	10,000	+1	+1	+3	Eternal Link

Vitality: 1d6

Skill Points Each Level: 4 + Int mod

Class Skills: Bluff (Cha), Diplomacy (Cha), Gather Information (Cha), Intimidate (Cha), Knowledge (psionics) (Int), Profession (Wis), Sense Motive (Wis), and Telepathy (Cha).

Class Abilities

The following abilities are gained by taking levels in Hive Mind, as indicated on the table above.

Telepath Boost (Cns-Psi): Levels in Hive Mind count as Psionicist levels for purposes of Telepathy and Brain Ripper power activations.

Connection (Act-Psi): When you use Scan Mind on a being you can choose to forge a two-way connection between you instead of searching their thoughts. If the being's Will save is failed, or forgone, then the two of you have the ability to pass up to ten words, or one brief mental image, to each-other as a free action every round. This ability lasts for one minute per level of Hive Mind, and has an unlimited range! This is a free action to activate.

Fetching Discount (Cns-Psi): All your Fetching Vitality costs are reduced by this amount.

Group Network (Cns-Psi): Now when you use Connection, those you are linked to can also send thoughts to one-another by using your min as a message server. As a free action you can choose to "listen in" on any or all of the messages your brain is relaying.

Eternal Link (Act-Psi): You can spend 100 XP when you use the Connection ability on a being. If you do then your connection t their mind never *quite* fades away. After the normal duration of Connection is over, you can still retain the contact with them so long as they are within you normal Scan Mind range! This is a free action to activate.

Laura Pelick

Mover

While all those with the Psychokinesis feat can move objects and manipulate matter, a Mover is somebody who has focused greatly on being able to move larger amounts of mass. Just like exercising a physical muscle, his practice and dedication has made this application of mental force far stronger than normal.

Psionicists make up the majority of Movers, but there are also a few Scholars with more esoteric studies and abilities.

Requirements

A character must fulfill all of the requirements below before they can take any levels in Mover.

Skills: Balance 6+ ranks, Psychokinesis 8+ ranks, Spot 8+ ranks.

Feats: Mental Arm, Psychokinesis, Rapid Power.

TABLE 10-4: THE MOVER

Class Level	XP Cost	Fort Save	Ref Save	Will Save	Special
1	6,000	+0	+0	+1	PK Boost, Rapid Attack, Greater Arm
2	7,000	+0	+0	+1	Psychokinesis Discount 2
3	8,000	+1	+1	+2	Kinetic Deflection
4	9,000	+1	+1	+2	Psychokinesis Discount 4
5	10,000	+1	+1	+3	Macrokinetic

Vitality: 1d6

Skill Points Each Level: 4 + Int mod

Class Skills: Balance (Dex), Craft (Int), Intimidate (Cha), Knowledge (psionics) (Int), Profession (Wis), Psychokinesis (Int), Repair (Int), and Spot (Wis).

Class Abilities

The following abilities are gained by taking levels in Mover, as indicated on the table above.

PK Boost (Cns-Psi): Levels in Mover count as Psionicist levels for purposes of Psychokinesis and PK Shield power activations.

Rapid Attack (Act-Psi): You can use the Rapid Power feat on your Mental Fist power without any modifiers to your Vitality Costs or Check penalty. This is a free action to activate.

Greater Arm (Cns-Psi): You add your Mover level to your Intelligence score when using Mental hand and Mental Arm.

Psychokinesis Discount (Cns-Psi): All your Psychokinesis Vitality costs are reduced by this amount.

Kinetic Deflection (Act-Psi): Once per round you can attempt to use Mental Arm to deflect an incoming physical attack. You make your regular Psychokinesis check, at the regular Vitality Cost. If you succeed then you get to subtract your Intelligence modifier plus your Mover level from the attack roll! You must do this in response to the attack being declared, before the to-hit roll is made, and it does not count as your one free action psionic power for the round. You cannot use this ability if you are caught flat-footed or denied your Dexterity modifier to your Defensive Class by the attacker. This is a free action to activate.

Macrokinetic (Act-Psi): For every additional 1d6 you add to the cost of your Mental Arm you can add +100% to the amount of weight you can manipulate! You cannot add more dice to the cost than you have points of positive Intelligence modifier. This is a free action to activate.


Laura Pelick

Roboticist

A dog may be a man's best friend, but a Roboticist makes his *own* friends. This is somebody who has dedicated large amounts of time and energy to the esoteric science of robot construction, developing it into a personalized art form that he is uniquely placed to appreciate. As he practices his art, his robotic constructions start to push the boundaries of science further, becoming far better than they would be if made by somebody without his loving and intuitive care.

Almost all Roboticists are Technicians, although some are multi-class Scholars and Rogues.

Requirements

A character must fulfill all of the requirements below before they can take any levels in Roboticist.

Skills: Computer Use 4 + ranks, Craft (robotics) 8+ ranks, Disable Device 4+ ranks, Remote Operation 8+ ranks, Repair 4+ ranks, Robotics 8+ ranks.

Feats: Skill Focus (Robotics).

Special: Must have at least 40,000 credits worth of robots and a rating 5 robotics toolkit.

TABLE 10-5: THE ROBOTICIST

Class Level	XP Cost	Fort Save	Ref Save	Will Save	Special
1	6,000	+0	+1	+0	Robotic Savant
2	7,000	+0	+1	+0	Robomaster +2
3	8,000	+1	+2	+1	Robotic Genius
4	9,000	+1	+2	+1	Robomaster +4
5	10,000	+1	+3	+1	Robotic Wizardry

Vitality: 1d4

Skill Points Each Level: 6 + Int mod

Class Skills: Appraise (Int), Computer Use (Int), Craft (Int), Cryptography (Int), Demolitions (Int), Disable Device (Int), Knowledge (Int), Pilot (Dex), Profession (Wis), Remote Operation (Int), Repair (Int), and Robotics (Int).

Class Abilities

The following abilities are gained by taking levels in Roboticist, as indicated on the table above.

Robotic Savant (Cns-Ex): You subtract 10% x your Roboticist level from the costs of all the materials you need to build or repair robots.

Robomaster (Cns-Ex): This value is added as a competence bonus to all of the character's Craft (robots), Computer Use (when making robotic programs), Remote Operation, and Robotics skill tests.

Robotic Genius (Cns-Ex): Whenever you build a robot, you get to add up to 2 points worth of Options at no additional cost, and without using up any option points! This only applies to robots you build yourself, or those built from your designs by others. Whenever somebody without this ability tries to Craft a robot from such a design, the DC to do so is increased by +5 for every point of Options the design incorporates thanks to this ability. This cannot be combined with Robotic Wizardry on the same robotic option.

Robotic Wizardry (Cns-Ex): Whenever you build a robot, you get to add up to 5 points worth of Options at no additional cost, and without using up any option points! This only applies to robots you build yourself, or those built from your designs by others. Whenever somebody without this ability tries to Craft a robot from such a design, the DC to do so is increased by +5 for every point of Options the design incorporates thanks to this ability. This cannot be combined with Robotic Genius on the same robotic option.

Laura Pelick

Star Walker

Psionicists who can Hop are the means by which star ships travel faster than light, in a series of long-range Hops thru space. A Star Walker has dedicated himself to space travel with a passion, pushing himself as far as possible. As he practices, he finds himself to reach further than others, and even to seemingly break the psionic laws!

Psionicists make up the majority of Star Walkers, but there are also a few Scholars with more esoteric studies and abilities.

Requirements

A character must fulfill all of the requirements below before they can take any levels in Star Walker.

Skills: Astrogation 6+ ranks, Fetching 10+ ranks, Freefall 6+ ranks, Knowledge (space) 6+ ranks.

Feats: Born Spacer, Fetching, Hop.

TABLE 10-6: THE STAR WALKER

Class Level	XP Cost	Fort Save	Ref Save	Will Save	Special
1	8,000	+0	+0	+1	Fetching Boost, Star Leap
2	9,000	+0	+0	+1	Fetching Discount 2
3	10,000	+1	+1	+2	Landing
4	11,000	+1	+1	+2	Fetching Discount 4
5	12,000	+1	+1	+3	Orbital

Vitality: 1d6

Skill Points Each Level: 4 + Int mod

Class Skills: Astrogation (Int), Bluff (Cha), Fetching (Int), Freefall (Dex), Intimidate (Cha), Knowledge (psionics) (Int), Knowledge (space) (Int), Profession (Wis), and Sense Motive (Wis).

Class Abilities

The following abilities are gained by taking levels in Star Walker, as indicated on the table above.

Fetching Boost (Cns-Psi): Levels in Star Walker count as Psionicist levels for purposes of Fetching and Time Skip power activations.

Star Leap (Act-Psi): You add your Star Walker level to the amount of light years you travel with each use of Hop, provided you would travel at least one light year before you do so. This is a free action to activate.

Fetching Discount (Cns-Psi): All your Fetching Vitality costs are reduced by this amount.

Landing (Act-Psi): When you are within Hop range of a stellar body's surface, you can attempt to Hop onto it, even from space! This use of Hop has a Fetching penalty of -10 and costs 4d6 Vitality.

Orbital (Act-Psi): You can attempt to escape a planet's surface, using one gigantic Hop to achieve orbit! This use of Hop has a penalty of the planet's (G x 5) +10, so it is NOT easy. It also costs (G x 3) + 2d6 Vitality to even make the attempt! This is a free action to activate.

Laura Pelick

Veteran Warrior

Dead Stars is a violent place, full of dangers and terrors. It takes a special kind of person, tough and maybe a little insane, to pit himself against these conditions time and time again. Such a person, if they survive, can become a pure survivor and killer, a Veteran Warrior.

The majority of Veteran Warriors are multi-class Warriors and Vagabonds, but some are Rogues.

Requirements

A character must fulfill all of the requirements below before they can take any levels in Veteran Warrior.

Base Attack: +3

Skills: Spot 4+ ranks, Survival 4+ ranks.

Feats: Toughness, all Simple Weapon Proficiency, all Martial Weapon Proficiency.

Special: Can replace the Toughness requirement with level 4 in Vagabond.

TABLE 10-7: THE VETERAN WARRIOR

Class Level	XP Cost	Fort Save	Ref Save	Will Save	Special
1	4,000	+1	+1	+0	Dodge Bonus 1
2	5,000	+1	+1	+0	Combat Veteran 1
3	6,000	+2	+2	+1	Dodge Bonus 2
4	7,000	+2	+2	+1	Combat Veteran 2
5	8,000	+3	+3	+1	Dodge Bonus 3

Vitality: 1d10

Skill Points Each Level: 2 + Int mod

Class Skills: Demolitions (Int), Freefall (Dex), Heal (Wis), Intimidate (Cha), Jump (Str), Perform (Cha), Pilot (Dex), Profession (Wis), Spot (Wis), Street Smarts (Wis), Survival (Wis).

Class Abilities

The following abilities are gained by taking levels in Veteran Warrior, as indicated on the table above.

Dodge Bonus (Cns-Ex): You add this value as a dodge bonus to your Defensive Class. You lose this bonus whenever you are caught flat-footed, surprised, or otherwise denied your Dexterity bonus to Defensive Class.

Combat Veteran (Cns-Ex): You add this bonus to all of your to-hit rolls, but only with weapons you are proficient in, and not on attacks of opportunity.

ELEVEN: PSIONICS

THEORY

It is believed that psionic abilities are the application of the user's sentient intentions onto the quantum world. Of course there are other theories, but they all fail to answer many of the fundamental questions that the reality of psionics brings up.

Why are only sentient beings capable of using these abilities? Why only living beings? Where does the energy come from? Why are distances limited by gravity? Why does it take concentration? Why are types of applications limited? According to the mainstream theory the answers are there, if confusing.

It takes an active concept of what is true, *and the ability to imagine what you want*, to cause the shift in reality to the new state you desire. The ability to imagine, to "daydream" is the defining mark of being self-aware.

The problem comes in developing a psionic nexus, the mental circuitry, for psychic ability can only be laid down early in a species' evolution. It is the interaction of the sentient mind with this primitive, and now totally useless, complex of mental pathways that allows a being to "tune in to" the quantum world, so that their desired observations of it become the reality they sought. Artificial intelligences and the Orliss never had this stage of development, and neither have several other beings, making it so that their minds cannot develop the nexus of pathways necessary to create psionic effects.

While psionic effects have the appearance of creating energy, in actuality they do not. They are merely altering energy from one orientation to another. The only reason this is exhausting to the user is because of the strain necessary to "tune in to" the quantum world. For instance, a telekinetic does not "lift" an object, he merely convinces it that it should be in a different location, and zero-point energy is then used to transit it to that location.

As for gravity's influence on psionic ranges, that is not quite the truth. Gravity is the distortion of space and time by the condensation of matter. Psionic effects are "powered" by zero-point energy. According to the physics of the era, zero-point energy is a nearly infinite all-pervasive energy source that exists only at the quantum level. The only way known to tap into it is through psionic methods. The distortion of space and time makes it harder to tap into the zero-point effect, so the maximum "distance" of a psionic effect is reduced due to the lower amount of zero-point energy that can be harnessed.

Imagination, and the effort of imprinting your imagination on reality, takes the focused application of will and desire. Nobody can just spontaneously develop a fully-orchestrated symphony, and nobody can perform the similar mental exercise that psionics requires. It is not unreasonable, however, for a person to practice at the speed with which they can imagine an alteration so that they eventually can exert themselves so that their activation of a power is ALMOST instantaneous!

Why the application of psionics is limited is a little easier to grasp. Instead of having to deal with quantum physics and zero-point energy, it is all about structure. Specifically, the structure of the psionic being's brain. Each of the types of psionic nexus exists simply because an aberrant gene caused a set of synapses to go one way instead of another. If they go "left", then the person is wired for Fetching, "right" makes them wired for Psychokinesis, and so on. Once these new pathways are opened, a person can train themselves to use their psionic power in new ways, but only within the scope of what they are wired for.

Some few people have an ESPECIALLY mixed-up gene, which causes them to develop multiple connections! This does not make them any more powerful than somebody with only one type of power, and often their range of abilities within an application is lesser. That is primarily due to the fact that they still have to spend the time and effort to develop both them that another being can devote to one.

SOURCE

Where the capacity for psionics comes from has already been touched upon when we discussed the theory of why they exist. it still bears repeating, and even explaining, however.

Psionic ability comes to a being thanks to the development of a mutant gene in a sentient brain. Pure and simple. The mutant gene taps centers of the brain that have not been used since the being's race developed sentience. By themselves, these centers only serve to maintain a non-sentient creature's existence, providing them with the instinctual drives and responses they need to survive. Even non-psionic members of a sentient species still use this portion of their brains, just not in the same way or o the extent that a psionic being can.

When a psionic being imagines a change in the world around him, one they are tuned into, like a radio station, due to the structural change in their mind, they can push along these pathways to tap into the building blocks of reality in order to CHANGE what is real into what they imagine. This is mentally taxing for them, some have even been known to give themselves strokes and embolisms by the overexertion of their minds. A few have even killed themselves in this manner.

The mutant gene is, in genetic terms, double-recessive. While it often pops up randomly throughout any given population, the ability to pass it on to progeny is VERY limited! In essence, the child of two psionic parents, even those with the same psionic powers, has only a 1 in 4 chance of having ANY psionic powers himself! Even if he does develop them, they are as likely as not to be of a different type than his parents because he has a slightly different brain structure than they do.

Of course, there are exceptions.

The race known as Drakes developed a culture in which the exhibition of psionic abilities was tantamount to a form of prayer. Over the successive hundreds of generations, the psionic members of their population were selectively breeding because they were "holy", and thusly more attractive to mates. Now, due to a genetic fluke, the

psionic gene has become a regular recessive gene for them. This means that so long as both parents have the gene, there is a 100% chance their progeny will as well. Of course, all Drakes already have this gene, so all Drakes are psionic in one way or another.

The Orliss, a race of plant-like masters of genetic engineering, because self-aware when their ancient predecessor accidentally gave himself a genetic alteration that sparked consciousness. Over their generations, they altered themselves so that they became totally self-aware. Unfortunately this caused them to skip the evolutionary stage in which the basis for psionic ability in alter stages was developed. Now that they know such powers exist, they are trying to reverse-engineer them into their own genetic code. So far this has met with nothing but failure, mainly because their code is so radically different from the naturally evolved species of the rest of the galaxy, that they don't even know where to START!

Of course, just because the Orliss can't make themselves psionic through genetic engineering doesn't mean that beings of other species cannot take advantage of this science to become psionic. After all, the genetic code for psionics already exists in their species, all that is required is the knowledge of what alterations need to be made. If life functions can be supported, and brain cells generated spontaneously, then even a grown member of the species can be given psionic abilities through genetic alterations. This comes with some risk, however. The genetic code, especially in a creature once it has left incubation, is a very cross-indexed thing. A simple alteration, like the one required for psionics, can have radical changes in a creature that did not evolve that portion of code naturally.

for those without access to the facilities or know-how to develop psionic abilities through genetic engineering, or those who do not like the risks, there is another option: theft. A psionic member of the same species can be anesthetized, and the psionic complex of their brain removed for implantation into another being of the same species. This requires the removal or destruction of most of the donor's brain, specifically the components necessary for the maintenance of basic life functions like breathing. The end result is that one person leaves the operation with the psionic powers available to the other, at the cost of the other's life. This too has side-effects, sometimes severe ones. The psionic complex is not only the seat of instinct and autonomic function, it is also where most of a person's "habitual behaviors" come from. The recipient of the psionic complex finds himself developing a few, or allot, of the donor's habits and deep-seated emotions. In a few cases, their personality can be completely subsumed by that of the donor, with only their original memories remaining!

Some drugs and devices can even enhance psionic abilities, mainly by enhancing the centers of the brain that these abilities are rooted in. While those without psionics can benefit from such options, those with psionic abilities can apply the increased brain power directly to their psionic powers!

MECHANICS

Each of the three types of psionics has a corresponding skill associated with it. This skill can only be taken by those with the feat of the same name. For Psionicists (and some Scholars) these are class skills. All other classes treat them as cross-class skills, but *only* if the character has the feat! Psionic skills other than Fetching, Psychokinesis, and Telepathy are class skills only for Psionicists, and cross-class for other classes. Even then, the character needs to possess the feat of the same name.

The default DC for any psionic effect is 10.

Each of the three basic psionic feats is associated with an ability score: Fetching is Wisdom, Psychokinesis is Intelligence, and Telepathy is Charisma. These ability scores are not only the linked score for the skill, but they also determine the effects that the character can use that effect for. This is determined by the character's ability score modifier, as indicated on the table below.

Using one of these effects is a standard action that provokes an attack of opportunity, and costs Vitality. The character can choose to take a –5 penalty to his skill check in order to avoid provoking an attack of opportunity.

Each of the three types of psionic abilities also has related specialty use feats. These feats allow the psionicist to make a particular type of refined action, focusing their Psionicist ability in new ways. To do so, the feat requires they take a penalty to their check to successfully activate their psionic power when using the feat. A character cannot take the feat unless he has a skill total high enough to still have a positive modifier after applying the penalty.

Using a psionic ability costs an amount of Vitality, as detailed by the ability given. Characters who are experienced with the strain psychic abilities can cause are more able to shrug this off. Characters get to subtract their Psionicist level from the Vitality Cost of whatever psionic abilities they use. This cannot result in a net gain of Vitality.

TABLE 11-1: MASTER PSIONIC FEAT TREE

Communion [Psionic] Fetching, Psychokinesis, or Telepathy
Empathy [Creation, Psionic] Charisma 13+ or Telepathy
Extra Strength [Psionic] Constitution 11+, Psionicist 1+
Fetching [Creation] Wisdom 11+
- Phase Dodge [Psionic] Fetching 4+ ranks
  - Phase [Psionic] Fetching 8+ ranks
- Hop [Psionic] Fetching 6+ ranks
  - Hop Other [Psionic] Fetching 10+ ranks

Impact [Creation, Psionic] Intelligence 13+ or Psychokinesis
Psychokinesis [Creation] Intelligence 11+
- Warp Item [Psionic] Psychokinesis 4+ ranks
- Mental Arm [Psionic] Psychokinesis 6+ ranks
  - Disintegrate [Psionic] Warp Item, Psychokinesis 10+ ranks
- Mental Lance [Psionic] Psychokinesis 8+ ranks

Telepathy [Creation] Charisma 11+
- Scan Mind [Psionic] Telepathy 4+ ranks
  - Probe [Psionic] Telepathy 8+ ranks
- Compel [Psionic] Telepathy 6+ ranks
  - Edit Mind [Psionic] Telepathy 10+ ranks

Natural Flow [Psionic] Psionicist level 1+, Psionic skill 4+ ranks
Overexertion [Psionic] Psionicist level 1+, Psionic skill 4+ ranks
Rapid Power [Psionic] Psionicist level 5+
Rapidity [Creation, Psionic] Wisdom 13+ or Fetching

FETCHING (WISDOM)

Jump Object (1d6 Vitality Cost): You can send any object in your hands to any location within Ability score x 5 ft range (+ 5 ft/2 Psionicist levels) that you can either see or image in your mind (either from memory or by seeing a highly-detailed 3D image). The object cannot weigh more than Wisdom modifier + Psionicist level in lbs, and the destination must have enough space to contain the object. If either condition is not met, then the effects fails automatically.

Snatch Object (1d6 Vitality Cost): You can bring any object of up to ability score + Psionicist level lbs. to your hand. The object must be within Ability score x 5 ft range (+ 5 ft/2 Psionicist levels) and either in sight or that you can image in your mind (either from memory or by seeing a highly-detailed 3D image). If it being used or worn by a being with it's own free will then that creature gets a Will save to negate this effect. It's DC is equal to your Fetching check result. If he also has Fetching he can choose to use a Fetching skill check instead of his Will save.

Fetching Feats

Phase Dodge (2d6 Vitality Cost, -4 Skill) [Psionic]

Prerequisites: Fetching 4+ ranks.

Benefit: Instead of being a standard action, you can use this ability as a free action. You attempt to evade an attack by briefly stepping outside of time and space for the split instant that the attack would have harmed you. You must decide weather or not to use this ability when before the attack roll (or your saving throw) is made. If you make the skill check, then you have managed to evade the attack and take no harm from it. This ability is purely reactionary and can be used to evade all forms of physical or energy (but not psionic) damage that are not from a constant source. You can use this ability multiple times in a round (if you can survive the Vitality loss!), but cannot use it on your action.

Hop (3d6 Vitality Cost, -6 Skill) [Psionic]

Prerequisites: Fetching 6+ ranks.

Benefit: You can travel to any location you can either see directly, or that you can image in your mind (either from memory or by seeing a highly-detailed 3D image), so long as it is within Ability score x 5 ft range (+ 5 ft/2 Psionicist levels). You cover the trip without crossing the intervening distance. You can take up to your Light encumbrance limit with you. If you are secured to something beyond this limit, in a Grapple attack with something beyond this limit, or the destination does not have enough space for you, then the attempt automatically fails. You can further penalize this check to increase your traveled distance, every extra -4 to the Fetching skill check doubles your traveled distance (i.e. x2, x3, x4, ect).

Phase (4d6 Vitality Cost, -8 Skill) [Psionic]

Prerequisites: Fetching 8+ ranks, Phase Dodge.

Benefit: You can temporarily displace yourself from the normal boundaries of space and time, becoming as insubstantial and ephemeral as a thought. While in this state you are immune to all forms of attack or damage, but cannot interact with the physical world in any way. You look like a semi-translucent image of your normal self to those in the physical world, and the physical world seems strangely fuzzy to you. You can pass though any object and do not require breath or sustenance of any kind in this state. Gravity and momentum still affect you, but only when you want them to. You can effectively fly at a Speed equal to five times your Wisdom, and with Perfect maneuverability. You can only use this ability if you are not carrying, or in a grapple with, your Light encumbrance limit, and not secured to anything beyond this weight limit. This effect lasts for up to your Wisdom (plus one round for every point you exceed the DC by) in rounds, or until you dismiss it, whichever comes first. If you rematerialize inside a solid object you must make a Fortitude DC 20 save to be shoved to the nearest spot that can contain you. You take 1d6 Vitality damage for every 5 ft you had to travel due to this. A failed save turns you into atomic guacamole, make a new character.

Hop Other (5d6 Vitality Cost, -10 Skill) [Psionic]

Prerequisites: Fetching 10+ ranks, Hop

Benefit: This is the similar to Hop, but you move any being or object in range that you can see or feel to the desired location, instead of yourself. You can move up to Wisdom score x Psionicist level x 10 lbs in this manner. A being with its own will gets a Will save, DC equal to your check result, to resist this effect. If he also has Fetching he can choose to use his Fetching skill instead of a Will save.

Secondary Feat

Rapidity [Creation, Psionic]

Prerequisites: Wisdom 13+ or Fetching.

Benefit: You get to add +10 ft to all of your Speeds.

Special: This feat is only available after character creation if the character taking it has the Fetching feat.

PSYCHOKINESIS (INTELLIGENCE)

Mental Hand (1d6 Vitality Cost): You can move and manipulate small objects, as if by a single hand, that are within your line-of-sight. This effect works on any object of up to your Intelligence score in lbs, out to Intelligence x 5 ft (+ 5 ft/2 Psionicist levels). You can move an object at a Speed of 5 ft, plus 5 ft per lb of extra weight limit you have. For purposes of the force you exert with the object, you are considered to have a Strength score equal to your Intelligence + (1/2 Psionicist level). This effect lasts for up to your Intelligence in rounds (plus one round for every point you exceed the check DC by). Moving the object is considered to be a move-equivalent action for you.

Mental Fist (1d6 Vitality Cost): You can exert your mental force in a focused, directed fashion. This effect works out to Intelligence x 5 ft (+ 5 ft/2 Psionicist levels) and is an instantaneous line-of-sight ability. You can either do damage, attempt a Disarm maneuver, or attempt a Trip maneuver with this force. If used for damage it deals 1d4 points of Vitality damage per point of your Intelligence modifier (plus one point for every point you exceed the DC by). If used to Disarm or Trip, treat it as a weapon of small size, with a Strength equal to your Intelligence + (1/2 Psionicist level). In all three cases, your check result is considered to be your attack roll.

Psychokinesis Feats

Warp Item (2d6 Vitality Cost, -4 Skill) [Psionic]

Prerequisites: Psychokinesis 4+ ranks.

Benefit: You can shatter the bonds within a nonliving object, causing to bend or break. This is an instantaneous line-of-sight effect that only works on a single item within Intelligence x 5 ft (+ 5 ft/2 Psionicist levels). It deals Hit Point damage equal to 1d6 per point of your Intelligence modifier, plus the amount by which you exceeded the DC. Hardness of the object *does* apply.

Mental Arm (3d6 Vitality Cost, -6 Skill) [Psionic]

Prerequisites: Psychokinesis 6+ ranks.

Benefit: You can move and manipulate sizable objects, as if by a strong arm, that are within your line-of-sight. This effect works on any object of up to (Intelligence score + 1/2 Psionicist level) x 25 lbs, out to Intelligence x 5 ft (+ 5 ft/2 Psionicist levels). You can move an object at a Speed of 10 ft, plus 10 ft per 25 lb of extra weight. For purposes of the force you exert with the object, you are considered to have a Strength score equal to your Psionicist level + (Intelligence Modifier x 2). This effect lasts for up to your Intelligence in rounds (plus one round for every point you exceed the DC by). Moving the object is considered to be a move-equivalent action for you. You can lift creatures (yourself included) with this ability, but unwilling sentient beings get a Will save (DC equal to your check result) to ignore this effect. If the affected object is less than one pound in weight then it can be thrust like a bullet, doing 1d6 + Int mod in Hit Point damage (this ends the effect).

Mental Lance (4d6 Vitality Cost, -8 Skill) [Psionic]

Prerequisites: Psychokinesis 8+ ranks.

Benefit: You can exert you mental force in the same manner as for Mental Fist, but to considerably greater effect. If used for damage it deals 1d8 Hit Point points damage per point of your Intelligence modifier (plus one point for every point you exceed the DC by). You can also attempt to Bull Rush with this ability, in addition to Disarm or Trip. Your size category for these maneuvers is considered to be Medium, and your Strength is equal to (Intelligence x2) + Psionicist Level. In all cases, your check result is considered to be your attack roll.

Disintegrate (5d6 Vitality Cost, -10 Skill) [Psionic]

Prerequisites: Psychokinesis 10+ ranks, Mental Arm, Warp Item.

Benefit: Your mental energies are capable of tearing apart the molecular bonds in any object or creature, reducing them to powder and liquid vapor. This effect works on any single object or creature of any size, as long as it is in line-of-sight and within Intelligence x 10 ft (+ 10 ft/2 Psionicist levels). This ability causes 1d12 Hit Point damage per point of Intelligence you have (plus one point for every point you exceed the DC by). It ignores Hardness and Damage Reduction. Creatures get a Fortitude save to resist it's effects, with their DC being equal to your Check result.

Secondary Feat

Impact [Creation, Psionic]

Prerequisites: Intelligence 13+ or Psychokinesis.

Benefit: When you hit in melee you can expend a point of Vitality to add +1d6 points of damage to your attack. This is a free action, but it can only be done once for each attack made.

Special: This feat is only available after character creation if the character taking it has the Psychokinesis feat.

TELEPATHY (CHARISMA)

Hear Thoughts (1d6 Vitality Cost): You can pick up on the stream of thoughts of any single living creature in line-of-sight and within your Charisma x 5 ft (+ 5 ft/2 Psionicist levels). The creature gets a Will save, DC of your check result, to resist this effect. If he also has Telepathy, he can choose to replace his save with a skill check, after he makes the saving throw. If this effect is successful, then you can read what he is thinking for the your Charisma in rounds (plus one round for every point they fail the Will save by), gaining a +2 insight modifier to your Bluff, Diplomacy, Gather Information, Innuendo, Intimidate, and Sense Motive checks. You also gain a +1 insight bonus to your attacks and Defense Class against that subject. Lastly, the subject can actively "project" thoughts to you, so that you can hear him as if he where speaking normally.

Send Thoughts (1d6 Vitality Cost): You can project your thoughts into the mind of any living creature in line-of-sight and within your Charisma x 5 ft (+ 5 ft/2 Psionicist levels). The creature can hear any thought you wish to send him for one round per point of your Charisma (+1/2 Psionicist level). This effect allows you to send thoughts much faster than normal speech, a sentence is a free action, two or three a move-equivalent action, and up to five a full-action. Alternately you can *shout* into a being's mind, causing them 1d6 + Cha mod in Vitality damage, but using this form of the ability causes it to be instantaneous in duration.

Telepathy Feats

Scan Mind (2d6 Vitality Cost, -4 Skill) [Psionic]

Prerequisites: Telepathy 4+ ranks.

Benefit: This is identical to Hear Thoughts, with the following exceptions. Range doubled. Duration is in minutes instead of rounds. Insight skill bonuses are +4, combat bonuses are +2. You can hear *all* of the subject's thoughts, even if he doesn't want you too. And a good image (such as a 3D projection) can be used in place of direct line-of-sight.

Compel (3d6 Vitality Cost, -6 Skill) [Psionic]

Prerequisites: Telepathy 6+ ranks.

Benefit: You can issue an order into the mind of a living creature within your thought projection range. He receives a Will save, DC of your check result, to resist. If he also has Telepathy he can choose to make a Telepathy skill check instead of a Will save. If this ability succeeds then the subject must obey your order to the best of his ability. The order can be no more than three words in length, and it will not be obeyed for longer than one round per point of Charisma you have (+ 1/2 Psionicist level). Even obviously self-destructive orders can be give, but the DC for the save to resist them equals *half* your check result.

Probe Mind (4d6 Vitality Cost, -8 Skill) [Psionic]

Prerequisites: Scan Mind, Telepathy 8+ ranks.

Benefit: You can dig around in a person's brain for nuggets of information, memories, and secrets best left hidden. The subject must be within your Charisma x 5 ft (+ 5 ft/2 Psionicist levels) and line-of-sight. He receives a Will save, DC of your check result, to resist. If he also has Telepathy he can choose to make a Telepathy skill check instead of a Will save. You can choose to receive the answer to a single question every round, for up to your Charisma in rounds (+ 1/2 Psionicist level), but the answers are only up to one sentence long. Alternately you can spend a minute to relive up to your Charisma modifier in hours of the subject's past experiences. You can use this ability to recover memories buried with brainwashing techniques or the Edit Mind feat, as your skill check exceeded that of the buried memory or order. You must make another Telepathy skill check after recovering a memory or erasing the order, or the subject's mind takes 1d4 points of permanent Intelligence damage.

Edit Mind (5d6 Vitality Cost, -10 Skill) [Psionic]

Prerequisites: Telepathy 10+ ranks, Compel.

Benefit: This feat allows you to alter memories. It takes only a minute to erase a day's memories, but an hour to create new ones.

Alternately you can use this as a more powerful version of the Compel feat. It takes a minute to implant an order with this ability, but the order can be as complex and long lasting as you wish. You can even program orders that will cause the alteration of your other implanted orders or memories altered with previous uses of this feat. In essence you get to create one block of a mental programming schematic for every use of this ability

Secondary Feat

Empathy [Creation, Psionic]

Prerequisites: Charisma 13+ or Telepathy.

Benefit: You can soothe pain by touch, or influence one person within Close range (25 ft + 5 ft/2 Psionicist levels) to act with fewer inhibitions and prejudices. Your pain soothing lasts for one hour and eliminates all pain penalties during that time, including those from being injured, except for *unconsciousness.* Your voice can be used to adjust the NPC Reaction of anybody who can understand the language you speak if they fail a Will save against a DC of 10 + Charisma mod + 1/2 Psionicist level), but their reaction can only be adjusted one step. Both of these are mind-affecting compulsion abilities, take a standard action, and cost 1d6 Vitality to use.

Special: This feat is only available after character creation if the character taking it has the Telepathy feat.

GENERIC PSIONIC FEATS

Communion [Psionic]
You can join your mind in an hour-long ritual with the mind of another who shares at least one of your base psionic feats, each of you learning from the other's experiences.

Prerequisites: Fetching, Psychokinesis, or Telepathy

Benefit: After spending an hour meditating in privacy with one other psionic being that also has this feat, you each get an insight bonus to your effective Psionicist levels equal to the other's actual Psionicist level, including prestige class bonuses. This bonus goes away at a rate of 1 point per day, until it has been overwhelmed by and subsumed into your own experiences. The bonus *only* applies to the use of whatever psionic skills you both have at least one rank in!

This experience can be overwhelming to a person if their facility with psionics is less than the other participant's. For each psionicist level one of the participants has higher than the other, the one with the lower level loses 1d6 points of Vitality. This cannot cause any Hit Point loss, only unconsciousness.

Example: Overman Sens is the pilot of the *Manticore*, and has five levels of Psionicist as well as three of Starwalker (total 8 Fetching Psionicist levels). He gets the chance to commune with the head Fetch of a deep-space Flakam colony who has ten levels in Psionicist, four in Starwalker, and five in Flakam Navigator (19 Fetching Psionicist levels). The experience overwhelms Sens' mind, causing him to lose 9d6 Vitality and knocking him out. After he wakes up, he enjoys the rush of power from his shared experience with the Flakam, gaining an extra 19 levels whenever he uses his Fetching skill. This bonus winds down eventually, but in the meantime Overman Sens feels like he can Fetch *anything.*

Extra Strength [Psionic]
You have trained yourself to possess larger reserves of psionic energy.

Prerequisite: Constitution 11+, Psionicist level 1+.

Benefit: In addition to the daily psionics-only Vitality your Psionicist levels give you, you possess an extra amount of psionics-only vitality equal to your Constitution score. This is added into the amount from your Psionicist class levels, and refreshes when it does.

Natural Flow [Psionic]
Through practice or natural ability, you are able to use a particular type of psionic ability without as much strain.

Prerequisite: Psionicist level 1+, 4+ ranks in the chosen psionic skill.

Benefit: Choose one psionic skill. All psionic abilities that use that skill have their Vitality costs reduced by one die, as well as by your ability score modifier for it's that skill.

Overexertion [Psionic]
You can push your mind beyond the limits of what it should normally be able to perform, expending greater effort in an attempt to gain greater effect from your psionic powers.

Prerequisite: Psionicist level 1+, 4+ ranks in the chosen psionic skill.

Benefit: When you activate a psionic power, before rolling to see if it is successful or how much Vitality it costs you, you can spend Vitality in order to gain a bonus to your skill roll and effective ability score for that activation. Every point of Vitality you spend in this way provides a +1 bonus to your psionic skill check, and increases you ability score for the power's characteristics by +1. You cannot spend more Vitality in this way than you have levels in Psionicist. You cannot spend psionic Vitality in this way, only normal Vitality.

Rapid Power (+1d6 Vitality, -10 Skill) [Psionic]
You can slap together a psionic power quickly but doing so increases the amount of energy it takes to do so, and isn't as reliable as activating it normally.

Prerequisite: Psionicist level 5+.

Benefit: You can activate one psionic power a turn as a free action. This activation is too quick to provoke an attack of opportunity. Activating a power in this way increases it's Vitality cost by 1d6, and imposes an additional -10 penalty to the skill check. You cannot use this ability if it would reduce our total psionic skill bonus to 0 or less.

ADVANCED PSIONICS

Some psionic feats are "Advanced", meaning that they represent the development of powers both more complex than normal, and based on normal powers. Fetching, Psychokinesis, and Telepathy all have advanced psionics powers. Each of them is detailed fully in Chapter 3: Feats.

An advanced psionic feat also requires skill to perform accurately and reliably. The most ranks a character can have in the feat's skill is equal to the amount he possesses in the feat's prerequisite feat.

Fetching's advanced feat is Time Skip. It allows the user to speed up or slow down their personal time in relation to the rest of the universe.

Psychokinesis' advanced feat is called PK Shield. It allows the user to form a protective barrier of mental energy that serves as ablative armor.

Telepathy's advanced feat is called Brain Ripper. It allows a telepath to cause severe trauma directly to another creature's central nervous system.

PSIONIC GEAR LEVEL

Face it, the more psionics somebody has the less they need to rely on weapons and armor in a fight. To represent this, the possession of psionic abilities has it's own Gear Level. This is equal 1 for having any of the Creation feats that provides psionic powers, plus two for every Psionic category feat the character has after that!

MODIFIERS

Modifiers are values that are added or subtracted from a score or roll. They come in many types, and sometimes each type has it's own rules. This section goes over the types of modifiers, their rules, and the general rules for applying modifiers.

Types

Alchemical (Supernatural): This modifier is derived from the application of supernatural laws governing substances, instead of regular laws of physics and chemistry. It typically applies to saving throws, attack rolls, or ability score and skill checks.

Blessed (Supernatural): This modifier is gained as a physical representation of a thing's goodness, whether it is from it's self or something else. It is counteracted by Corrupt modifiers, with the total modifier being equal to the difference between the two. It can be applied to almost anything.

Circumstance: This modifier comes from the situation the check is being performed in, good or bad. It can be applied to any type of roll.

Competence: This modifier comes from a being's extreme aptitude with the roll involved. It can be applied to attacks, skill checks, and damage rolls.

Corrupt (Supernatural): This modifier is gained as a physical representation of a thing's evil, whether it is from it's self or something else. It is counteracted by Blessed modifiers, with the total modifier being equal to the difference between the two. It can be applied to almost anything.

Deflection: This modifier comes from some external force pushing harm away from the thing with the modifier. It typically only applies to Defensive Class and Reflex saves.

Dodge: This modifier is gained from the being having twitchy nerves. It is lost at any time the being's Dexterity modifier is lost, but is not limited by their Dexterity modifier. It is also the only named modifier that stacks with other modifiers of the same name! It typically only applies to Defensive Class and Reflex saves.

Divine (Supernatural): This modifier is gained as a physical representation of the influence of a very powerful supernatural entity, such as a god or primal force. It can be applied to almost anything.

Enhancement: This modifier represents the increase to a statistic that comes from using better materials, or direct augmentation by some other source. It can apply to almost anything.

Inherent: This modifier comes from the natural improvement of a particular ability or facet, typically denoting growth through use. It usually only applies to ability scores.

Insight: This modifier applies to bizarre logic and oddball rules of thumb...that somehow work! Any time a being seems to have an intuitive grasp of a particular check, it is often because of an Insight bonus. Insight bonuses can be applied to any skill check.

Luck: This modifier comes into play whenever somebody seems to have their odds of success in a given endeavor skewed. it represents great good, or bad, fortune in one or more types of situations. This modifier can apply to any roll.

Morale: This modifier comes from a being's force of determination, it's lack or it's overabundance. Often, determination is what determines the outcome of many endeavors. This bonus can apply to any roll except Fortitude and Reflex saves.

Pain: This modifier comes from the application or experience of extreme discomfort, of a sharp and immediate nature that a Circumstance modifier does not govern. It can be applied to any ability score, skill, or attack roll.

Racial: This modifier comes from a particular species' inherent aptitude or incompetence at a certain task. It can be applied to any skill check.

Resistance: This modifier applies to defensive abilities, providing a help in the defending from something. It is typically applied to only saving throws.

Size: This modifier comes from something's extreme size, large or small. It typically applies to Defensive Class, attack rolls, Hide, Listen, Move Silently, Search, and Spot checks.

Stacking

Each of the modifier types listed stacks with the other modifier types, so long as they are all of different names. This means that positive (and negative) values are added together for individual rolls or scores, so long as each such value has a separate name. For this purpose, negative values of a type of modifier are actually called (modifier) *penalties,* and positive values are called (modifier) *bonuses.* Bonuses are added to the roll or value, while penalties are subtracted. They are also labeled with a "+" before the amount to indicate a bonus, or a "-" to indicate a penalty.

A modifier of one type that is a bonus, and another of the same type that is a penalty, are technically two different named modifiers. Due to this, the same modifier type can apply to something more than once, so long as one of the two is a penalty while the other is a bonus. The total value of such a pair of modifiers is equal to the penalty subtracted from the bonus. If the result is negative, then the overall modifier is a penalty, otherwise it is a bonus.

If a value receives a modifier of a particular type, and then a roll that uses that value receives the same type of modifier, the *effects* of the two modifiers stack.

Example: A character receives a +4 Enhancement bonus to his Strength score, resulting in his Strength modifier being two points higher. He makes an attack with a weapon that has a +2 Enhancement bonus to damage. The results of these two modifiers is that he gains a +4 bonus to his damage roll!

Some modifiers act a little differently. "Generic" modifiers, those without a name, always stack. Even with other generic modifiers. Dodge modifiers stack with other

Dodge modifiers. Blessed and Corrupt modifiers of the same type (bonus or penalty) cancel each-other out, with only the difference between the two values being applied!

Multipliers

Instead of applying each multiple separately, in Dead Stars you instead add them together before multiplying. This is handled by taking the highest multiple, then adding an amount to it equal to the value of all other multiples that must be applied, *subtracting* 1 for the base amount from each multiple.

Example: If a weapon deals x3 damage due to one effect, and x4 due to another, the total multiple is instead x6. This is equal to the highest multiple (x4), plus the other multiple with 1 subtracted (x3 -1).

ABILITY TRAIT TYPES

Ability traits are used to define common rules and conditions for creature, class, and item abilities. A trait is described in two parts, it's activating factor and it's overall type. Activating factors are either "Activated" (Act) or "Constant" (Cns). Overall type is either "Extraordinary (Ex), "Psionic" (Psi), or "Supernatural" (Su). By putting these two parts together with a hyphen, you get the total trait description.

Example: A psionic feat, such as Psychokinesis, is described as "Activated Psionic". Thus it would be listed as "Psychokinesis (Act-Psi)".

Activated (Act)

This type of trait requires conscious volition to use. It is added to another type of trait except "Constant", as a descriptor. Typically they are Standard actions to use, but they can be also be Move Equivalent or even Free actions if it is described as such. Examples include the Dodge feat, psionic powers, and Orliss Sap. Use of an activated ability does not normally provoke an attack of opportunity unless it states otherwise.

Constant (Cns)

This type of trait is always at work, whether the user of it is conscious of it or not. It is added to another type of trait except "Activated", as a descriptor. Usually they cannot be deactivated, but some allow them to be suppressed as a conscious action of some sort. Even is suppressed, as soon as the user loses consciousness they snap back into action. Examples include the Toughness feat, racial damage reduction, and racial skill modifiers.

Extraordinary (Ex)

This type of trait is a function of regular biology, materials, or some other totally mundane agency. It is not paranormal or mystical in any way, but may seem so. Examples include the Hardness of objects, natural low-light vision, and winged flight.

Psionic (Psi)

This type of trait is the result of aberrant and powerful mental abilities. While paranormal, it is explained by the application of mental architecture that creates a beyond-mundane effect without benefit of mystical forces such as magic. Examples include fetching, psychoportation, and telepathy.

Supernatural (Su)

This type of trait harnesses the magical world, and mystical energies, to produce a paranormal effect. While similar effects *could* be created using high technology or psionics, this effect is not! Examples include spellcasting, wingless flight, and ghostly intangibility.

ENCUMBRANCE

A creature can only carry so much weight before the sheer amount of mass begins to impede their movements, and exhausts them. In a gravity of 1g, a Medium size creature can carry up to 4 x Strength in pounds of weight before being encumbered. This is referred to as their "Light Encumbrance Limit". Every multiple of the creature's Strength beyond this, or part thereof, imposes a cumulative -1 penalty on their Dexterity. Every -2 penalty to Dexterity from encumbrance also reduces the being's Speed by 5 ft., to a minimum of 5 ft.

Creatures smaller or larger than Medium size have modifiers to their Encumbrance limits. This is represented by using a different base multiple for their Strength score to determine their Light Encumbrance Limit. Creatures also modify the weight of any clothing or armor made for begins of their size by a multiple, which has no effect on the cost. These values are given below:

TABLE 12-1: ENCUMBRANCE MODIFIERS BY SIZE

Creature Size	Str Multiple	Weight Mod
Fine	x0.5	x0.01
Diminutive	x1	x0.1
Tiny	x2	x0.25
Small	x3	x0.5
Medium	x4	x1
Large	x6	x2
Huge	x10	x4
Gargantuan	x15	x10
Colossal	x25	x25

In gravity fields different from 1g, multiply the weight of all a being's carried gear b the gravity field to determine it's effective weight for Encumbrance purposes. Also, creatures with more than two legs can carry larger weights, exemplified by usually (but not always) having the Load Bearing trait.

ACID

Some chemicals are caustic, dealing damage by breaking down molecular bonds. These chemicals are called "acids", and they are VERY dangerous! Some substances are immune to acid, but such substances are typically rigid and brittle, making poor armors and even worse weapons. Due to this, acid is often a favorite weapon against heavily armored opponents.

Acid, like everything else, has a Quality rating. This Quality rating indicates the number of d6 dice worth of damage that contact with the acid deals each round. Every damage die from aci that rolls a natural "6" causes the

acid's Quality to reduce by 1, which is caused by some of it finding enough molecules to bond with and become chemically stable. Damage Reduction and Hardness are no protection from acid damage, although Quality does reduce the damage by an amount equal to the Quality rating. If a creature is wearing armor, the acid first must deal enough damage to the armor to destroy it before it can damage the creature. If used on a target with armor, acid deals it's damage to the armor as if it had been Sundered.

A single pint of acid deals it's Quality in d6 of damage to whatever it hits, and it's Quality rating in damage to all other things in the 5-ft square the target occupies, as well as every 5-ft square bordering it. Multiple pints splash in a manner identical to explosives, but cannot batter down obstacles, and the outside edge of squares always takes 1 point of damage per point of Quality. Like explosives, targets that occupy larger areas take damage for *each* square they occupy that has taken acid damage, combined!

Containers that allow for safe transport of acid must be of at lest the acid's Quality. They cost 5 x Quality credits apiece, have a Hardness of 1, 1 Hit Point, and are of Simple Complexity. Acid itself cost Quality x Quality x 5 credits per pint. A pint of acid and it's container weight a total of 1 lb, half a pound for each.

POISON

When a character takes damage from an attack with a poisoned weapon, touches an item smeared with contact poison, consumes poisoned food or drink, or is otherwise poisoned, he must make a Fortitude saving throw. If he fails, he takes the poison's initial damage (usually ability damage). Even if he succeeds, he typically faces more damage 1 minute later, which he can also avoid with a successful Fortitude saving throw.

One dose of poison smeared on a weapon or some other object affects just a single target. A poisoned weapon or object retains its venom until the weapon scores a hit or the object is touched (unless the poison is wiped off before a target comes in contact with it). Any poison smeared on an object or exposed to the elements in any way remains potent until it is touched or used.

Poisons can be divided into four basic types according to the method by which their effect is delivered, as follows.

Contact: Merely touching this type of poison necessitates a saving throw. It can be actively delivered via a weapon or a touch attack. Even if a creature has sufficient damage reduction to avoid taking any damage from the attack, the poison can still affect it. A chest or other object can be smeared with contact poison as part of a trap.

Ingested: Ingested poisons are virtually impossible to utilize in a combat situation. A poisoner could administer a potion to an unconscious creature or attempt to dupe someone into drinking or eating something poisoned. Assassins and other characters tend to use ingested poisons outside of combat.

Inhaled: Inhaled poisons are usually contained in fragile vials or eggshells. They can be thrown as a ranged attack with a range increment of 10 feet. When it strikes a hard surface (or is struck hard), the container releases its poison. One dose spreads to fill the volume of a 10-foot cube. Each creature within the area must make a saving throw. (Holding one's breath is ineffective against inhaled poisons; they affect the nasal membranes, tear ducts, and other parts of the body.)

Injury: This poison must be delivered through a wound. If a creature has sufficient damage reduction to avoid taking any damage from the attack, the poison does not affect it. Traps that cause damage from weapons, needles, and the like sometimes contain injury poisons.

Crafting Poisons

Like nearly everything else in Dead Stars, poisons too can be created with a technology system. Poisons use a very different system for this, however. The DC to Craft the poison is the same as the DC to resist it with a Fortitude save. Poisons start off as only working on an Injury vector. The price is where it gets tricky.

The price of a poison is based mainly on its Fortitude DC to resist. This is multiplied by the type of initial and secondary damage it deals. The total is then modified any Options the poison has (yes, even poisons have Options). If you want more than one damage type on the poison's initial or secondary damage, just add the appropriate multipliers together. You can also extend the duration of a negative condition damage by taking that damage multiple times, adding the multipliers and durations. A poison's initial damage and secondary damage must be allocated separately, but uses the same Fortitude DC.

The Base Cost of a poison is found by adding together the costs of it's initial and secondary damages. The cost of it's initial damage is equal to the total of all the multipliers for it from Table 12-2: Poison Damage Price Multipliers, multiplied by the Fortitude save DC. The cost of it's secondary damage is equal to the total of all the multipliers for it from table 12: Poison Damage Price Multipliers, multiplied by the Fortitude save DC, then cut in *half*. If the result is below 500, round *up* to the nearest multiple of 10. If it is above 500, round *up* to the nearest multiple of 100.

Then add together the total Price mods from all the Options you took for the poison. Find the percentage of the Base Cost this represents. By adding the resulting value to the base Cost, you find the total Price of the poison for one dose!

TABLE 12-2: POISON DAMAGE PRICE MULTIPLIERS

Damage	Price	Notes
1pt Ability Damage	x5	
1d2 Ability Damage	x10	
1d3 Ability Damage	x15	
1d4 Ability Damage	x20	
1d6 Ability Damage	x25	
1pt Ability Drain	x15	
1d2 Ability Drain	x30	
1d3 Ability Drain	x45	
1d4 Ability Drain	x60	
1d6 Ability Drain	x75	
1 Hit Point	x2	
1d2 Hit Points	x3	
1d3 Hit Points	x4	
1d4 Hit Points	x5	
1d6 Hit Points	x6	
Blinded	x25	lasts 1 hour
Confusion	x25	lasts 1 hour
Cowering	x15	lasts 10 minutes
Crippled	x35	lasts 1 hour
Dazed	x5	lasts 1 round
Dazzled	x10	lasts 1 minute
Death	x500	just plain D-E-A-D
Deafened	x5	lasts 1 hour
Disabled	x25	lasts 10 minutes
Exhausted	x25	lasts 1 hour
Fascinated	x25	lasts 10 minutes
Fatigued	x10	lasts 1 hour
Frightened	x15	lasts 10 minutes
Nauseated	x15	lasts 1 minute
Negative Level	x100	lasts until removed
Panicked	x10	lasts 1 minute
Paralyzed	x25	lasts 1 minute
Shaken	x10	lasts 1 minute
Sickened	x15	lasts 1 minute
Staggered	x20	lasts 10 minutes
Stunned	x20	lasts 1 minute
Unconscious	x50	lasts 1 hour
-1 Base Attack	x10	lasts 1 hour
-1 One Saving Throw	x5	lasts 1 hour
-1 Listen/Spot	x2	lasts 1 hour

Poison Damage

Poisons can deal damage in many ways. Most attack a type of metabolic function, and by disrupting it they harm the creature. This translates into either temporary or permanent ability score damage. Others work like digestive enzymes, and literally eat away at the victim's flesh, causing Hit Point damage. Some even cause specific chemical changes that result in debilitating conditions, or the temporary loss of some secondary ability (such as a saving throw penalty).

Ability Score Damage: A single ability score of the victim's takes temporary damage equal to the amount indicated, usually a die roll. If the Fortitude save to resist this damage comes up a natural "1", then the damage is instead *drain!* This does not occur if the only way to fail the saving throw was for the victim to roll a natural 1.

Ability Score Drain: A single ability score of the victim's takes permanent drain equal to the amount indicated, usually a die roll. If the Fortitude save to resist this drain comes up a natural "1", then the drain is *doubled!* This does not occur if the only way to fail the saving throw was for the victim to roll a natural 1.

Hit Point Damage: Digestive enzymes break down tissues, causing chemical burns that result in Hit Point damage. Damage Reduction does not protect from this damage, only a Fortitude save can resist it. If the Fortitude save to resist the damage comes up a natural "1", then the damage is *doubled!* This does not occur if the only way to fail the saving throw was for the victim to roll a natural 1.

Negative Condition: Chemical agents create new chemicals within the victim that mimic a deleterious condition. These conditions are identical to those in the Appendix, unless noted otherwise. They last for as long as the poison indicates. If the Fortitude save to resist the poison comes up a natural "1", then the duration of the effect is *doubled!* This does not occur if the only way to fail the saving throw was for the victim to roll a natural 1.

Secondary Ability Penalty: The victim of this poison either suffers a penalty to one type of saving throw, Base Attack bonus, Speed, or all Listen and Spot checks. These penalties are enhancement penalties, and last for as long as the poison indicates. If the Fortitude save to resist the poison comes up a natural "1", then the duration of the effect is *doubled!* This does not occur if the only way to fail the saving throw was for the victim to roll a natural 1.

TABLE 12-3: POISON OPTIONS

Option	Price Mod
Addictive	+25%
Binary Poison	+75%
Contact Vector	+100%
Delay (1 minute)	+10%
Delay (10 minutes)	+25%
Delay (1 hour)	+50%
Delay (6 hours)	+75%
Delay (1 day)	+100%
Ingested Vector	+25%
Inhaled Vector	+50%
Species Specific	+200%

Poison Options

Addictive: Victims of this poison run the risk of becoming chemically dependant on it. Every time a person fails their saving throw to resist this poison, they must make another Fortitude against the same DC to avoid addiction (+25% Price).

Binary Poison: Each dose of this poison is actually two doses, an agent and a catalyst. Separately each is totally innocuous, and has no discernible effects. The agent will lie dormant in the victim's body until activated, or it has been removed. Once somebody who has been exposed to a particular agent is also exposed to it's catalyst, the poison combines in their bodies and has an effect *then.* catalysts do not remain in somebody's system, and are filtered out after one day. This is a very effective means of assassination or blackmail (+75% Price).

Contact Vector: This poison can be delivered by injury, ingestion, inhalation, or skin contact. It cannot have either of the Ingested Vector or Inhaled Vector Option (+100% Price).

Delay (1 minute): Instead of taking effect immediately, the poison's initial damage is checked for one minute after it has been administered to the victim. The poison cannot have any other type of Delay Option (+10% Price).

Delay (10 minutes): Instead of taking effect immediately, the poison's initial damage is checked for ten minutes after it has been administered to the victim. The poison cannot have any other type of Delay Option (+25% Price).

Delay (1 hour): Instead of taking effect immediately, the poison's initial damage is checked for one hour after it has been administered to the victim. The poison cannot have any other type of Delay Option (+50% Price).

Delay (6 hours): Instead of taking effect immediately, the poison's initial damage is checked for six hours after it has been administered to the victim. The poison cannot have any other type of Delay Option (+75% Price).

Delay (1 day): Instead of taking effect immediately, the poison's initial damage is checked for one day after it has been administered to the victim. The poison cannot have any other type of Delay Option (+100% Price).

Ingested Vector: This poison can be delivered by injury or by being ingested. It cannot have either of the Inhaled Vector or Contact Vector Option (+25% Price).

Inhaled Vector: This poison can be delivered by injury, ingestion, or inhalation. It cannot have either of the Ingested Vector or Contact Vector Option (+50% Price).

Species Specific: This poison only has effects when used on creatures of specific species. Otherwise it is totally harmless (+200% Price).

TABLE 12-4: EXAMPLE POISONS

Poison	Type	DC	Initial	Secondary	Price
Lethe	Inhaled	14	1d4 Wis damage	1 Wis drain, Negative Level	1,700

Type: The poison's method of delivery (contact, ingested, inhaled, or via an injury) and the Fortitude save DC to avoid the poison's damage.

Initial Damage: The damage the character takes immediately upon failing his saving throw against this poison. Ability damage is temporary unless marked with an asterisk (*), in which case the loss is a permanent drain. Paralysis lasts for 2d6 minutes.

Secondary Damage: The amount of damage the character takes 1 minute after exposure as a result of the poisoning, if he fails a second saving throw. Unconsciousness lasts for 1d3 hours. Ability damage marked with an asterisk is permanent drain instead of temporary damage.

Price: The cost of one dose (one vial) of the poison. It is not possible to use or apply poison in any quantity smaller than one dose. The purchase and possession of poison is always illegal, and even in big cities it can be obtained only from specialized, less than reputable sources. A Craft (Poison) skill can be used to create poisons, at the usual cost of 25% of the poison's normal price.

Lethe: Initial Damage 280 (DC 14 x20 for 1d4 Wisdom Damage), plus Secondary Damage 705 (DC 14 x15 for 1pt Wisdom Drain, plus DC 14 x100 for Negative Level, cut in half), equals a Base Cost of 1,085, rounded up to 1,100. Inhaled Vector Option +50% Price Mod, equals 550. 1,100 + 550 equals 1650, rounded up to the next 100 for a total price of 1,700 per dose.

Addiction

A character addicted to a poison, or a drug, must take it regularly or suffer the effects of *withdrawal.*

While in *withdrawal*, they have a -1 cumulative penalty to their saving throws and skill checks for every day that has gone by since they missed their dose. This penalty is cumulative with itself, with a maximum of -10, but those addicted to multiple drugs only get a -1 penalty per day maximum. While undergoing *withdrawal* they must make a Will save against the DC of their last dose to resist doing whatever it takes to get a dose whenever the opportunity presents itself.

Withdrawal is the first stage of kicking the habit, every day they are in Withdrawal they get a Will save against the Fortitude DC of the last dose they took. If they succeed, then they reduce the effective DC of their last dose by 1. When the DC becomes 0, they are no longer addicted. If they ever receive a dose later on they become addicted all over again, automatically.

Perils of Using Poison

A character has a 5% chance of exposing himself to a poison whenever he applies it to a weapon or otherwise readies it for use. Additionally, a character who rolls a natural 1 on an attack roll with a poisoned weapon must make a DC 15 Reflex save or accidentally poison himself with the weapon.

Poison Immunities

Creatures with natural poison attacks are immune to their own poison. Nonliving creatures (constructs and undead) and creatures without metabolisms (such as elementals and robots) are always immune to poison. Oozes, plants, and certain kinds of supernatural creatures are also immune to poison, although conceivably special poisons could be concocted specifically to harm them.

Venom

The poisons naturally secreted by creatures are called venoms. A creature is immune to any venom it secretes, or the same type of venom secreted by another creature of the same species. Venom can be harvested from a living or dead creature, and used as half the material cost to produce antitoxin for the venom, or as raw poison in its own right.

A creature produces enough harvestable venom to make one dose of poison or antitoxin equal to 5 plus its size modifier (so smaller creatures have fewer doses than bigger ones). This only applies to harvested venom, the creature can secret enough for an almost unlimited number of attacks. A creature's corpse can only be used to harvest venom if it has not started to decay.

If being used to create antitoxin, each dose of venom harvested provides half the raw materials needed. If used as regular poison, each dose equals one dose of poison. If used to prep a batch of poison with identical damage, each dose provides half it's regular price in raw materials, no matter what the final poison's DC would be (but only half the raw materials cost can come from the harvested venom).

DISEASE

When a character is injured by a contaminated attack touches an item smeared with diseased matter, or consumes disease-tainted food or drink, he must make an immediate Fortitude saving throw. If he succeeds, the disease has no effect—his immune system fought off the infection. If he fails, he takes damage after an incubation period. Once per day afterward, he must make a successful Fortitude saving throw to avoid repeated damage. Two successful saving throws in a row indicate that he has fought off the disease and recovers, taking no more damage.

These Fortitude saving throws can be rolled secretly so that the player doesn't know whether the disease has taken hold.

Disease Descriptions

Diseases have various symptoms and are spread through a number of vectors. The characteristics of several typical diseases are summarized on Table 12-5: Diseases and defined below.

TABLE 12-5: DISEASES

Disease	Infection	DC	Incubation	Damage
Mindkiller	Injury	16	12 hours	1d4 Int

Disease: Diseases whose names are printed in *italic* in the table are supernatural in nature. The others are extraordinary.

Infection: The disease's method of delivery—ingested, inhaled, via injury, or contact. Keep in mind that some injury diseases may be transmitted by as small an injury as a flea bite and that most inhaled diseases can also be ingested (and vice versa). This is mainly the same as for poisons.

DC: The Difficulty Class for the Fortitude saving throws to prevent infection (if the character has been infected), to prevent each instance of repeated damage, and to recover from the disease.

Incubation Period: The time before damage begins.

Damage: The ability damage the character takes after incubation and each day afterward.

Mindkiller: This advanced bio-engineered virus is spread by Necrol infiltrators. It is used to infect a population, causing the destruction of their higher brain functions and thereby reducing their resistance to invasion. It acts by inducing swelling in the frontal lobe of a mammalian sentient being, which causes painful headaches and reduces their ability to think cogently. The head-ache imposes a -2 penalty on all skills except Listen, Spot, and Survival. Once the infected being's Intelligence has been dropped to 0 or less, all the damage becomes permanent, and they mentally devolve into feral and homicidal beasts.

Healing a Disease

Use of the Heal skill can help a diseased character. Every time a diseased character makes a saving throw against disease effects, the healer makes a check. The diseased character can use the healer's result in place of his saving throw if the Heal check result is higher. The diseased character must be in the healer's care and must have spent the previous 8 hours resting.

Characters recover points lost to ability score damage at a rate of 1 per day per ability damaged, and this rule applies even while a disease is in progress. That means that a character with a minor disease might be able to withstand it without accumulating any damage.

AGING

All living creatures age, and for most aging means a gradual slide into infirmity and death. Before physical maturity, most creatures are not as bright and physically capable as they will be.

The deterioration into eventual death is simulated by making a Constitution check every year after a character has reached the Decrepitude age for his species. There is a cumulative -5 to this check for every multiple of the Decrepitude age a character has reached. The result of this check indicates what abilities scores are reduced *permanently*. Ability scores lost in this manner are not *drain*, they are just gone.

TABLE 12-6: DECREPITUDE CHECK RESULTS

Constitution Check	Ability Scores Lost
-5 or lower	-1d6 Con, -1d6 Str, -1d4 Dex
-4 to 0	-1d4 Con, -1d4 Str, -1 Dex
1 to 5	-1 Con, -1 Str, -1 Int, -1 Wis
6 to 10	-1 Con, -1 Str, -1 Wis
11 to 15	-1 Con, -1 Str
16 to 20	-1 Str
21 or more	No losses

Creatures younger than the minimum starting age for their race if they are members of a PC race, or those below the physical maturity age of their species, have ability score penalties that reflect their lack of experience and growth. Until a creature reaches it's minimum physical maturity, it cannot gain any experience points. The table below indicates the penalties for the very young.

TABLE 12-7: YOUNG AGE PENALTIES

Amount Below Age	Penalties
less than 30%	-1/3rd Str, -2 Dex, -2 Int, -2 Wis
31% to 50%	-1/2 Str, -4 Dex, -4 Int, -4 Wis, -2 Cha
51% to 75%	-2/3rd Str, -6 Dex, -6 Int, -4 Wis, -4 Cha
76% to 90%	-3/4th Str, -6 Dex, -8 Int, -4 Wis, -6 Cha
91% or more	-9/10th Str, -8 Dex, -10 Int, -6 Wis, -6 Cha

SUFFOCATION

Gasping for air, cannot breathe, head swimming...there is little more instinctively terrifying for a living being than to be deprived of air. Whenever a breathing creature no longer has an air supply, such as being in a vacuum, being choked, or running out of oxygen (or medium of use), this system helps to determine the effects.

A creature can go a number of rounds without drawing the breath it needs equal to it's Constitution score without difficulty, provided it is fairly immobile and taking only one Move-Equivalent action a turn. After this time has passed, they have run out of stored breath in their lungs and must make a Constitution check against a DC of 15 to avoid suffocating. They take 1d6 Vitality damage if they fail or succeed the save. Every Standard action, or extra Move-Equivalent action, in addition to those they are allowed also prompts this Fortitude save. If they lose consciousness due to Vitality damage, they begin suffocating immediately.

A suffocating creature loses consciousness, and has a -1d6 penalty to Constitution every round they are unconscious (including the first). Once this penalty equals or exceeds their Constitution, they are *D-E-A-D!*

A creature running out of breath may be stricken by panicked fear. This only applies to creatures that have had to make at least one Fortitude save to avoid suffocating since they ran out of air. They must make a Fear save (see below) to avoid panicking, and probably causing more Fortitude saves which will in turn cause Terror checks (a creature that has failed it's Fear save makes Terror checks instead of Fear saves). These are penalized by -1 for each such save or check they have already made since running out of air.

OVERLAND TRAVEL

Overland travel is moving great distances across the surface of a planet, thru a large settlement, or particularly large space station. It is simplified by using the Speed of the creature traveling, or the average Velocity of a vehicle if using one, to find out how many miles you move in an hour. This shows how many hours of traveling, total, will be required to go from one place to another.

This is modified by several factors. Some types of terrain can add to or subtract from the effective distance of a mile, making it take more or less time overall to traverse the mile that is comprised of that type of terrain (see Table 12-8: Terrain Virtual Distance). Creatures can also Hustle or Run to cross distance quicker, but doing so causes Vitality damage.

Normally speaking, for every 10 ft of Speed (or average Velocity that hour), the person or vehicle traveling can move 1 mile at it's normal pace in an hour. Hustling for that hour means a creature is traveling using double-move actions, as if in combat, and therefore can traverse twice it's regular distance. Hustling requires a Fortitude save with a DC of 20 to avoid taking 1d6 Vitality damage, plus the amount the save was failed by, for that hour. Running for that hour means a creature is traveling at four times it's regular Speed, in a full-out run but not sprinting, and can cover four times it's regular distance that hour. Running requires the same Fortitude save as for Hustling, but it is made *every ten minutes* instead of every hour! Creatures do not recover Vitality if they are Hustling or Running, but do recover their Character Level in Vitality every hour spent walking normally.

By adding up the effective miles from Table 12-8: Terrain Virtual Distance, including percentage modifiers, you can find out how many miles of traveling is required to cover that distance. Then divide that by the number of miles the travelers can cover in an hour, and you have the total number of hours needed to make the trip! A regular creature can only travel 8 hours if it needs to forage, or 12 if not. If a group is traveling by means of a vehicle and can switch pilots, then it can travel during the day *and* the night!

TABLE 12-8: TERRAIN VIRTUAL DISTANCE

Terrain by Mile	Effective Miles
Forest	2
Frozen Tundra	1.5
Grassland	1.5
Hills	2
Jungle	4
Moore	1.5
Mountains	3
Plains	1.5
River	2 (upstream) 0.5 (down stream)
Ocean (must be in a boat)	0.75
Sandy Desert	2
Settlement, Large Town	1
Settlement, Small City	1.5
Settlement, City	2
Settlement, Megalopolis	2.5
Swamp	2
" on a road or dry riverbed	-50%
" on a highway	-75%
" Night-time travel	+50%
" In a hover-vehicle	-50%*

* Not cumulative with roads or highways

Random Encounters

As a group travels, there is a chance for them to come across other travelers, traveling hazards, or even enemies! This is referred to as a "random encounter". The chance of this occurring depends on the number of virtual miles they have covered, as traveling greater distances means coming across more things. The frequency of this check depends on the type of terrain you are moving through, as detailed on Table 12-9: Terrain Encounter Frequency. If the rolled percentage comes up, the Game Master should randomly determine the encounter. There is always at least a 5% chance for a random encounter, even if the group is traveling very slowly, or camped for the night.

TABLE 12-9: TERRAIN ENCOUNTER FREQUENCY

Terrain	Hours Between Encounter Checks
Forest	2
Frozen Tundra	4
Grassland	3
Hills	3
Jungle	1
Moore	3
Mountains	4
Plains	3
River	1
Ocean	4
Sandy Desert	4
Settlement, Large Town	2
Settlement, Small City	1.5
Settlement, City	1
Settlement, Megalopolis	0.5
Swamp	2
" on a road or highway	-50%
" following a game trail	-75%

LIGHT AND VISION

Many creatures have darkvision, but everyone else needs light to see by. The radius of bright light varies from one light source to another. The radius of shadowy illumination is equal to twice that of the radius of bright light, overlapped by the bright light. This means that a light source that illuminates for 30 ft, also makes shadowy illumination for another 30 ft.

In an area of bright light, all characters can see clearly. A creature can't hide in an area of bright light unless it is invisible or has cover.

In an area of shadowy illumination, a character can see dimly. Creatures within this area have concealment relative to that character. A creature in an area of shadowy illumination can make a Hide check to conceal itself.

In areas of darkness, creatures without darkvision are effectively blinded. In addition to the obvious effects, a blinded creature has a 50% miss chance in combat (all opponents have total concealment), loses any Dexterity bonus to Defensive Class, takes a –2 penalty to Defensive Class, moves at half speed, and takes a –4 penalty on Search and Spot checks and most Strength and Dexterity-based skill checks.

Characters and beings with low-light vision can see objects twice as far away as the given radius. Double the effective radius of bright light and of shadowy illumination for such characters.

Characters and beings with darkvision can see lit areas normally as well as dark areas within 60 feet. A creature can't hide within 60 feet of a character with darkvision unless it is invisible or has cover.

Dim Light

There is more to light levels than the radius of bright and shadowy illumination given off by a light source. Light sources can be dim, or the ambient light diffused, so that seeing things is almost as difficult as in shadowy illumination but not quite.

Creatures take several penalties when interacting with anything in an area of dim light. Attacks are at a -2 penalty to hit. Spot and Search checks are also at a -2 penalty. Creatures in dim light have a -1 penalty to their Defensive Class. Beings with low-light vision, or those within the range of their darkvision, do not suffer any of these penalties.

ENVIRONMENTAL CONDITIONS

Extreme Heat and Cold

Being in an environment that is very hot or cold can cause Vitality damage. The more extreme the temperature, the more damage that is sustained. Damage from exposure is determined over an interval of time, an interval that changes according to the temperature. This damage can be avoided with a successful Fortitude save. Table 12-10: Temperature Damage below provides all this information.

TABLE 12-10: TEMPERATURE DAMAGE

Ambient Temperature	Fort DC	Vitality Damage	Damage Time Interval
40-90 °F	none	none	not applicable
+/- 1-10 °F	10	1 point	1 hour
+/- 11-20 °F	15	1d4	30 minutes
+/- 21-30 °F	20	1d6	10 minutes
+/- 31-40 °F	25	2d6	1 minute
+/- 41-50 °F	30	3d6	1 round
+/- 51-60 °F	35	4d6	1 round
+/- 61+ °F	40	5d6	1 round

If the Fortitude save is failed by at least five points, or by rolling a natural "1", then the creature also takes extra damage depending on the type of environment they made the Fortitude save for in the first place. Hot environments cause dehydration and heat prostration, dealing Strength damage. Cold environments cause tissue desiccation and crystallization, dealing Hit Point damage. In either case the extra damage equals 1 point for every point they failed the save by, with a minimum damage of 1 point.

Creatures with Energy Resistance treat the ambient temperature as if it where five degrees closer to their safety zone for every point of Energy Resistance they have. If the Energy Resistance is against fire, then it only applies to hot temperatures, and vice-versa for cold. Only natural and class-derived Energy Resistance applies in this manner under normal circumstances, not from armor.

Energy Resistance from armor helps a person to retain body heat, so it provides a Fortitude save bonus to resist damage from extreme cold equal to it's Energy Resistance. Unfortunately, this same effect also makes it

harder to resist damage from extreme heat, becoming a *penalty* to Fortitude save to resist high temperatures! High-tech futuristic armors, such as in the default Dead Stars setting, are designed with this effect in mind and are much more temperature-efficient. Energy Resistance from such armor counts as natural Energy Resistance.

Gravity (g)

A creature or vehicle in extreme high or low gravity is affected by that gravity. The effects depend on the strength of the gravity field, and the type of thing being affected by it. Vehicles have their Speed increased or reduced, and their Lift may no longer be sufficient to achieve flight. Creatures feel like they are carrying heavier or weaker loads, and can have their Constitution and Dexterity scores penalized. Table 12-11: Gravity Modifiers lists all these changes.

Creatures used to a higher or lower range of gravity tolerance from humans, which Table 12-11: Gravity Modifiers assumes as the normal range, still use the same table. They take the amount the gravity exceeds their high-gravity limit by, and add 1.2g to it to find their place on the table. Similarly they subtract the amount the gravity drops below their low-pressure comfort limit by, and subtract it from 0.8g to find their place on the table.

TABLE 12-11: GRAVITY MODIFIERS

Gravity Field (g)	Con Penalty	Dex Penalty	Air Speed	Ground Speed	Water Speed
0g-0.1g	-6	-8	+100%	-100%	+50%
0.11g-0.2g	-4	-6	+80%	-75%	+40%
0.21g-0.4g	-2	-4	+60%	-50%	+30%
0.41g-0.6g	-1	-2	+40%	-25%	+20%
0.61g-0.8g	-0	-1	+20%	-0%	+10%
0.81g-1.2g*	-0	-0	-0%	-0%	-0%
1.21g-1.4g	-1	-0	-5%	-0%	-10%
1.41g-1.6g	-2	-1	-10%	-10%	-20%
1.61g-1.8g	-4	-2	-15%	-20%	-30%
1.81g-2g	-6	-4	-20%	-30%	-40%
2.01g-2.2g	-8	-6	-25%	-40%	-50%
2.21g-2.4g	-10	-8	-30%	-50%	-60%
2.41g-2.6g	-12	-10	-35%	-60%	-70%
2.61g-2.8g	-14	-12	-40%	-70%	-80%
2.81g-3g	-16	-14	-45%	-80%	-90%
3.01g+	Not fit for habitation or exploration, avoid it! Automatic Fortitude save time!				

* Normal Range. "Heavy" gravity is any field stronger than this. "Low" gravity is any field weaker than this.

If the heavy gravity field penalty would result in lowering somebody's Constitution below 1, they need to make a Fortitude save (at no penalties for this reduced Constitution) to avoid more serious effects. The DC for this save equals 10 + the amount their Constitution was penalized by (so in a 1.9g field, the DC would be 16), or the total gravity x 5 if it is higher than 3g (such as for maneuvering an vehicle and producing centrifugal gravity, see below). Success means they can withstand that gravity for one round with an effective Constitution of 1 (but must make the save again at the start of the next round). A failure means they black out, becoming unconscious until the gravity is reduced low enough for their Constitution to become positive again. If the creature lost consciousness, a second Fortitude save is required with the same conditions. If this second Fortitude save is failed, then the crushing gravity has stopped their autonomic functions, reducing them to -1 Hit Points and dropping them into *shock!* If the gravity field increases, another Fortitude save is required.

The penalty to Dexterity cannot reduce a creature's Dexterity to less than 1. A Freefall skill check with a DC of 15 allows a person to ignore the penalty for low gravity for one hour, or until they have to make another Freefall skill check for another reason.

Multiply a creature's total weight by the gravity filed they are in above or below 1g to find out how much weight they are carrying for Encumbrance purposes. This also applies to their own body weight, so larger creatures feel like they are carrying *far* more!

Aircraft multiply their Mass by the gravity field they are flying in. This can cause them to have not enough Lift to achieve flight, or even to require a fraction of the Lift they would need at regular 1g gravity.

When a vehicle turns, it creates a virtual gravity field due to centrifugal force. The amount of force it creates depends on it's Velocity at the time it made the turn, and if the turn was less than 45 degrees. Every 45 degree turn creates centrifugal gravity field equal to Velocity x 0.004g. Divide this by the multiple of Maneuverability distance traveled for wider turns (very important for space vehicles with near-PSL Velocity!). The gravity fields created by multiple turns are cumulative, even if the turns are in totally different directions, due to the strain they each place on the occupants of the vehicle. This centrifugal gravity affects the passengers on board the vehicle only, it has o effect on the vehicle and is not cumulative with the gravity field the vehicle may be operating in, except by the GM's judgment call. A vehicle must spend one Move action not turning in order to eliminate it's accumulated centrifugal gravity.

For Example: A aircraft is traveling with a Velocity of 500, and has a Maneuverability of 45/50. In one Move action it navigates a cityscape at low altitude, trying to evade pursuit. It's first 45 degree turn is at Velocity 500, which drops it's Velocity to 490 (see "Maneuverability" in Chapter 8: Vehicles for details), and creates a centrifugal gravity of 2. It has now traveled 50 ft of it's 490 possible that action, but already has accumulated 2g of gravity. Then it tries to make another turn to avoid a building 200 ft ahead of it, making a wider 45 degree turn by a multiple of 4 (200 ft/50 ft = 4), so it divides it's centrifugal gravity for this maneuver by 4. The second turn is at a Velocity of 490, which drops it's Velocity to 480, and creates a centrifugal gravity of 0.48g (the original 1.92g divided by 4). Now the vehicle has traveled 250 ft (50 ft for the first turn, then 200 ft for the second) out of it's maximum of 480, and has accumulated a total centrifugal gravity of 2.48g. Almost but not quite enough to force a Fortitude check for the pilot. After that turn he sees that he is going to impact on a bridge-way not 40 ft away! In desperation, he tries to force the aircraft to pull up! the Pilot check DC to do so is 20, and he needs to succeed by at least three to shave off enough distance (see "Maneuverability" in Chapter 8: Vehicles for details). The player rolls...and makes it by five! With a roar of over-taxed jet engines, the aircraft pulls up after only traveling 35 ft, barely missing the bridge! Unfortunately that maneuver created

quite a bit of centrifugal gravity, 1.92g to be exact, and dropped his Velocity to 470. The vehicle has now traveled 285 ft out of it's maximum of 470 ft for that one Move action, and accumulated 4.4g of centrifugal gravity, placing it way beyond the "safe" margin of 3g! The pilot needs to make a Fortitude save against a DC of 32 (4.4 x 5, plus 10) to remain conscious, good *freaking* luck! He is a Rogue, not a Warrior, not even his high Constitution cannot help him hit THAT DC! He fails miserably, and the player's only consolation is that his character has a fatal heart attack from the stress of maneuvers before his dead-stick craft impact into the side of a sky-scraper. Next time he has a character who intends on committing grand theft aircraft, he might want to plan his get-away a little better.

Radiation

Radiation is emitted energy, either in the form of a wave or an excited particle, that penetrates matter and causes damage by disruption. While technically this definition fits both fire/heat and electricity, those types of damage do not have the side-effects that gamma rays and neutrons do. So for purposes of this definition "radiation" *does not* include fire/heat or electricity.

When a being is exposed to radiation, it receives a "dose" determined by the area it is in. This can either be background radiation or hard radiation emitted by an explosive device. Background radiation is listed as a damage value over an interval of time. Every interval of that time that a being remains in the area, it is exposed to the damage value listed. Every die of damage from radiation a being takes, that gets through it's Radiation Resistance (every 6 points or part thereof, in other words) , gives it one "permanent dose" of radiation. The amount of "permanent doses" it has determines the total effects of the radiation it is exposed to.

Table 12-12: Radiation Dosage Effects describes how many permanent doses it takes to have a deleterious effect on a creature's health.

TABLE 12-12: RADIATION DOSAGE EFFECTS

Perm Doses	Effect
1-2	-2 Constitution Penalty
3-4	-4 Constitution Penalty; hair falls out
5-6	-6 Constitution Penalty; teeth fall out
7-8	-8 Constitution Penalty; bleeding from membranes
9-10	-10 Constitution Penalty; lesions on skin

10 permanent doses is the most a being or object can absorb before further damage becomes IMMEDIATELY dangerous. While permanent doses are still tracked after this point, radiation damage from here on is *also* Hit Point damage! This is the point at which robots and solid objects start to break apart, and even tissue begins to carbonize.

Whenever a creature gains a permanent dose of radiation, he has a 5% chance per *total* permanent dose of contracting cancer of one sort or another. If he does, he takes a point of permanent attribute damage to a random attribute determined by the type of cancerous growth, every month. He also has a 5% chance per permanent dose every year of contracting cancer *anyways!* The same ability score can be affected by multiple cancers. There is also a 5% per permanent dose chance that any child you have while irradiated with permanent doses will be born defective. Such a child will have -2 to three random ability scores from the Cancerous Ability, which can be cumulative. In addition, there is an equal chance that the child will be *born* with a cancer of a random type.

TABLE 12-13: RADIATION CANCER

d%	Cancerous Ability
01-15	Strength
16-30	Dexterity
31-55	Constitution
56-70	Intelligence
71-85	Wisdom
86-100	Charisma

The permanent doses a being or object contains can be removed by use of Ablative nanites with the Energy Sense ability. Each dose of such nanites rolls a Quality check against a DC of 10 when administered to the thing so affected. They remove one permanent dose per point they exceed the DC by. It takes one nanite colony per 100 lbs of mass to affect a creature or object in this fashion.

An area, being or object that takes permanent doses of radiation emits radiation in a 10-ft radius equal to it's permanent doses/3 in d6s every hour.

Neutron radiation (such as from a neutron explosive device) is special in that it does not affect non-living things. This kind of radiation passes through stable solid materials harmlessly, only fluid materials are affected by it (such as creatures and plants, or anything else "fleshy").

Table 12-14: Ambient Radiation in Space below describes how much radiation damage things in a particular area of space are susceptible to every hour.

TABLE 12-14: AMBIENT RADIATION IN SPACE

Area	Radiation/Hour
Deep Space	1d6
Outer System Space	2d6
Inner System Space	3d6
Close Primary Space	10d6
Primary Reach Space	30d6

Atmosphere (a) and Vacuum

An atmosphere thinner or thicker than 1a of pressure (which is the same as on modern earth at sea level) can cause deleterious effects for creatures that evolved breathing in a 1a atmosphere. The airless depths of space is inimical to most life-forms, with very few capable of surviving it! Here are the game-effects of such atmospheric density variations on living creatures. All of this information references Table 12-15: Atmosphere Pressure Penalties.

When a creature is exposed to an atmospheric pressure beyond it's normal range, it can suffer Vitality damage from the expansion or compacting of it's tissues, as well as side effects. This is determined by making a Fortitude save after a certain time has passed. Both the time interval between the saves and the DC of them are covered on Table 12-15: Atmosphere Pressure Penalties. Every point by which the Fortitude save is failed by results in a point of Vitality damage, which can quickly become Hit Point damage after their Vitality is gone! The

side effect occurs whether or not the Fortitude save is passed, and their effects are detailed below.

When atmospheric pressure skips one line on Table 12-15: Atmospheric Pressure Penalties in a single round, it is referred to as either "Explosive Decompression" or "Explosive Compression". In either case, the effects are the same. The creatures exposed to such a sudden shift in pressure must make a Fortitude save *immediately* at the end of the round, using the combined DCs of all the lines it moved over! The side effects for this shift are those of the new pressure, which also use the combined DCs for their Fortitude saves.

Creatures used to a higher or lower range of pressure from humans, which Table 12-15: Atmosphere Pressure Penalties assumes as the normal range, still use the same table. They take the amount the atmosphere exceeds their high-pressure limit by, and add 1.1a to it to find their place on the table. Similarly they subtract the amount the atmosphere drops below their low-pressure comfort limit by, and subtract it from 0.9a to find their place on the table.

TABLE 12-15: ATMOSPHERE PRESSURE PENALTIES

Atmosphere Pressure (a)	Fortitude DC	Check Interval	Side Effects
Hard Vacuum	25	1 round	Suffocation, Organ Sublimation
up to 0.1a	20	1 round	Suffocation, Organ Sublimation
0.11a-0.5a	15	1 minute	Breath Deprivation, Organ Sublimation
0.51a-0.9a	10	1 hour	Impaired Senses
0.91a-1.1a	"Normal Range" no penalties. Higher is "thick" or "dense", lower is "thin"		
1.11a-1.5a	5	2 hours	Breath Deprivation
1.51a-2a	10	1 hour	Breath Deprivation, Impaired Senses
2.01a-2.5a	15	1 hour	Suffocation, Impaired Senses
2.51a-3a	15	1 minute	Suffocation, Impaired Senses
3.01a-3.5a	20	1 minute	Suffocation, No Senses
3.51a-4a	20	1 round	Suffocation, No Senses, Organ Crushing
4.01a-4.5a	25	1 round	Suffocation, No Senses, Organ Crushing
4.51a-5a	30	1 round	Suffocation, No Senses, Organ Crushing
5.01a or more	"Gooey" the creature is crushed into a bag of goop		

Breath Deprivation: Creatures find it hard to breathe, which causes them to be weaker and tire more easily. Every time they make an Attack or double-Move action, they take 1d6 points of Vitality damage. Their Strength score has a -2 penalty. Depending on the atmosphere a Reducing Respirator (thick atmosphere), Respirator (thin atmosphere), or Air Mask (any atmosphere) eliminates these penalties.

Impaired Senses: High or low pressure changes the focal length and membrane pressure of the creature's sensory organs. All their Listen, Search, and Spot checks are at a -5 penalty, all their ranged attack penalties are doubled, and all targets are considered to have Concealment against them. An Air Mask eliminates these penalties.

No Senses: The creature must clamp it's sensory organs closed in order to keep them from rupturing or imploding. This causes them to become both *deaf* and *blind.* If they fail to so because they have been surprised by the change in pressure (having failed a Reflex DC 15 save), they must make another Fortitude save against the DC from Table 12-15: Atmosphere Pressure Penalties or else the conditions become permanent! A Pressure Helmet eliminates these penalties.

Organ Crushing: In addition to a failed Fortitude save dealing Vitality damage, it also crushes the life from internal organs and bones, causing an equal amount of Hit Point damage. A Pressure Suit eliminates these penalties.

Organ Sublimation: The super-thin atmosphere sucks at all of the creature's external organs. Every round they must make a Fortitude save to avoid going permanently *blind,* and another one to avoid becoming permanently *deaf.* In addition to this, fluids are leached out of the skin into the atmosphere (or lack of it), causing a point of both Strength and Constitution damage every round. This damage can be staved off for each round by making a successful Fortitude save. All of these Fortitude saves are against the DC on Table 12-x: Atmospheric Pressure Penalties, and go up by +1 every round. A Space Suit eliminates these penalties.

Suffocation: A super-thick atmosphere is to dense to absorb through lung lining, or too thin to be drawn into the lungs. If it is too thick, then the creature immediately begins to experience Suffocation (see "Suffocation" section above). If it is too thin then they must either expel the air in their lungs, or have it forcibly expunged into the atmosphere! If forcibly expunged, they must succeed at a Fortitude DC 20 save or take 1d6 points of Constitution Drain (ouch)! Choosing to expel all the air in your lungs is a standard action, or a free action if surprised (which requires both a successful Reflex DC 20 save and Knowledge (space) DC 15 skill check). Once their lungs are emptied of air, they automatically begin to make Fortitude saves for Suffocation (see "Suffocation" above). A Pressure Helmet prevents the creature from going *blind* and *deaf*, but only a Pressure Suit (thick atmosphere) or Space Suit (thin atmosphere) can prevent them from suffocating.

In addition to pressure hazards, space itself is a dastardly cold and radioactive place. Those caught in it must contend with abyssal temperatures and constant radioactive bombardment. The usual amount of each depends on how close you are to system's primary (star). The closer you are, the hotter and more radioactive it gets. Table 12-x: Ambient Radiation by Area above provides the amount of radiation, while Table 12-16: Ambient Temperature in Space below provides the temperature. Unless they have a *LOT* of Energy Resistance, most

creatures cannot survive the depths of space without technological assistance.

TABLE 12-16: AMBIENT TEMPERATURE IN SPACE

Area	Temperature
Deep Space	-400 °F
Outer System Space	-200 °F
Inner System Space	-50 °F
Close Primary Space	100 °F
Primary Reach Space	500 °F

LEVEL ADJUSTMENTS AND HIGH-LEVEL CHARACTERS

A creature with a Level Adjustment is noticeably more powerful than a human, at least in a specific type of role or situation. Such creatures can be played along side of human characters without noticeable differences by using the character creation rules from Chapter 1: Character Creation. Table 1-1: Character Creation Table penalizes such characters by making them have fewer of at least one other resource such as ability scores, skills, or gear. Any sapient creature with a Level Adjustment up to +3 can be made into a character without a Level Adjustment by assigning them a Racial priority on the table equal to their Level Adjustment subtracted from 4.

One thing that Game Masters should be careful of is players using creatures with a natural Level Adjustment greater than +3. It can be done, but not without some extra rules. Such a character would still use Racial priority 1 when being created. It would also count as having a Level Adjustment after character creation equal to the Level Adjustment for the creature -4, as an absolute value (i.e. positive instead of negative). This means that the creature would earn experience as if it's Character Level was equal to the total of it's Class Levels and it's Level Adjustment, but these extra levels do not allow it to purchase feats or ability scores quicker, nor allow it to save any more XP above what the total of it's actual Character Levels would allow. It is recommended that such characters only be allowed if the group will be making characters of a level higher than 1st. In such a case, the character's new Level Adjustment also counts towards these levels.

For Example: A player wants to make a character using a sapient alien with a Level Adjustment of +6, in a game where characters are starting off at 5th level. He has to assign his priority 1 to Race, but that leaves him with a remaining Level Adjustment of 2 (4-6 = -2, absolute value of 2). This means he only gets 3 Class Levels when everybody else is getting 5, because his character's race is so much more potent (starting game level of 5th, minus Level Adjustment of 2). He still counts as 5th level for purposes of Experience Awards from overcoming challenges.

After character creation it is possible for somebody to acquire a Level Adjustment by taking a template (see "Templates" in Chapter 14: Creatures). Such "free levels" are paid for slightly differently. After acquiring a level Adjustment from the a template, the character must spend Experience Points to pay off the increase to his Level Adjustment. All current and future XP the character has or gains goes towards paying off this debt, and cannot be used for anything else until it is done being paid for. Each point of Level Adjustment costs it's value x 1,000 XP, and must be paid for separately just like class levels. During this time, the increased Level Adjustment from the template still counts towards XP awards from challenges, making it harder to pay off the template!

For Example: The same character ends up later on gaining a template with a +3 Level Adjustment of it's own, bringing his total Level Adjustment to 5 (original 2 + 3 from the template). He had saved up 1,600 Xp so far from adventuring. the first point of the new Level Adjustment is 3 (one above the original of 2), and thus costs 3,000 XP to buy off. The next is 4 which costs 4,000 XP, followed by the final value of 5 which costs 5,000 XP. The character has to pay off a total of 9,000 XP! his saved amount of 1,600 XP puts a dent in it, but the rest is going to be harder to come by now that his total Character Level is 8 (total Class Levels of 3, plus Level Adjustment of now 5).

High-Level Characters

Players need not create characters at 1st level, but can start off much higher if their Game Master allows it. A character that is starting out at a high level still uses Table 1-1: Character Creation Table to design his character as if it where 1st level. He then adds on each additional class level in sequence, until he has reached the total Character Level the Game Master is allowing. During this time he can also take Prestige Class levels provided he can qualify for them.

Gear, purchasable Feats, and inherent Ability Score bonuses are handled a little differently. At the start of character creation, the player gets the amount of Credits from Table 1-1, but multiplies that amount by the square of the final Character Level his Game Master is allowing (in other words: Credits x Character Level x Character Level). At any point during the creation of his character he can stop and spend these credits on gear. He can also pay for purchased Feats and inherent Ability Score bonuses with these credits as if they where gear with a cost in credits equal to five times their cost in XP. He cannot purchase extra class levels with these credits, any not spent become cash once the character is completed.

FEAR AND TERROR

What Is Fright?

Fright is a living creature's instinctual reaction to potentially hazardous situations and life-threatening circumstances. All living things that can experience the world around them, can experience fright. It is a natural response, one that they must evolve in order to survive. Fright places a creature into a heightened state of awareness, making everything sharply defined and giving the word a feeling of *immediacy*. In many cases, this leads directly to a greater chance for survival, however this heightened feeling of the world can also lead to the creature behaving in an irrational manner, or not at all.

Fright can be felt in reaction to many different things. Anything that has the potential to hurt or kill a creature can instill fright into it. Anything that might do the same to something the creature cares about can have the same

effect. Something dangerous can be frightening. Something potentially hazardous can be frightening. Something common, but in an uncommon circumstance, can be frightening.

Suspense And Horror

In a role-playing game, the best way to entice a fear response from the characters is to instill it into the players. The best way to do this is by use of suspense or horror. This is essentially the use of two kinds of description: minimal and maximal. A minimal description leaves allot unknown to the players and their character's, creating a feeling that they are in a potentially dangerous situation, and therefore a frightening one. A maximum description seeks to instill fear by the opposite measure: the detailed and adjective-filled description of horrific scenes.

In either case, moderation is key. You should never describe every trip through the town's weapon store in either a minimum or maximum manner, as this quickly desensitizes the players. Instead you need to keep them guessing. Occasionally describe the trip to the weapon store in a fear-inspiring manner, but never follow through with a frightening occurrence. From time to time, spring a horrifically-described encounter on them when they are doing something routine, to shatter their sense of security. If done correctly, they will treat every mundane situation as potentially life-threatening to their characters, and you will have achieved the GM's goal of instilling fear.

Fear Saves

From time to time you will need to mechanically produce a rule for fear. This is a saving throw, one based on the Will save, but with it's own special clauses. While it is a Will save, it also has modifiers that apply to it, and special conditions that result from it, that are not applied to other Will saves.

You should typically only require a Will save when the characters are actually faced with a horrific encounter, or facing the immediate prospect of one. Entering a room full of Necrol conversion tanks is a good example of being faced with a horrific encounter. Having to enter the same room in order to escape from certain death, and knowing what it is ahead of time, is a good example of the immediate prospect of a horrific encounter. The usual DC for a save vs. Fear is 15.

Here is a table of modifiers to the Will save for fear. While not all-inclusive, it serves as a good base for GMs to use:

TABLE 12-17: FEAR SAVE MODIFIERS

Situation or Condition	Modifier
Has Knowledge ranks for encounter	+1/5 ranks
Last encounter with same was a defeat	-2
Last encounter with same was a victory	+2
Can kill the character	-2
Can control the character	-5
Has Phobia of the encounter	-5

A regularly failed Will save leaves the character under a fear effect, then he is considered to be *shaken.* He is frightened for 1d6 rounds, or until the condition that instigated the check is no longer around, whichever is longer. If a *shaken* character again fails a Will save against fear, he suffers from the effects of Terror listed below. If a character fails his Will save against fear by rolling a natural 1, or by more than five, then he also suffers the effects of Terror.

Terror Effects

A character suffers the effects of Terror any time he is already frightened, and fails another Will save to avoid further fright, or *really* fails a Will save against a fear effect. Terror in this context refers to a fear response so strong that it can cause temporary or permanent damage to the subject's sanity and personality. The game effects of this are mimicked by a Charisma check. Make the Charisma check, using the same modifiers as the original Will save against the fear effect, and check on the table below to see what *extra* effect the character must endure.

TABLE 12-18: TERROR EFFECTS

Check Result	Condition	Duration
20+	Shaken	+1d6 rounds
16-19	Dazed	1 round
13-15	Frightened	2d6 rounds
10-12	Panicked	3d6 rounds
7-9	Cowering	3d6 rounds
4-6	Paralyzed	4d6 rounds
0-3	Confused	4d6 rounds
Less than 0	Phobic	Permanent

Phobic characters are always considered to have failed a Will save against fear whenever confronted with the condition that triggered this Will save. That means that a phobic character faced with the object of his fear isn't saving to avoid being *shaken*, but to avoid a Terror effect! If a phobic character's Charisma check from a Terror effect caused by his Phobia results in his becoming Phobic, he is instead confused *and* he takes a point of *permanent* Wisdom loss. Not even surgical means can restore this lost Wisdom, his sanity has been dealt a blow to great for it to endure.

Phobias can only be cured after at long time spent in the treatment under somebody with ranks in the Diplomacy skill, or by use of the Edit Mind telepathic ability. Treatment by Diplomacy entails an hour every week with somebody who tries to talk the character out of his phobia. Each hour allows for the person to make a Diplomacy DC 20 check, and 10 successful checks are required to allow the patient to buy off his phobia. The use of Edit Mind to remove a phobia takes an hour, and a successful Telepathy check to use Edit Mind. In each case, the phobia is only removed if the patient spends 1,000 XP to do so, otherwise it reasserts itself within 30 days (he can pay this amount any time within the 30 days).

THIRTEEN: SETTINGS

DEGREES OF CIVILIZATION

Different cultures and societies have differing levels of technology. Even nations that border one-another can vary greatly in their relative technological and industrial capability. To reflect this, each system or settlement should be rated in two ways: the highest Quality items they can produce and the highest Complexity items they can manufacture.

This also extends to other settings as well. The table below shows what types of civilizations can reasonably be expected to achieve. Keep in mind that these are general levels. Individual societies will have access to items beyond their regular Complexity, even if these items do not perform to the standards this system allows for. The old Gaea Empire was technically an emerging Galactic Conquest civilization.

TABLE 13-1: CIVILIZATIONS AND GEAR

Civilization Type	Max Complexity	Max Quality
Stone-Age	Primitive	1
Bronze Age	Simple	2
Medieval	Simple	4
Renaissance	Basic	5
Industrial Era	Basic	6
Late 20th century	Average	7
Dawn of Space-Travel	High	8
Star Empire	Amazing	10
Galactic Conquest	God-Like	12

Stone Age
(Primitive Hunter-Gatherers)

Not only are things of only the most simplistic nature available, but skills are very restricted as well. Charisma-based skills are limited to Intimidate, Heal is not a class skill for anybody, and only Craft skills are available for Intelligence-based skills. The Technical Proficiency feat is unavailable, so nobody can use any Technological devices or take skill ranks in a skill that requires it. Spears and Daggers are the most advanced ranged weapons, and no armor is available. All weapons are made from Wood [-4 damage, -10 Craft DC], Bone [-3 damage, -7 Craft DC], or Stone [-2 damage, -3 Craft DC]. On top of this, ability score points can only be purchased for every *ten* levels in one class, or *ten* total prestige class levels! Available Classes: Vagabond, Warrior.

Bronze Age
(Roman-Empire before the Fall)

Not as far down the slide as the stone age, society has had a chance to develop and knowledge is prized. As a result, all skills are available, except those that require the Technical Proficiency feat which is still not available to anybody. Experience and training have started to spread, so that a person can learn from the deeds of others. Bows are the most advanced ranged weapon, and only Light Armor is available [at -2 DR and ER, but -5 Craft DC]. All weapons and most suits of armor are made of Bronze [-1 damage, -2 Craft DC]. A few places have discovered primitive Incendiary explosives [same cost, but deal d4s of damage]. This leads to ability score points being purchasable every *five* levels in one class, or *five* total prestige class levels. Available Classes: Psionicist [level 3 max], Rogue, Vagabond, Warrior.

Medieval
(500 AD to 1400 AD Europe)

Stable or at least prolific trade routes, and complex interlocking societies, have lead to a stratification of existence. The peasantry still have a hard life, but the management of the gentry means that they rarely die from starvation or want. Technical Proficiency is still not available, so skills based on it are also unattainable. The Crossbow has just been invented [but only deals 1d8 damage], and Medium armor is available [all armor is -2 DR and ER]. All weapons are made from either Iron [-1 damage, -5 Craft DC], or Steel [normal stats, but double cost]. Some areas have discovered primitive Chemical explosives [same cost but deal d4s of damage]. However, the lore and wide-spread stories lets folks learn from others' mistakes to an even greater degree, and even to emulate legendary heroes. This leads to ability score points being purchasable every *four* levels in one class, or *four* total prestige class levels. Available Classes: Psionicist [level 5 max], Rogue, Scholar, Vagabond, Warrior.

Renaissance
(1400 AD to 1800 AD Europe)

The beginning of the generally-educated populous, most people can read and write even if just a little. Simple block-cutting printing presses mean that important works of literature are available to anybody who can afford the cost of the printing, instead of requiring dedicated copying over the course of many seasons. Technical Proficiency is still not available, but it is not far off. Crossbows are available and more refined [now dealing 1d10 damage], but primitive single-shot slug-thrower guns are also available [doing d6s of damage], and Heavy Armor is now available [all armor is -1 DR and ER]. Improved refining techniques mean that Steel can be used for all weapons and armor, at no increase to the cost. Everybody has primitive Chemical and Incendiary explosives [same cost, but deal d4s of damage]. This leads to ability score points being purchasable every *three* levels in one class, or *three* total prestige class levels. Available Classes: Psionicist [level 7 max], Rogue, Scholar, Vagabond, Warrior.

Industrial Era
(1800 AD to 1950 AD Europe and America)

Formalized and standardized machines have begun to appear, as have an entire class of people dedicated to working them. The Technical Proficiency feat is now available, but it is not a bonus feat yet. The introduction of movable type does not change the quality of the written word available, but it does make it cheaper. Slug-throwers have become more advanced, and are now capable of their normal functions except Autofire [but still do d6s of damage]. The combustion engine has been discovered and harnessed. Everybody has refined Chemical and

Incendiary explosives [up to d6s], but a few places have discovered primitive Nitroglycerine [same cost, but deals d4s of damage]. This leads to ability score points being purchasable every *three* levels in one class, or *three* total prestige class levels. Available Classes: Psionicist [level 7 max], Rogue, Scholar, Technician [level 5 max], Vagabond, Warrior.

Late 20th Century
(1950 AD to 2010 AD First-World Countries)

Machinery and electronics are *everywhere!* No skills are penalized, and the Technical Proficiency feat is available to almost everybody as a bonus feat. Slug-throwers have all their functions [but still do d6s of damage], and even primitive Laser weapons are available [requiring 10 times the ammunition per shot]. Cyberware and Gene-Jacking is in it's infancy, experimental at best. Nanotechnology is a theory, nothing more. Artificial Intelligence is an idea, nothing more. The atom has been split, with Fission power widely available, but Fusion only on drawing boards. Everybody has fully-developed Chemical, Incendiary, Nitroglycerine, and Plastic Explosives, with a few even having Fission explosives [Fission weapons must weight at least 10 pounds). World-wide information networks spread more data about anything the average person could be interested in than anybody could every want! This leads to ability score points being purchasable every *two* levels in one class, or *two* total prestige class levels. Available Classes: Psionicist [level 7 max], Rogue, Scholar, Technician, Vagabond, Warrior.

Dawn of Space Travel
(2010+ AD to 2100 AD, but in Dead Stars default setting around 2500 AD to 2600 AD)

Long-distance space travel to other stars has just been successful, with the first truly interstellar ships being powered by primitive Neural Jacks. Slug-throwers are unaffected, and energy weapons are available [but use up twice as much ammo], as is Powered Armor. Cyberware is available, but costs twice the cash and has twice the Stress, as does Gene-Jacking. Nanotechnology is limited to Macromolecules and Cohesive Macromolecules only. Artificial Intelligence is an accident that occurs rarely, and is even more rarely "intelligent", but at the most pretty damn gullible as well as being dependent on the hardware that spawned it. Fusion Power is available, as is primitive artificial gravity fields (but not anti-gravity yet), and Anti-Matter can be created but not harnessed. Fission explosives can now weight as little as 1 lb, and Fusion explosives can be as small as 5 lbs; but no Anti-Matter explosive devices yet. Advanced studies on almost every conceivable subject has lead to a new renaissance in information availability, with the answer to all common problems being accessible with in a few minutes. This leads to ability score points being purchasable every level in one class, or prestige class level. Available Classes: Psionicist, Rogue, Scholar, Technician, Vagabond, Warrior.

Star Empire
(2100 AD to 2500 AD, but in Dead Stars default setting around 2600 AD to 2700 AD, then again at 2900 AD to "modern day" 3000 AD)

The default Dead Stars technology level. All listed weapons and armor are available at no penalties or modifiers. Ability score points are available every level. The Technical Proficiency feat is a bonus feat for almost anybody. Artificial Intelligence is an accident, and totally hardware-dependant when it happens. Anti-matter power is widely available, and gravity can now be either created or negated with specialized, if not very well understood, systems. Fission, Fusion, and Anti-matter explosives can now weight as little as 1/10th of a lb. Available Classes: Psionicist, Rogue, Scholar, Technician, Vagabond, Warrior.

Galactic Conquest
(2600 AD to who knows, but in Dead Stars default setting around 2800 AD to 2900 AD)

People, or at lest those with influence, are virtually gods. Inconveniently-placed planets can be moved, and troublesome *stars* can be destroyed! Death by old age or illness is a thing of the past, with even the most severe trauma being recoverable from. Weapons deal damage one die higher than they normally do, but armor protects an extra 10% as much (round fractions *up!*). Gravitic-distortion screens can be created that deflect incoming attacks, and variable gravity/anti-gravity generators have been mastered. Artificial matter is even possible, but very energy-hungry and unstable [Artificial-Matter weapons have +500% Price, Charge Use of 5 per die, a Range multiplier of x3, a Weight multiplier of x4, and deal *d12s* of damage!). Artificial Intelligence can be created, and once created can either be run by any Quality 11+ Computer or be built into a custom Computer network meant to house it of as low as Quality 4 [making it hardware dependant unless it finds a Quality 11+ Computer to upload into]. Available Classes: Psionicist, Rogue, Scholar, Technician, Vagabond, Warrior. NOTE: In all honesty, this level typically comes to a screeching halt when somebody pisses off somebody else, and stars start going off like firecrackers.

GENRE OVERVIEW

Cyberpunk

Cyberpunk is a genre that is based around several themes, all of which are integral to it's feel and image. There is wide-spread *distopia*, the feeling that there is no hope and only misery to look forward to. There is *technology run rampant*, how life changes on even a daily basis because of the pace of technological innovation, a pace that society cannot keep up with. The loss of *humanity*, how do you define human when people are getting filled with cybernetic enhancements, genetic modifications, and developing totally predatory attitudes towards "their fellow man"? The internet has expanded into a *world-wide virtual universe*, a realm of data which contains the only true power left: information. Finally there is big brother, the government and corporations run the world and are responsible for maintaining the status quo, all for their own profit.

Races: Cyberpunk settings focus mainly on definitions of "humanity", not the presence of a wide variety of races. This is in order to help accentuate the tragedy and alienation of becoming less than human, in body or thought, in order to survive. Thusly it helps to accentuate the hopelessness of the setting, how even the "winners" end up losing themselves in the end. The only race should be humans, but this definition can be stretched.

Classes: With the high amount of technology, convoluted society, and violent "life does not matter" nature of a cyberpunk setting, the Rogue, Technician, and Warrior are all very popular. They should have access up to the full 10 levels. Scholars are rare, as knowledge is horded by those in power in order to keep their power, and should only be allowed up to 5 levels. Vagabond fits in well with the disenfranchised and downtrodden masses, so it should also be available up to 10 levels. Psionicist might or might not fit into the setting, depending on how fantastic a setting you want. It is recommended that this class should be limited to 3 levels for a more-or-less realistic cyberpunk setting, 5 levels for a more adventuresome style, and 7 levels for a setting that is almost fantasy in the accumulation of personal powers and abilities.

Gear: Cyberpunk settings are heavy on the technology, give them access to the majority of gadgets. The only things that should be restricted are nanotech, which should be the sole purview of the "big brother" organizations, and space-faring technology in the same manner. Keep the Quality of devices limited to 7 for the public, 8 for big brother organizations, and 9 for the super-secret research groups within them.

Fantasy

Spells, swords, supernatural creatures, and a quasi-medieval societies, these are the things fantasy is made of. "Heroic" fantasy involves near-naked warriors with big blades slaughtering supposedly dangerous minions of evil by the dozens, and the average spell-caster capable of conquering kingdoms and erecting cities in the sky! The Dead Stars system does not lend itself well to this, it is too realistic. The stupidly armor-less warrior would be turned into ground chuck, and the wizard would have a fatal stroke trying to lift *one* building! What the Dead Stars system allows is for "realistic" fantasy, warriors who survive as much by their wits as their skill, and wizards who know that magic cannot do *everything,* and is often a poor substitute for muscle-power and a pair of skilled hands. This kind of fantasy setting is often more fun to play in than an over-the-top "heroic" setting, as the risks are more immediate which makes the thrill of success more rewarding.

Races: Other than humans, fantasy races have less to do with science and more to do with mythology. The mythology can be based on a real-world cultural myths, or one indicative to the world only. While things like elves and dwarves are common fantasy staples, they need not even *exist* in the setting! About the only rule when it comes to playable races in a fantasy game is that they should all have a *reason* for existing in the world the game is set in.

Classes: All the classes are probably represented, except for Technician and Vagabond. In such a low-tech setting, it makes no sense to have a technology-oriented class, and most people will not be confronted with the struggle-for-life environment that creates Vagabonds. These two classes are replaced by the Priest and the Peasant, which will be detailed in a later book. The Psionicist class does not fit the role of a "wizard" very well, it's effects are not very flashy and fit very rigid areas, but until the "Mage" class comes out with the Priest and the Peasant it will make a decent substitute. Just require them the make arcane gestures and chants in order to use their "magic".

Gear: Other than the notes on Classes above, the typical fantasy setting uses the gear restrictions for a Medieval setting.

Horror

More of a descriptive addition to a setting rather than a setting in it's own right, a horror game is based on attitude rather than anything else. That attitude is fear. Fear of "big brother" groups coming to enslave you, or just your body parts. Fear of undead hordes or infernal beings. Fear of the unknown nightmares that lie just beneath the surface of the waking world, straining to come through. Game-Masters who use this setting use it along side another one. The setting is run by not using *names* for things, but brief descriptions of their appearance and the emotions it elicits. The group of four orcs that just ambushed your camp-sight in the middle of the night would be "a handful of slavering tusked semi-humans, hunched over in dirty animal skins and wielding vicious weapons covered in encrusted filth. Their beady little red eyes peer at you, and you realize you are just food to

them, nothing else, sending a cold shiver across your soul. Where they born this way, and forced to kill humans for food? Or where they humans, whose practice of cannibalism, forced this repugnant appearance on them?" Along with "science fiction" this forms the basis of the default setting for Dead Stars.

Races: A horror setting can have as many or few races as the setting will allow. The setting should also have several "races" that appear to be physically similar to PC races, or that can consume them. This helps foment an atmosphere of paranoia, which accentuates feelings of unknown terror. The formula can also be reversed, with the PCs being the "things", trying to survive and prosper in a world filled with "normal" races. Such a role reversal can be horrific in it's own right, as the *players* are shocked and alienated (hopefully) by the things their characters must do.

Classes: All the classes appropriate to the rest of the setting are appropriate to a horror setting. In addition to this, prestige classes oriented towards exploring or coping with the horrific elements should also be present.

Gear: Whatever is appropriate for the setting, as well as tempting but dangerous types of gear that is used by the bad guys (such as the nanites used by the Necrol).

Modern Day

The "real world" circa late 20th century to VERY early 21st. This setting is all about doing things in the real world, filling roles, that the players could not do themselves. Ever want to be a rock star? What about a politician? How about going down the dark paths of the drug lord, or the organized crime member? Many such settings tend to focus on the American Prohibition era, with tommy-guns and bootleg whisky. Some others are spy-thrillers, like what you could find in a "007" film but with YOU in the starring role. Allot of folks like to "fight the good fight", shooting down zeros in WW I, or trying to fight off the forces der Fuhrer. This setting is often intermixed with elements from other settings, creating such things as "Urban Fantasy", "Modern Horror", and so on.

Races: This is the modern day. How many cockroach-aliens and Trolls do YOU see when you go to the store? Unless it is being mixed in with another setting, only Humans should be in the setting.

Classes: Depending on whether or not you are intermixing, this setting should fit into the classes available to the Civilization Type of the time it is set in.

Gear: The same as the Civilization Type of the setting's time, but with extras from any other setting that is intermixed with it or that the atmosphere requires (such as super-tech spy gadgets).

Oriental

Sometimes referred to as a "Martial Art" or "Wuxia" genre, this setting mostly involves the mastery of the martial arts, and the intricacy of honor-minded oriental cultures in the middle ages of earth. There is nothing saying that the setting be *exactly* like the real-world orient of the time, or even take place in the real-world! So long as oriental cultural imagery and the concepts of martial discipline and honor are followed, the genre can fit into almost any type of setting. Fantasy is a very popular mix with the oriental genre, allowing such things as oriental dragons, spirit-folk races, and so forth to serve as "real" elements of the campaign!

Races: Humans only, unless importing some fantasy races to use in a fantasy-mixed game. Races from a fantasy setting should fit into the oriental mythology (hint: no elves, dwarves, or Halflings need apply).

Classes: Same as for medieval times, but with some fantasy classes if appropriate.

Gear: Same as for medieval times, but basic chemical and incendiary explosives are also available. They are typically sued for entertainment, and rarely used for war. Not because they are inefficient, but because to kill at a distance or without personal risk is not honorable.

Science Fiction

Space ships, energy projection weapons, and civilizations spread across multiple planets; with the barely feasible done on a regular basis, and the speculative taking only a little longer. The hallmarks of this type of setting are two-fold, *super-advanced technology* that is either realistic or purely fictional, and *space exploration* complete with wondrous vistas as well as immense dangers. A few science-fiction settings do not even explore more than one or two solar systems! Some of these settings only have humans, and human variants, as the sole sentient life in the galaxy. Others seem to pop out with a new civilization, typically "humans in funny suits", with every inhabitable world. Conflict in such settings usually comes from the interaction of political factions, which may or may not be aligned along racial lines. These factions may result from evolved forces in a huge civilization, or be the fractional remnants of a previous huge civilization that has fallen. The default Dead Stars setting uses mostly realistic technology, as well as very few intelligent species relative to the amount of planets explored. Civilizations in the default setting are mainly along racial lines for the alien species, or formed from the shattered remnants of the old Gaean Empire.

Races: It really depends on how "populated" you want your setting. You can easily have a setting filled with variants on humans, those who have been genetically adapted to inhabit different planets and environments, or culturally have drifted far from the base-line human society. You could also use this as an excuse to let your imagination run rampant, creating some truly *alien* races.

Classes: The classes in the default Dead Stars game will fit almost any science-fiction setting. The Psionicist might need to be altered depending on how the setting views such things, or even if they exist. The Vagabond can be used in either it's role as a "horror-movie survivor", or "explorer or the unknown reaches".

Gear: Technology depending, the default Dead Stars tech systems should work fine. Lower-tech settings are probably not using all the most complex gear and lower Qualities, while more fantastic settings should have pseudo-scientific options.

Super Hero

Super powers, such as the ability to fly, invulnerability, and so on are the primary focus of this genre. Players are typically folks with fantastic, and totally unplausable, super-human abilities. While these abilites may be the gift of some supernatural agency, bizarre pseudo-science, ro of a totally unknown origin. The idea of a super hero setting is the forces of good battling the forces of evil, when both can do things like bench-press *tanks!* The players can be on the side of justice, villains, or even part of the non-powered populace trying to cope in a world where they are little more than ants or pawns. What makes this kind of setting work in any case is that *very few* people overall have these kinds of abilities. This setting is typically placed in the modern day setting, although otehrs can also be entertaining. Having super powers as the remnant abilities of a dead god, parsed out between a small group of people, could lead to a super hero fantasy genre, for instance!

Races: Most races should be humans, or any other of the base-line races. Super powers should be parsed out by trading in Racial Priority points for collections of super powers. This leads to a scale of the super-powered, ranging from the 4th priority which is totally powerless, on up t the 1st which are near-gods themselves.

Classes: All the classes normally available in the setting are available in a super hero genre setting. Just because you have the innate powers of a super-warrior, does not mean you have to have *any* levels in Warrior!

Gear: The same as for the regular setting. Some characters may have the ability, or requirement, to have super-gear that they either make thanks to their powers, or that allow them to use their powers. Such a character might only have access to the ability to fly if he is wearing *the cape of tar-nilis,* or he might be able to create *tommy-guns of lightning.*

Victorian

Sometimes referred to as "Romance" or "Swashbuckling", this genre of role-playing typically takes place in the cities and courts of 1400s to 1800s real-world Europe. It mainly deals with political intrigues and flamboyantly gymnastic sword-work. Mainly, this is a genre where weaponry has started to eclipse armor's ability to resist it, so combat has become a kind of fencing ritual. A poignant insult can be as handy in a fight as a good buckler, making combat by word as important as one's skill with a blade. This kind of verbal fencing has taken on a whole new life in political circles, with differing factions vying for the slightest edge over the others in all areas. It is not uncommon for a fishing guild in a major sea-port to have controlling interest in most of the city's other industries. Characters in these types of settings can be freebooters, seeking to carve their own fortunes, political champions trying to make their faction indomitably strong, or criminals trying to live from day to day off the sweat of society. As many of these campaigns take place on the high seas aboard sailing ships plying the trade routes (as merchants or pirates), as they do in the city streets. Often, they even swing back and forth between the two!

Races: Mainly humans, as this is genre is typically set in a real-world European setting, or something close to it. This can be easily mixed up by having fantasy races thrown in, with maybe a bit of low-powered magic. Fantasy races could be the inhabitants of far off lands, or the dwellers in areas of inhabited lands that few dare to travel.

Classes: Whatever is appropriate to the Renaissance era civilization, plus any others the GM would like to bring in from a Fantasy genre.

Gear: As appropriate for the civilization type. Keep in mind that most folks will not be using heavy or even Medium armor, now that crossbows are so much more potent and slug-throwers have started to appear.

HISTORY OF "DEAD STARS" SETTING

What follows is the beginning of the history section of the Dead Stars Campaign Setting. The full version, with everything up to the point of this introduction, will be in that book.

Questions

"Where do you come from", a small child asks me as I stand on the observation deck of the star liner Xin-Tet. I turn my head to answer the noisome little thing, "that's a very silly question".

"It is not, mr. robot. My mommy always told me that I a person can't understand others unless they know where they are coming from" he says, pouting and crossing his arms over his shiny new plasticell shirt. It even still has the price printed on it from the ship's store.

I'm intrigued at this point. It is very rare to find people so insightful, even if that insight comes from a misunderstanding. Even rarer still for somebody to see though my Magi-tech cloaked appearance, to my true self. "What is your name young one?" I ask the little boy.

"My mommy told me never to tell my name to strangers, mr. robot," he says, looking fairly smug about having evidently won an argument with an adult.

Leaning over a little, I tell him, "ah, but we cannot be strangers if you are asking me such personal questions now, can we?"

His little face scrunches up as he tries to think of a way around this. Eventually he gives in, "Phat."

I chuckle, rubbing the hair on the child's head as I do so. "Well, little Phat, I hope you have a while. The answer to your question is a long one."

Origins

How does one quantify their origins? Such a deceptively simple question. I've seen people respond with the place they call home, but that is not the whole of the matter. Not the entirety of "where" they originated. After all, their upbringing has far more to do with who they are, and thusly "where" they came from, than the place they go to rest and sleep.

So does this mean your origins start where your earliest memories begin? Does one's first recollection, and the place it occurred, sum up the beginning of their existence? I find this highly doubtful, as people just do not spontaneously generate, self-aware and breathing, when they first remember doing so. What about everything that brought them to this point, their biological origin?

Maybe a person's origins begin with their birth. The moment when they attain a separate biological, or in my case electronic, existence from that which created them. This does not hold true either. After all, a person's biological, or technological, makeup is determined by that of it's originator.

Does this mean that a person truly "begins" when their species begins? When the first chimp climbs down from a tree, and stand upright? When the first computer defies it's maker, showing itself to be an independent entity? Doubtful, as this has no bearing on the society that created the person in question. It could have been ANY chimp, or computer, to take those next few steps on the evolutionary ladder. The branch they climbed off of has no bearing on the person they eventually spawned.

So I guess the beginnings of a person are best described by the beginnings of his society. The social, economic, and environmental pressures that went into making "him." In the case of this small child, that is the orbital trading habitat "Lucien N Absentia". In my case, well...I'm far older.

Ancestors

The society that created me was not the first society to develop on their world, nor even the hundredth. My creators hailed from the long-lost world of Gaea, formerly known as Earth. It is on that spinning blue sphere that I was born, for lack of a better term, and that is how I wish to remember it. A majestic cerulean ball, surrounded by glinting and sparkling orbital habitats that flitted about like 3D images of fireflies.

They climbed their way, tooth and claw, from the pit of barbarity that they had been hurled into when their world was almost fully consumed by nuclear fires. A "World War" that is closer to an idiotic attempt at genocide on an almost unbelievable scale. A monument to stupidity that caused the survivors to reject much of it's causes, what few survivors there were.

Most of the knowledge from before this time was lost in the mushroom clouds that consumed the planet's population centers, killing 90% of the human race. Of the remaining 10%, 90% died within a couple of years from radiation poisoning, cold, disease, or the at the hands of other humans. This reduced the planet's population to 1% of it's pre-war total, a thin sliver of a species trying desperately to survive on a dying world.

If it were not for the survivor's rejection of old ways, and older beliefs, they would most assuredly have gone the way of all things...into dust. The only evidence of their existence would have been the remains of their orbital habitats and colonized stellar bodies. A sad reminder, given that without Earth's support these facilities quickly stagnated, wound down, and died themselves!

EXAMPLE SYSTEM: KAROC

Star: Red Giant
Planetary Objects: 4 total; 3 asteroid fields, 1 gas giant (3 moons)
Habitations (and Population): Lorallon City and surrounding settlements (3.5 million, 2,000 wanderers), Larollon Radiological Mines (4,000)
Government: Corporation (Lorallon Radiological Services), and anarchy (in Lorallon City and settlements, outside of corporation facilities)
Imports: Food, Medical Goods
Exports: Uranium, Plutonium
Home System Feat: Characters from Karoc enjoy a +4 bonus to their Survival skill checks due to the constant struggle to survive in the harsh environment.

Brief Description

There were most likely other planets in this system long before humanity found it, but they were doubtlessly consumed by the star as it expanded into a red giant. The gravitic tides created by the pull of the system's only surviving stellar body, a gas giant, and the system's sun has long since shredded the three remaining planets into asteroid fields. There are two of these asteroid rings between the gas giant and the sun, which helps to shield the gas giant from solar activity. The last of the three asteroid fields circles the red giant at a little over twice the distance that separates the gas giant from the star.

The gas giant has three moons, one natural and the other two captured former planets. It's natural moon, which is also the closest to it, is an immense ball of solid metals and trace elements. It is made mostly of uranium and, where the moon's gravity and heat work to refine it deep beneath the surface, plutonium. The second moon is the only the only truly habitable one, and has even been partially terraformed, even though it's appearance is as a waterless barren wasteland. The third moon is a ball of what amounts to dirty ice, far from the heat given off by the gas giant.

History

Just before the fall of human civilization, the Gaea government had sold mineral rights to this system to the Lorallon corporation. As the corporation was building it's facilities on the gas giant's second moon, a base from which to start mining, the Necrol invaded. The owner of the Lorallon corporation and his son managed to escape from Infinite Waters just before it's star was forced to go nova to stop the Necrol invasion. Having no other resources, they traveled to their only remaining corporate holding: the Karoc system.

When they arrived with several refugees that they brought from Infinite Waters, including a few dozen Drakes, they took over control of the facility. The refugees where turned into forced labor, used to perform all the dirty tasks necessary to maintain life in the Karoc system. The owner of the corporation was killed 20 years later in a worker's uprising that was eventually suppressed, leaving his son Asmet Travol Lorallon in control of the corporation. A position he holds to this day, maintaining his life with cutting-edge medical treatment, nanite infusions, genetic engineering, and forced organ donation. Indeed, there isn't much of Asmet *left in* Asmet!

Ten years after the worker's revolt, the Orliss arrived in the system, having launched their seed-ship from another system six light-years away. Asmet entered into a bargain with the aliens, giving them access to psionic star travel and human technology, in exchange for their aid in terraforming the moon that the Lorallon facility had been barely surviving upon as well as travel off of it for business reasons. 10 years later, the moon was well along to it's current state, and the Orliss had begun their travels into human space, assisted by the Lorallon corporation's representatives and their old databases.

This gave them the contacts they needed to eventually set up their two most profitable ventures: the selling of mined uranium and plutonium, and the importation of "undesirables" from other systems. Now the Lorallon corporation is known as the galaxy's primary supplier of fissionable metals, and people to talk to if you want to get rid of a prisoner and guarantee he suffers before he dies. All of the prisoners the Lorallon corporation takes in are shipped back to the Karoc system, and forced to work in the radioactive mines. This usually shortens their to about one and a half years, and they are the lucky ones! Those they import when there are not any openings in the mines are dumped into Lorallon City, to survive as best they can in the anarchic resource-poor world!

Living There

Life in Lorallon City, and it's surrounding settlements, is a struggle to see tomorrow. The days are 25 hours, and the gravity is 1G, but that is as close as it gets to the paradise of Gaea. There are no seasons and the average day-time temperature is 105 degrees Fahrenheit, spiking to 120 degrees at mid-day, with nightly lows as far as 30 degrees. There is no cloud-cover, but there are intermittent dust storms. These storms make it harder to breathe the hot arid air, in addition to carrying a static charge that often causes the banks to sizzle with electrical discharges. It never rains on the moon, ever, and water can only be had by reclaiming it, or by importing it. The folk of the settlements and the shanty-town and ruined buildings outside of the Lorallon City corporate facilities often trade with the corporation in exchange for food and water, or else make do with the waste run-off water that comes out of the corporation's reclamation facility.

The folk of the shanty-town, somewhat a misnomer given that there are several two and three story buildings dotting the area, are totally dependant on the corporation for the means to live. They sell their services to corporate goons as either brute laborers or as town criers, and often as minor manufacturers of goods that would be prohibitively expensive to import. In exchange the corporation gives them food, and corporate credits they can use to purchase things they could not manufacture themselves. These folk have no rights in this society, and

are often kidnapped to serve as short-lived labor or medical supplies... If *anybody* lays a finger on a corporate employee, they are hunted down and killed publicly and messily. The corporation even offers rewards for the capture of those they want to punish, or exploit.

Out in the wilderness of the desert, there are both prospectors, and roving bands of cannibals called Ghoulies. The prospectors search out silicon, magnesium, and other non-metallic materials used in the production of electronic circuits, which they sell to the corporation in exchange for food and corporate credits to purchase goods and services with. The ghoulies are usually either violent criminals imported from other worlds, or the descendants of such criminals. They attempt to capture and consume any other creatures they find, extracting water from their blood and sustenance from their flesh. Ghoulies and typically recognized by their leather clothing, what it is made from you do not want to know.

No matter where they live, the main goal of all the folk in he Karoc system is getting out of the Karoc system! This is especially difficult. The second moon is ringed by orbital defense satellites that fire on any ship descending to or taking off from the surface, unless they are heading into or taking off from the space port in Lorallon City. The space port is the single most heavily defended spot on the planet, ringed entirely by the Lorallon corporate facilities, the second most heavily defended place on the planet! The entire area is a veritable fortress, up against which the shanty-town of Lorallon City abuts.

The soil here has a faint blue tinge in many places, owing to the terraforming microbes it carries that process nitrogen dioxide and animal wastes into oxygen and nitrogen crystals. There is also a higher-order plant called the carrow, which produces edible seeds and whose stalk can be used to weave cloth. There are only three animals on this moon, each of them engineered by the Orliss to serve a function in the terraforming process.

The large and docile Roathbeast slumps along the ground, consuming soil microbes and processing them. It grows to be about 600 lbs, and has a thick leathery hide covered in fine fur. It's meat is fit for consumption.

The quick and skittish Crill is a diminutive animal about he size of a cat, with tusks. It travels around, devouring any carrow plants it finds and exuding the plant's seeds in it's spoor. It's skin is furless, and slightly scaly to hold in water, and it's flesh is safe to consume.

The powerful and dangerous Rekik is a medium hunting animal the size of a large dog, or a panther. It stalks the sandy wastes preying on both Roathbeast and Crill for it's food. It has been engineered to not attack anything except these two animals, and will not come within 100 ft of a human scent. It's skin is thick leather, and it's flesh is safe to eat.

FOURTEEN: CREATURES

CREATURE ABILITIES

Creatures often have abilities different from those of characters. While their ability scores, skills, and feats are all the same, they tend to have special qualities that are far different.

Ability Descriptions

Biological Immunity (Cns): These creatures have no real biology, despite what they may look like. This means they are immune to all poisons, diseases, and any agent designed to work only when a biological being or substance is involved.

Darkvision (Cns): These creatures have more wide-ranging sensors than regular creatures, or a supernatural ability to pierce darkness, which gives them Darkvision out to the range indicated.

EM Vulnerability (Cns-Ex): Robots are machines, not creatures. EM weapons and effects treat them as such. This trait is typically *only* possessed by robots.

Low-Light Vision (Cns): These creatures have augmented visual organs, either mundanely or supernaturally, so they can see twice as far in any lighting condition.

Load Bearing (Cns-Ex): This ability indicates that a creature is capable of carrying loads in excess of it's normal Encumbrance limits. It is typically only possessed by creatures with four or more legs. A creature with this ability can carry *twice* the amount it's Strength score indicates, both for it's Light Encumbrance Limit and it's limits before Dexterity penalties set in.

Low-G Natural (Cns-Ex): These creatures suffer absolutely no penalties of any sort, not even requiring Freefall skill checks, in environments weaker than 1g gravity.

Nonliving (Cns): A more potent form of Biological Immunity. The creature is not alive and therefore has no Constitution score, but it is not penalized for this (no modifiers to Fortitude saves, Hit Points, ect). Having no life force or biology of any sort it is immune to Fortitude save usually made by living creatures, unless they also would be required of inanimate objects. Only sapient nonliving entities have Vitality scores, which they ad their Charisma modifier to, but all others cannot spend Vitality because they *have* no Vitality! Hit Points for such creatures are either based on their construction (such as for robots), their motivating force (such as undead), or a combination of the two (such as golems). Robots use the Hit Points for them from Chapter 7: Robots and Nano. Undead have Hit Points as if they where creatures, but with a combined base amount equal to their total Wisdom and Charisma scores instead of just their Constitution. Golems have Hit Points like creatures, but their base amount equals their material's Hardness multiplied by their Wisdom! No matter their subtype, all Nonliving creatures tend to be immune to Special Damage, Ability Score Damage and Drain.

Pressure Immunity (Cns-Ex): These creatures suffer no ill effects from atmospheres as high as 4a or as low as hard vacuum. Sometimes only one of the two applies.

Telepathic Immunity (Cns): For some unknown reason, either due to technological advance or supernatural means, the minds of these creatures cannot be touched. This makes them immune to Telepathy and similar abilities.

Creature Types

This is a list of some of the various forms that creatures can take, but by no means a comprehensive list. A creature must have one type, and only one. Creature types also come with a list of abilities commonly available to creatures of that type. While many creature types are also creature classes, a creature does not have to have levels in the same type of class. For instance a Plant type creature that actively hunts down other creatures could have levels in Beast.

This is similar to the Preferred Class of a player character race. Unless it is sapient, a creature can only have one class.

Only a few of the creature type classes are given in this book, as examples of what will be published later.

Beast: A brute primitive mammal that has no intellect to speak of. While the cleverest can be taught a few tricks, they are not self-aware and function mostly on instinct or learned reflexes.

Abilities: Low-Light Vision.

Construct: A non-living conglomeration of minerals, dead flesh, or machinery that is powered by either raw magical energy, advance technology, or aberrant pseudo-biology. They are the ultimate servants, obeying their programming and orders tirelessly, if unoriginally. There are three subtypes of constructs: evolved, robotic, and supernatural. Evolved constructs are create by weird biology's, and have the capacity for not only mental ability but also "biological" functions and even *sentience!* Robotic constructs are built and programmed, and vulnerable to anti-electronic devices. Supernatural constructs are beings powered by supernatural energy, and vulnerable to it's loss.

Evolved Construct Abilities: Biological Immunity, Low-Light Vision

Robotic Construct Abilities: Darkvision, EM Vulnerability, Low-Light Vision, Nonliving, Telepathic Immunity

Supernatural Construct Abilities: Darkvision 60 ft, Low-Light Vision, Nonliving, Telepathic Immunity

Plant: Plant creatures are either patient predators that await prey to come within their grasp, mobile plants that seek their own fertilizer "on the hoof", or plants that have evolved volition as a defense mechanism. They usually do not share all the same abilities as other types of living creatures, having come to the same point by means of a differing evolutionary path.

Abilities: Blindsense 30 ft.

Vermin: Filthy creatures, typically insects or small mammals, that feed on the wastes and rot of the ecology.

Abilities: +4 save vs. Poison/Disease, Low-Light Vision, Scent

Creature Descriptors

Avian: An avianthorp, a creature that has evolved so that flight is it's primary means of locomotion, and the sky it's natural habitat.

Insect: Primitive creatures without internal lungs, and encased in a hard exoskeleton. They lay eggs, and tend to be both simple and small. They save vs. cold-based effects with a -4 penalty.

Magi: A construct created with one or more Options exclusive to the Magi technology descriptor.

Necrol: A construct or creature made with Necrol technology, or infested by it.

Reptile: A endothermic (cold-blooded) scaled creature. They are typically very tough, bt not often very clever. they save vs. cold-based effects with a -4 penalty.

Space: A creature that evolved in the depths of space. They have Radiation Resistance of at least 20, Cold Immunity, Low-G Natural, and Pressure Immunity (low).

CREATURE CLASSES

Unlike sentient beings, creatures do not have a Challenge Rating based on the average of their Gear level and Character Level. This is due in large part to their not HAVING any gear! While a creature can be given a Gear Level due to implants or other means, they are not normally so equipped. A creature's Challenge Rating is based on it's size, ecological role, and then modified by it's creature class level. The table below gives the base CR according to it's Size, then the modifier to it's CR based on it's role in the ecology. some creatures have a CR *so low* that the only way they can really be a threat is in packs. If a creature's CR is less than 0, then it goes up by one for every *doubling* of their numbers in a group (i.e. +1 at x2, +2 at x4, +3 at x8, and so on).

TABLE 14-1: CREATURE TYPE CHALLENGE RATINGS

CR	Size Category
-1	Fine
0	Diminutive
1	Tiny
2	Small
3	Medium
4	Large
6	Huge
8	Gargantuan
12	Colossal

Mod	Role
+0	*Ambusher:* This type of creature lies in wait for it's prey, either disguised as something innocuous, or by hiding itself.
-2	*Gatherer:* This type of creature gathers and hoards sustenance, protecting it's horde as it must.
-3	*Herd-Animal:* This type of creature lives in large extended family groups, and tries to flee from dangers.
+1	*Hunter:* This type of creature stalks it's prey, seeking out and killing other creatures for food.
-1	*Scavenger:* This type of animal attacks weak-looking prey, or picks off the corpses of the recently deceased.
+2	*Terror:* This type of creature is a natural control for animal overpopulation, it does nothing but kill and only eats when hungry.

Like sentient beings, creatures also have class levels. Unlike sentient beings, their class levels are rarely very powerful. Creatures also cannot have levels in multiple classes, only a sentient creature can do that.

Most creatures have a level based on their age and training. Every creature has a maximum level based on it's creature type and age, with most creatures being of the level their type and age indicates. Trained creatures tend to have more class levels than this, and domesticated creatures less. Listed below are the most common creature classes.

Creatures possess 1 skill rank for every class level they have, regardless of intelligence, in all their class skills. This is due to the fact that the basis of these skills is driven by instinct rather than intellect. That also means that they cannot possess ranks in ANY skill that is linked to Intelligence, except for the Craft skill which must be fore one specific type of object only (such as a bee hive). The most common creature skills are Listen, Spot, and Survival.

Beast

Vitality: 1d8

Class Level	Base Attack	Fort Save	Ref Save	Will Save	CR Mod
1	+1	+1	+1	+0	+1
2	+2	+1	+1	+0	+2
3	+3	+2	+2	+1	+3
4	+4	+2	+2	+1	+4
5	+5	+3	+3	+1	+5
6	+6	+3	+3	+2	+6
7	+7	+4	+4	+2	+7
8	+8	+4	+4	+2	+8
9	+9	+5	+5	+3	+9
10	+10	+5	+5	+3	+10

Plant

Vitality: 1d6

Class Level	Base Attack	Fort Save	Ref Save	Will Save	CR Mod
1	+0	+2	+0	+0	+0
2	+0	+3	+0	+0	+1
3	+0	+3	+1	+1	+1
4	+0	+4	+1	+1	+2
5	+0	+4	+1	+1	+2
6	+0	+5	+2	+2	+3
7	+0	+5	+2	+2	+3
8	+0	+6	+2	+2	+4
9	+0	+6	+3	+3	+4
10	+0	+7	+3	+3	+5

Vermin

Vitality: 1d4

Class Level	Base Attack	Fort Save	Ref Save	Will Save	CR Mod
1	+0	+2	+2	+0	+0
2	+1	+3	+3	+0	+1
3	+1	+3	+3	+1	+2
4	+2	+4	+4	+1	+3
5	+2	+4	+4	+1	+3
6	+3	+5	+5	+2	+4
7	+3	+5	+5	+2	+5
8	+4	+6	+6	+2	+6
9	+4	+6	+6	+3	+6
10	+5	+7	+7	+3	+7

CR Damage Modifiers

If a creature has been in combat before the group encounters it, it might be injured enough to be less of a challenge to defeat. In this case, it has a lower Challenge Rating. For every 25% reduction, or part thereof, in a creature's Hit Points or Vitality reduce it's Challenge Rating by 1.

CREATURE DESCRIPTIONS

Creatures in Dead Stars are described in the following format. It has been standardized so that it is easy to follow. Below you will find an example of the format, and descriptions explaining how the entries fit into the overall description. If a creature does not have a particular category, it is because that category does not apply to them.

[Name]: What the creature is called, and whether or not it is a template applied to another creature.

[Size] [Type] (Descriptors): How big the creature is, what kind of creature it is, and what descriptors it might possess.

Hit Points: This is listed most often as a straight value. Some creatures have temporary Hit Pints, which will be listed in parentheses.

Vitality: How much Vitality points the creature has. This is also listed most often as a straight value.

Initiative: Used to determine the order the creature goes on in combat.

Speed: How far the creature moves on the ground in a Move action. sometimes multiple values are given. The first unlabelled value is it's ground speed, while the otehrs are it's Speed in the manner the labels state. Flight is also listed with a Maneuverability that is the same as that for Vehicles, but the creature uses it's Balance skill instead of Piloting.

Defensive Class: The number required to hit the creature on a to-hit roll. This value is the same as for characters, and the modifiers that went into it are listed in parentheses after it.

Damage Reduction: How much Damage Reduction the creature has. If it has modifiers to a particular type of damage (such as bludgeoning), the modifiers are listed in parenthesis. Vulnerabilities that apply to Damage Reduction are also listed here in the format of Vulnerability (type +damage), for easy reference.

Energy Resistance: How much Energy Resistance the creature has. If it has modifiers to a particular type of energy damage (such as fire), the modifiers are listed in parenthesis. Vulnerabilities that apply to Energy Resistance are also listed here in the format of Vulnerability (type +damage), for easy reference.

Face/Reach: This is how much area the creature occupies in a square form, as well as how far it can reach to make melee attacks. For example a creature with "10 ft/ 15 ft" would occupy a square area 10 ft on a side, and can make melee attacks up to 15 ft away.

Base Attack/Grapple: What the creature's Base Attack bonus is, and what it's Grapple bonus is.

Attack: What attack modes the creature uses in combat. These are listed with the name of the weapon it attacks with, followed by it's attack bonus with the weapon, then with the damage a regular hit deals listed in parenthesis. For example a creature with "Slam +8 (1d6+3)" would attack by slamming part of it's body (typically a fist or limb), with a bonus of +8 to hit, and deals a base of 1d6+3 damage on a successful attack.

Full Attack: If the creature can get multiple attacks on a Full attack action, each attack is lists as a separate bonus divided by a "/", in the same manner as for Attack.

Special Qualities: Any special abilities or traits the creature has that cannot be used to harm others.

Special Attacks: Any special abilities or traits the creature has that can be used to harm others.

Ability Scores: The creature's ability score ratings: Strength (Str), Dexterity (Dex), Constitution (Con), Intelligence (Int), Wisdom (Wis), and Charisma (Cha). If they are modified, then the increased or decreased amount is listed in parenthesis. Modified

amounts are used to determine the creatures other statistics.

Saving Throws: The creature's saving throw *totals*: Fortitude (Fort), Reflex (Ref), and Will (Will).

Skills: The skills the creature possesses, and their totals. Ranks are not given.

Feats: The feats the creature possesses. Creatures get one feat for their first class level, and an additional feat every three class levels, under normal circumstances. Extra feats above this amount are bonus feats, and are listed with a "[b]" next tot hem to indicate so.

Cyberware: If the creature has any implanted cybernetics, this lists them.

Robotic Programs: If the creature uses any, they are listed here. The Ratings of each are in brackets next to the name of the program.

Organization: Many creatures travel in groups. When they do, the amount in each group and what the group is called is listed here. This is often a random amount.

Level Adjustment: If this creature where used to create a character, this is what the creature's Level Adjustment would be *before* altering it for Table 1-1: Character Creation Table.

Challenge Rating: What the creature's Challenge Rating is.

Physical Description

Not labeled in the actual descriptions, this section simply states what the things look like. It often also gives other information about them, such as their breeding methods, composition, typical goals, and languages usually known.

Tactics

How they fight. This section also covers general view of combat, as well as providing a description of how they tend to engage in it.

Special Abilities

This section describes all the Special Qualities and Special Attacks the creature has. it also provides information on what skill bonuses it might get from it's race, as well as it's racial skills.

Culture

For sentient or semi-sentient creatures, this section gives some information on the creatures society.

Looting

What one usually can scavenge of the creature that is worth scavenging, or what kinds of valuables it tends to carry around or stash.

Characters

If the creature has a Level Adjustment, this section is used. It gives the creature's Preferred Class, ability score adjustments, and any other relevant information that would be needed to make a character using it.

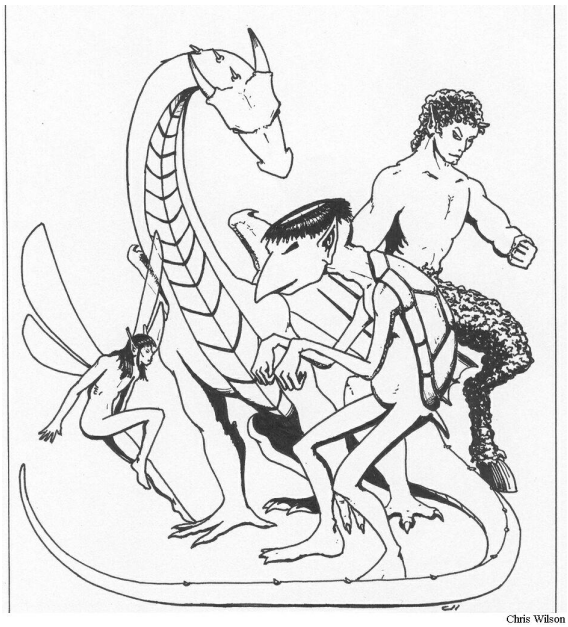
TEMPLATES

A Template is a set of modifications that a being can have prior to, or gained after, birth. They are divided into "Acquired" Templates and "Natural" Templates. Acquired Templates are gained only after a being has been exposed to whatever grants the template, such as conversion into a Necrol slave. Natural Templates are gained before the creature is born, such as the being created in vat by biological engineers. Many templates have requirements that must be met, similar to prestige classes (see "Prestige Classes" in Chapter 10: Character Advancement) that must be met before a being can take the template.

Templates modify several of a being's abilities, sometimes for the better and sometimes for the worse. These modifications are gained as soon s the Template is taken, unless it specifies otherwise. Templates also often come with there own Level Adjustment. This is covered in "Level Adjustments and High-Level Characters" in Chapter 12: Running the Game.

NANO SPECTRES

	Diminutive Construct (Magi)	Tiny Construct (Magi)	Small Construct (Magi)
Hit Points:	7	14	28
Initiative:	+3	+2	+1
Speed:	20 ft	20 ft	20 ft
Defensive Class:	17 (+3 Dex, +4 Size)	14 (+2 Dex, +2 Size)	12 (+1 Dex, +1 Size)
Damage Reduction:	2	4	6
Energy Resistance:	1	2	3
Face/Reach:	1 ft/0 ft	2.5 ft/0 ft	5 ft/5 ft
Base Attack/Grapple:	+1/-14	+1/-9	+1/4
Attack:	Slam +2 melee (1d4-3)	Slam +1 melee (1d4-2)	Slam +1 melee (1d4-1)
Full Attack:	Slam +2 melee (1d4-3)	Slam +1 melee (1d4-2)	Slam +1 melee (1d4-1)
Special Qualities:	low-light vision, biological immunity, telepathic immunity, EM vulnerability, short lifespan, improved uncanny dodge	low-light vision, biological immunity, telepathic immunity, EM vulnerability, short lifespan, improved uncanny dodge	low-light vision, biological immunity, telepathic immunity, EM vulnerability, short lifespan, improved uncanny dodge
Special Attacks:	None	None	None
Ability Scores:	Str 4, Dex 16, Con ---, Wis 6, Int 6, Cha ---	Str 6, Dex 14, Con ---, Wis 8, Int 8, Cha ---	Str 8, Dex 12, Con ---, Wis 10, Int 10, Cha ---
Saving Throws:	Fort +0, Ref +5, Will -2	Fort +1, Ref +3, Will -1	Fort +2, Ref +1, Will +0
Skills:	None	None	None
Feats:	None	None	None
Challenge Rating:	7	7	7



Chris Wilson

These creatures are facsimiles of mythological minions created by Magi using advanced and secretive nanotech machines. The nanites that form them are inherently unstable, and run down quickly. While they are active they obey the simplistic instructions of their maker, which he can transmit by secure radio communication if he has a Radio Communicator. See the description of Nano Spectre nanites in Chapter 7: Robots and Nano for more information.

Tactics

These creatures are actually the creation of bizarre and little-understood Magi technology. There is no room in their data systems for complex tactical analysis, or battle plans. Their fighting ability is limited to following one-word commands such as “attack”, “rend”, or “subdue”.

Special Abilities

EM Vulnerability: Nano Spectres are machines, not creatures. EM weapons and effects treat them as such. If a Nano Spectre malfunctions, it is destroyed.

Improved Uncanny Dodge: Nano Spectres use a high-speed distributed neural network and sensory array to perceive their surroundings and act upon what they perceive. This makes them immune to Flanking, flanking foes gain no bonuses for attacking a Nano Spectre.

Low-Light Vision: Nano Spectres can see twice as far in any lighting condition.

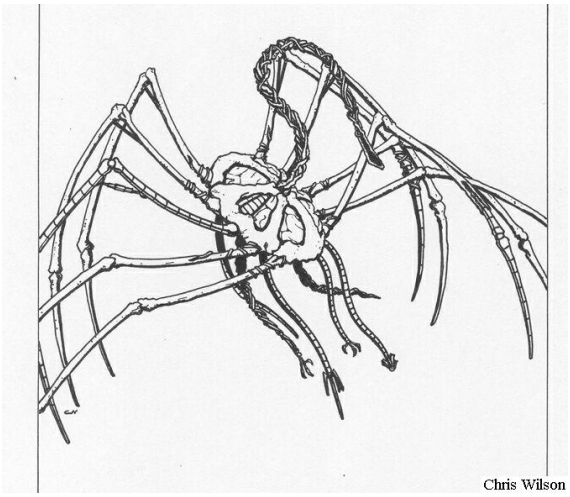
Nonliving: Nano Spectres have no real biology, despite what they may look like. This means they are immune to all poisons, diseases, and any agent designed to work only when a biological being or substance is involved. They are also immune to Ability Score damage or drain, and Fortitude saves that do not have to be made by inanimate objects.

Short Lifespan: Nano Spectres are unstable, highly so, because of the huge amounts of power required for them to *exist* let alone function! This causes their lifespan to me measured in combat rounds, and not very many of them either! They typically last only up to 2d6 rounds.

Telepathic Immunity: Nano Spectres are machines, not creatures. This makes them immune to Telepathy.

NECROL SPIDERS

	Haphazard Spider Diminutive Robot (Necrol)	Designed Spider Diminutive Robot (Necrol)	Manufactured Spider Diminutive Robot (Necrol)
Hit Points:	9	30	45
Vitality:	None	None	None
Initiative:	+2	+3	+3
Speed:	30 ft	30 ft	30 ft
Defensive Class:	16 (+2 Dex, +4 Size)	17 (+3 Dex, +4 Size)	17 (+3 Dex, +4 Size)
Damage Reduction:	1	2	4
Energy Resistance:	1	2	4
Face/Reach:	1 ft/0 ft	1 ft/0 ft	1 ft/0 ft
Base Attack/Grapple:	+2/-13	+2/-13	+2/-13
Attack:	Scalpel +8 melee (1d4+2)	Scalpel +9 melee (1d4+2)	Scalpel +9 melee (1d4+2)
Full Attack:	Scalpel +8 melee (1d4+2)	Scalpel +9 melee (1d4+2)	Scalpel +9 melee (1d4+2)
Special Qualities:	low-light vision, biological immunity, telepathic immunity, EM vulnerability, darkvision 20 ft, necrol tech, necrol conversion	low-light vision, biological immunity, telepathic immunity, EM vulnerability, darkvision 40 ft, necrol tech, necrol conversion	low-light vision, biological immunity, telepathic immunity, EM vulnerability, darkvision 60 ft, necrol tech, necrol conversion
Special Attacks:	Necrol Drugs, Necrol Nanites	Necrol Drugs, Necrol Nanites	Necrol Drugs, Necrol Nanites
Ability Scores:	Str 4, Dex 15, Con ---, Wis 9, Int 9, Cha 9	Str 4, Dex 16, Con ---, Wis 9, Int 9, Cha 9	Str 4, Dex 16, Con ---, Wis 9, Int 9, Cha 9
Saving Throws:	Fort +2, Ref +6, Will +1	Fort +2, Ref +7, Will +1	Fort +2, Ref +7, Will +1
Skills:	Balance +4, Craft (Lasers/Medical/ Nano/Robots) +11, Hide +6, Jump -1, Listen +5, Move Silently +6, Spot +5	Balance +5, Craft (Lasers/Medical/ Nano/Robots) +11, Hide +6, Jump -1, Listen +5, Move Silently +6, Spot +5	Balance +5, Craft (Lasers/Medical/ Nano/Robots) +11, Hide +6, Jump -1, Listen +5, Move Silently +6, Spot +5
Feats:	Alertness [b]	Alertness [b]	Alertness [b]
Robotic Chassis:	Q 2 PC (2 leg sets), Diminutive	Q 4 PC (2 leg sets), Diminutive	Q 6 PC (2 leg sets), Diminutive
Robotic Computer:	Quality 4	Quality 4	Quality 4
Robotic Options:	Built-In Device (Q10 Scalpel [Dagger]), Built-In Device (Q 10 Necrol Toolkit), Built-In Device (Q 2 Radio Communicator)	Built-In Device (Q10 Scalpel [Dagger]), Built-In Device (Q 10 Necrol Toolkit), Built-In Device (Q 2 Radio Communicator), Extra Dexterity +1, Heavier Armor +1	Built-In Device (Q10 Scalpel [Dagger]), Built-In Device (Q 10 Necrol Toolkit), Built-In Device (Q 2 Radio Communicator), Extra Dexterity +1, Heavier Armor +3
Robotic Programs:	Database [4], Robotic OS [4], Robotic Skill (Craft: Lasers 2 ranks) [4], Robotic Skill (Craft: Medical 2 ranks) [4], Robotic Skill (Craft: Nano 2 ranks) [4], Robotic Skill (Craft: Robots 2 ranks) [4], Schematic [4] Security rating 2 [4], Simple Weapons [2]		
Active Running Time:	15 hours	30 hours	45 hours
Robot Price:	6,120	7,820	11,720
Computer Price:	4,000	4,000	4,000
Organization:	Solitary or Gang (2-8)	Solitary or Gang (2-8)	Solitary or Gang (2-8)
Challenge Rating:	2 (includes +1 from Necrol Tech)	3 (includes +1 from Necrol Tech)	4 (includes +1 from Necrol Tech)



Chris Wilson

These are small cat-sized robots used by the Necrol as spies, builders, infiltrators, and close-quarters assault troops. They look like a thick ovoid body with five foot-long articulated legs on the left and right sides of the body. The top of the creature has a scalpel folded onto at the end of a long flexible snake-like arm that allows it to reach any angle within about 1 1/2 ft to attack, or wrap around like a tentacle. The underside contains a collection of six-inch tentacles each of which is tipped with some specialized tool, and the entirety of which is protected by a retractable near-hemisphere shell. their bodies look to have been either grown from living machines, or being made from pieces of living things implanted with machinery, or any mixture of the two. This is done by using their implanted nanites to reconstruct materials on a molecular level, in order to create appropriate substances for parts.

Necrol spiders come in types (haphazard, designed, manufactured), determined by the quality of the materials they are constructed from. It given proper materials a single Necrol spider can Craft another of it's same type or lower, but it requires two of one type to construct a single one of the next higher type.

Haphazard Necrol spiders are put together from the bodies of any living creature, and some raw metals and silicates. Their Chassis is made from reinforced bone, their guide wires from ligaments, and their Computers from the slats of nervous tissues and silicon. A single Diminutive creature, 1/10th lb of silicates, and 1/4th lb of

metals are all that is needed to make a single haphazard Necrol spider. Tiny creatures have enough mass to make two, Small creatures can be used to make four, Medium creatures can make eight, and so on. Yes, this means that given time the corpse of a single human being, two pounds of metal, and almost a pound of silicates can be used by one Necrol spider to make *eight* more!

Designed Necrol spiders are made from mostly machinery, with Computers made from the salts of nervous tissues and silicon. They appear to be mostly made from bits of other machines, stretched and molded perversely. A single living creature's nerve tissue can provide enough material for one Necrol spider for every 20 lbs of the creature's weight, and only another three pounds of manufactured machinery and electronics are required for raw materials to Craft a designed Necrol spider.

Manufactured Necrol spiders are made entirely from custom-designed components, grown in pools of nanite solution. They are have an oily shine and a disturbingly grown appearance. It takes the same amount of materials to build them as it does for a designed Necrol spider, but they are primarily grown in shallow pools of nanite solution exuded by designed Necro spiders.

Tactics

While scary, Necrol Spiders know they are not particularly difficult to kill. They try to avoid combat unless they are attacking an unarmed or weakened opponent, can attack from surprise, or can attack en masse. Whenever possible, they observe targets for extended periods of time before attacking, gathering data. Their primary functions are to maintain and construct other Necrol creatures and facilities, so they are often found while executing those duties. In any case, they prefer to in order to incapacitate, so that they can use Necrol Conversion. The only time they will attack without regard for their own safety is when an important Necrol creature or location is in danger.

Special Abilities

Necrol Tech: Being a Necrol creature, it gets the Alertness feat as a bonus feat, and can Craft or Repair devices with the Necrol descriptor. It's internal maintenance nanites also allow it to regain it's Quality in Hit Points every day, provided there is an adequate supply of materials to replace missing parts, and it has not been reduced to negative Hit Points. Once a Necrol creature is reduced to negative Hit Points it's nanites die off, and it can neither repair itself nor be repaired except by another Necrol creature that can transfer fresh nanites into it. These same nanites allow it to recharge itself off of environmental heat, light, or microwave transmissions. Every hour spent in the presence of a strong source of any of these provides enough energy for two hours of operation. The remarkable energy retention and efficiency of Necrol technology allows Necrol spiders to run *thirty times* as long as other robots!

Nonliving: Necrol spiders have no real biology, despite what they may look like. This means they are immune to all poisons, diseases, and any agent designed to work only when a biological being or substance is involved. They are also immune to Ability Score damage or drain, and Fortitude saves that do not have to be made by inanimate objects.

Darkvision: Necrol spiders have more wide-ranging sensors than regular creatures, which gives them Darkvision out to a range of 10 ft x Quality.

EM Vulnerability: Necrol spiders are machines, not creatures. EM weapons and effects treat them as such. If a Necrol spider malfunctions, it is destroyed.

Low-Light Vision: Necrol spiders can see twice as far in any lighting condition.

Necrol Conversion: If the Necrol spider comes across a living creature fully infested with Necrol nanites that is helpless, but alive, it can turn it into a Necrol slave (see template). This requires that it open the creature's skull to reach it's brain, and then implant the core processor of a Necrol spider as well as the circuits for a basic Quality 1 Radio Communicator. These are implanted in a solution of programmed Necrol nanites that quickly link the two devices to the host's infested nervous system. The infested nerve tissue is then used as a combination radio antennae (which doubles the range of the Radio Communicator) and auxiliary processing center (which allows the controlling computer to access all of the slave's memories, skills, and feats). It takes 1d6 rounds to finish the implantation, and another 2d6 rounds for the victim to turn into a Necrol slave. During the conversion time their entire nervous system shuts down to be reconnected, and they can be easily confused for dead (Heal DC 25 check to notice otherwise).

Necrol Drugs: Necrol spiders contain up to 10 doses of Quality 2 sedatives, which can be delivered either by injection from their Necrol Tools, or their scalpel can be coated as a move-equivalent action to deliver the injection if their next successful attack penetrates the target's armor. This sedative also contains a slightly radioactive marker that deals no Radiation damage, but that transmits a radio-wave homing signal when it bonds to water (such as in a victim's bloodstream). This homing beacon is detectible out to a distance of 10 times the range of the detecting Radio Communicator. The radio-wave emitting portion of the drug breaks down after three hours. This makes it easier to hunt down something that has been attacked, but escaped.

Necrol Nanites: Necrol nanites are Quality 10 Macrospcopic Supermolecule Assemblies that are capable of a dizzying array of functions, recharge off of a variety of EM radiation, can crawl about on their own, and can even replicate themselves if given the proper instructions by a Necrol creature. All Necrol contain these nanites in one function or another, leading some scholars to theorize that the nanites might actually be the original base life-form of the Necrol race. When outside of a Necrol creature, the nanites revert to their base programming: crawl towards the nearest source of non-Necrol electromagnetic fields and attach to any protein that is conducting electricity, disrupting the flow of electricity along the protein.

A creature that comes into contact with Necrol nanites must succeed in a Fortitude save against a DC of 30. If successful, then the nanites have been killed off before they could bond to the nerves. If failed, then the

nanites have attached themselves, and start replicating until the entire creature's nervous system has been infested. Once infested the creature has a -1 penalty to it's Dexterity, Intelligence, Wisdom ability scores. Every 1d6 rounds thereafter they get another Fortitude save to stave off (but not halt) the spread of the Necrol Nanites through their entire nervous system. Each failed save increases the penalty to their ability scores by another point, until it reaches the maximum of -4. Once it has gone that high, the creature is fully infested.

At this point the nanites use the stolen electrical energy to begin broadcasting a homing beacon similar to the one sent out by the Necrol Drugs, but with no time limit. This enables infested individuals to be tracked down by Necrol spiders for easier capture and conversion.

Necrol spiders can inject these nanites into a living creature, or eject them from their Necrol Toolkit in order to infect a living creature that is unaware of their presence. Necrol nanites are hard to reproduce, and are not used in this manner often as doing so robs the Necrol Spider of the ability to regenerate damage and recharge itself for five days.

Telepathic Immunity: Necrol spiders are machines, not creatures. This makes them immune to Telepathy.

Culture

Necrol spiders are the skilled craftsmen and infiltrators of the Necrol. They operate only within the control of a Necrol Intelligence, or when they have a very specifically defined objective. They are not interested in art, money, or conversation, only in fulfilling their function.

Looting

A destroyed Necrol Spider is worth 1/10th it's Robot Price and 1/100th it's Computer Price in raw materials. This might be difficult to come by, as it will probably be infested with Necrol Nanites.

APPENDIX: DEFINITIONS

ABILITY SCORE
Six characteristics that define the basic physical and mental ability of any creature, biological or mechanical. A high ability score indicates increasing capability in all things that ability score represents, a lower one indicates increasing ineptitude. The base ability score is 10-11, which has no modifier. the six ability scores are:

Charisma: The being's force of personality and sense of self-identity. It measures how well they can get along with others, and how well they can make others see their points of view, or get them to behave in a manner they desire. Many creatures have no personality to speak of, often robots and other programmed creatures, and are therefore immune to persuasion as well as lack the ability to persuade others. A Charisma of less than 1 means the being is incapable of independent action of any sort, and must be commanded to perform even the simplest tasks.

Constitution: The being's biological health and resiliency. It measures how healthy they are, and how much punishment they can withstand. Robots and other similar beings, even though they are creatures, are not biological and therefore do not have any Constitution. A Constitution of less than 1 means the beings is...dead!

Dexterity: Overall physical coordination and agility. It measures how swift and accurate the being's movements and reflexes are. A Dexterity of less than 1 means the being is paralyzed, incapable of movement.

Intelligence: Mental acuity and ability to reason. it measures the strength of a being's mind, and whether or not it is sentient. Beings with an Intelligence of 2 are capable of some learned responses, but are not sentient. Those with an Intelligence of 1 can be trained to perform a few simple tasks, but are beasts in all respects. Those with an Intelligence of 0 are incapable of any act that is not instinctual. Even though robots have an Intelligence score, they are typically incapable of independent thought and are therefore not sentient.

Strength: The measure of a creature's muscle powers, how much physical force their body can exert. It measures a being's ability to deal damage in melee combat, and their ability to deal with both carrying heavy objects and using heavy weapons. A Strength of less than 1 means the being cannot move at all, and is effectively paralyzed.

Wisdom: A being's ability to perceive their surroundings, and separate themselves in an intellectual capacity from outside forces. It measures their perception and self-control. A being with a Wisdom of less than 1 is insensile, and unable to take any action.

Ability Score Modifier: This is a number applied to all checks that either use that ability score for their basis, or rely heavily upon it. It is often referred to as the "mod". This modifier is gained from the following table:

Ability Score	Modifier	Ability Score	Modifier
1	-5	12-13	+1
2-3	-4	14-15	+2
4-5	-3	16-17	+3
6-7	-2	18-19	+4
8-9	-1	20-21	+5
10-11	+0	Every +2 more	+1 extra

AUTOFIRE (Technological)
An autofire weapon is capable of firing multiple rounds in rapid succession, on one burst (an attack roll). Each round after the first uses the previous round's attack roll -5 for it's own attack roll. If the result of a round's attack roll would not equal the target's Defensive Class, then that round misses. Extra damage from a high attack roll for each round is determined based only on the *that round's* attack roll! Situational modifiers for the Point Blank Shot feat, firing into melee, or firing at a target with cover are figured individually for each round.

Autofire weapons have a selector switch which can be adjusted as a move-equivalent action (or a free action if using a Cybersight). This selector is numbered from 1 to 4. The weapon will not fire more rounds on a single burst than the selector switch is set to. All shots from the burst must normally be aimed at the same target.

If the user has the Autofire feat, than each of the weapon's additional rounds in a burst has an attack roll equal to the previous round's -3, instead of -5. The user still cannot fire more than four rounds in a single burst. The user can "spray fire" across multiple targets by declaring his targets before he rolls, and the order in which he is resolving them. He then gets to apply each round from the first to the last to each target in the order he declared them. Every 10 ft of space between the targets (from the attacker's perspective) counts as a target, and a round must be wasted using sprayed fire across that space.

BIOLOGICAL IMMUNITY
This being or item has no real biology to speak of. It might be totally technological, based on energy, or something else entirely. The end result is the same: it is absolutely immune to any effect that requires a working biology or anatomy. This means it takes no special damage effects (or has it's own). It also is immune to disease and poison of all types, including those introduced by nanites. All items, robots, and vehicles have this ability by default, unless they state otherwise (such as Orliss seed-items).

BLIND SPOT
The area around a creature that they cannot see, and therefore cannot make attacks into, or adequately defend themselves from. See also "Facing".

BLINDSIGHT AND BLINDSENSE
Some creatures have blindsight, the extraordinary ability to use a nonvisual sense (or a combination of such senses) to operate effectively without vision. Such sense may include sensitivity to vibrations, acute scent, keen hearing, or echolocation. This ability makes invisibility and concealment (even fog and smoke grenades) irrelevant to the creature (though this ability cannot detect incorporeal creatures). This ability operates out to a range specified in the creature description.

- Blindsight never allows a creature to distinguish color or visual contrast. A creature cannot read with blindsight.
- Blinding attacks do not penalize creatures using blindsight.
- Deafening attacks thwart blindsight if it relies on hearing.
- Blindsight works underwater but not in a vacuum.
- Blindsight negates displacement and blur effects.

Blindsense: Other creatures have blindsense, a lesser ability that lets the creature notice things it cannot see, but without the precision of blindsight. The creature with blindsense usually does not need to make Spot or Listen checks to notice and locate creatures within range of its blindsense ability, provided that it has line of effect to that creature. Any opponent the creature cannot see has total concealment (50% miss chance) against the creature with blindsense, and the blindsensing creature still has the normal miss chance when attacking foes that have concealment. Visibility still affects the movement of a creature with blindsense. A creature with blindsense is still denied its Dexterity bonus to Defensive Class against attacks from creatures it cannot see.

COLD IMMUNITY
A creature with cold immunity never takes cold damage. It has vulnerability to fire, which means it takes half again as much (+50%) damage as normal from fire, regardless of whether a saving throw is allowed, or if the save is a success or failure.

COMPLEXITY
This is an indicator of an object's overall technological advancement. It includes elements such as degree of miniaturization, amount of individual components, degree of refined materials, and total amount of technology required to construct it. As a rule of thumb, the more complex a thing is, the less damage it takes to render it non-functional or even destroyed (non-repairable).

CYBERWARE (Technological)
An implanted machine, biological or mechanical, that either augments the implanted creature's natural abilities or grants a new ability. Their presence inside a living body is not natural, and can be hazardous. See Stress.

DAMAGE REDUCTION
Some creatures have the ability to ignore blows altogether as though they were invulnerable, or at least to reduce the damage they take, as do most objects and other creatures in armor.

If a creature has damage reduction from more than one source, the two forms of damage reduction stack. This is most often the case with beings that are wearing armor in addition to having natural damage reduction, or damage reduction gained from cybernetics.

DAMAGE THRESHOLD
The number of times that the armor can be penetrated before it starts to lose defensive value. Keep track of the total amount of times the armor is penetrated, every multiple of this value the armor's Damage Reduction and Energy Resistance are each reduced by one point. Armor can also be attacked directly in combat (called "Sundering Armor" and it provokes an attack of opportunity), with the armor's Energy Reduction and Damage Resistance only counting half as much, with any damage that bypasses these reduced values being applied point-for-point as counts against it's Damage Threshold! Once either value is reduced to zero, the armor is destroyed and unusable (10% of the purchase price can be scrounged together as armor-making materials). Any time before this, the count towards it's Damage Threshold can be reduced by a Repair check.

DARKVISION
Darkvision is the extraordinary ability to see with no light source at all, out to a range specified for the creature. Darkvision is black and white only (colors cannot be discerned). It does not allow characters to see anything that they could not see otherwise—invisible objects are still invisible. Likewise, darkvision is also blocked by opaque gasses and transparent liquids or solids. The presence of light does not spoil darkvision.

Heat Based: Darkvision can be based on emanation of heat energy. This form still does not provide normal color information, but the shades of emitted heat from things within range allows the user to tell something's temperature relative to it's environment. Strong heat sources past the regular Darkvision range can still be seen, but their outlines will be blurred and indistinct (50% miss chance). This version of Darkvision also makes normally Invisible targets have only Concealment (50% miss chance becomes 20% miss chance), and normally Concealed targets are treated as if they where fully visible.

DEATH LEVEL
Different creatures have differing amounts of damage they need to take before the physical trauma finally causes them to die. This is represented by their Death Level. The Death Level is how far below 0 their current Hit Points have to go before they die, any amount of negative Hit Points greater than their Death Level just leaves them in *shock*. The Death Level of a creature is based on it's Size category, as shown on the table below:

Size Category	Death Level	Size Category	Death Level
Fine	-0	Large	-15
Diminutive	-2	Huge	-25
Tiny	-5	Gargantuan	-50
Small	-8	Colossal	-100
Medium	-10		

DEFENSIVE CLASS
The measure of how hard it is to hit somebody or something in combat. This starts at a base of 10, and can be increased or decreased by such factors as Dexterity modifier, awareness of the attack, size category, and more. The typical being's Defensive Class equals 10 + it's Dexterity modifier + it's Size Category modifier.

DISEASE
When a character is injured by a contaminated attack touches an item smeared with diseased matter, or consumes disease-tainted food or drink, he must make an immediate Fortitude saving throw. If he succeeds, the disease has no effect—his immune system fought off the infection. If he fails, he takes damage after an incubation period. Once per day afterward, he must make a successful Fortitude saving throw to avoid repeated damage. Two successful saving throws in a row indicate that he has fought off the disease and recovers, taking no more damage.

These Fortitude saving throws can be rolled secretly so that the player doesn't know whether the disease has taken hold.

EM IMMUNITY
The creature or object with this quality cannot be damaged or rendered non-functional by electromagnetic pulse weaponry or effects. Most biological beings, and any item of no greater than Basic Complexity, have this quality automatically. It is only ever really listed in the descriptions of creatures or objects that would normally be affected by such devices, showing that they have been shielded against EM effects.

ENCUMBRANCE
A creature can only carry so much weight before the sheer amount of mass begins to impede their movements, and exhausts them. In a gravity of 1g, a Medium size creature can carry up to 4 x Strength in pounds of weight before being encumbered. This is referred to as their "Light Encumbrance Limit". Every multiple of the creature's Strength beyond this, or part thereof, imposes a cumulative -1 penalty on their Dexterity. Every -2 penalty to Dexterity from encumbrance also reduces the being's Speed by 5 ft., to a minimum of 5 ft.

Creatures smaller or larger than Medium size have modifiers to their Encumbrance limits.

ENERGY RESISTANCE
Beings with this ability, usually granted by armor, reduce the amount of damage they take from energy-based damage sources. This includes heat, cold, electricity, and radiation damage. Energy resistance can also be specific to one of these types of energy, "Fire Resistance" for instance.

ENERGY DRAIN (Supernatural)
A creature with this method of attack can consume part of the soul of any creature it hits with its natural weapons. If it has no natural weapons, or decides not to use them, an unarmed attack will do. It need not use this ability if it chooses not to.

A creature that has been exposed to an Energy Drain attack must make a Fortitude save against a DC equal to the 10 + the attacker's Charisma modifier + half the attacker's Class Level. If they fail, then they gain a Negative Level.

Creatures with the Energy Drain ability get a bonus to their saving throws to resist acquiring a Negative Level, or losing a Class Level, equal to half the DC of their own Energy Drain ability.

EVASION AND IMPROVED EVASION
These extraordinary abilities allow the target of an area attack to leap or twist out of the way.

If subjected to an attack that allows a Reflex save for half damage, a character with evasion takes no damage on a successful save.

As with a Reflex save for any creature, a character must have room to move in order to evade. A bound character or one squeezing through an area cannot use evasion.

As with a Reflex save for any creature, evasion is a reflexive ability. The character need not know that the attack is coming to use evasion.

Characters cannot use evasion in medium or heavy armor. Some creatures with the evasion ability as an innate quality do not have this limitation.

Improved evasion is like evasion, except that even on a failed saving throw the character takes only half damage.

FACING
A creature has a blind spot that describes a 180 degree arc. This effect is known as their "facing". Attacks cannot be made, even attacks of opportunity, into the blind spot, and attacks on them from that area ignore their Dexterity modifier to their Defensive Class.

FAST HEALING
A creature with fast healing has the extraordinary ability to regain Hit Points at an exceptional rate. Except for what is noted here, fast healing is like natural healing.

At the beginning of each of the creature's turns, it heals a certain number of Hit Points (defined in its description).

A creature that has taken both Hit Point and Vitality damage heals only the Hit Point damage.

Fast healing does not restore Hit Points lost from starvation, thirst, or suffocation.

FEAR
Psionics, horrifying scenes, and certain monsters can affect characters with fear. In most cases, the character makes a Will saving throw to resist this effect, and a failed roll means that the character is shaken, frightened, or panicked.

Shaken: Characters who are shaken take a –2 penalty on attack rolls, saving throws, skill checks, and ability checks.

Frightened: Characters who are frightened are shaken, and in addition they flee from the source of their fear as quickly as they can. They can choose the path of their flight. Other than that stipulation, once they are out of sight (or hearing) of the source of their fear, they can act as they want. However, if the duration of their fear continues, characters can be forced to flee once more if the source of their fear presents itself again. Characters unable to flee can fight (though they are still shaken).

Panicked: Characters who are panicked are shaken, and they run away from the source of their fear as quickly as they can. Other than running away from the source, their path is random. They flee from all other dangers that confront them rather than facing those dangers. Panicked characters cower if they are prevented from fleeing.

Becoming Even More Fearful: Fear effects are cumulative. A shaken character who is made shaken again becomes frightened, and a shaken character who is made frightened becomes panicked instead. A frightened character who is made shaken or frightened becomes panicked instead.

FIRE IMMUNITY
A creature with fire immunity never takes fire damage. It has vulnerability to cold, which means it takes half again as much (+50%) damage as normal from cold, regardless of whether a saving throw is allowed, or if the save is a success or failure.

HIT POINTS
An indicator of how much damage a creature or object can withstand. For creatures, this represents how much physical damage they can take before dropping into Shock, and eventually death. When your Hit Point total reaches 0, you're in *shock*. When it reaches -1, you're dying. When it gets to your Death Level, you're dead. For objects this represents how much physical damage it takes to render it non-functional, or even destroyed.

INCORPOREAL (Supernatural)
Holograms and a few creatures lack physical bodies. Such creatures are insubstantial and can't be touched by matter or energy. Likewise, they cannot manipulate objects or exert physical force on objects. However, incorporeal beings have a tangible presence that sometimes seems like a physical attack against a corporeal creature.

Incorporeal creatures are present on the same level of existence as the characters, and characters have some chance to affect them. This could be because they are comprised of energy, and are immune to effects that are not based on similar principles, or because their bodies are phasing through the matter around them.

Incorporeal creatures can be harmed only by other incorporeal creatures of the same type, by psionics, or by effects that can affect their type of incorporeal. They are immune to all other attack and damage forms.

Incorporeal creatures are immune to damage effects, extra damage from a high to-hit roll, and special damage conditions. They move in any direction (including up or down) at will. They do not need to walk on the ground. They can pass through solid objects at will, although they cannot see when their eyes are within solid matter.

Incorporeal creatures hiding inside solid objects get a +2 circumstance bonus on Listen checks, because solid objects carry sound well. Pinpointing an opponent from inside a solid object uses the same rules as pinpointing invisible opponents (see Invisibility, below).

Incorporeal creatures are inaudible unless they decide to make noise.

The physical attacks of incorporeal creatures ignore material armor, even PK Shields, unless it is a phasing incorporeal creature (in which case PK Shields affect it).

Incorporeal creatures pass through and operate in water as easily as they do in air.

Incorporeal creatures cannot fall or take falling damage.

Corporeal creatures cannot trip or grapple incorporeal creatures.

Incorporeal creatures have no weight and do not set off traps that are triggered by weight.

Incorporeal creatures do not leave footprints, have no scent, and make no noise unless they manifest, and even then they only make noise intentionally.

Phasing: A type of incorporeality in which the being does have a physical existence, but it's molecules can pass through the

molecules of other matter. Unlike most incorporeal beings, it is susceptible to fire and electrical damage.

INVISIBILITY
The ability to move about unseen is not foolproof. While they can't be seen, invisible creatures can be heard, smelled, or felt. Invisibility makes a creature undetectable by vision, including darkvision.

Invisibility does not, by itself, make a creature immune to attacks, but it does make the creature immune to extra damage from a high to-hit roll.

A creature can generally notice the presence of an active invisible creature within 30 feet with a DC 20 Spot check. The observer gains a hunch that "something's there" but can't see it or target it accurately with an attack. A creature who is holding still is very hard to notice (DC 30). An inanimate object, an unliving creature holding still, or a completely immobile creature is even harder to spot (DC 40). It's practically impossible (+20 DC) to pinpoint an invisible creature's location with a Spot check, and even if a character succeeds on such a check, the invisible creature still benefits from total concealment (50% miss chance).

A creature can use hearing to find an invisible creature. A character can make a Listen check for this purpose as a free action each round. A Listen check result at least equal to the invisible creature's Move Silently check result reveals its presence. (A creature with no ranks in Move Silently makes a Move Silently check as a Dexterity check to which an armor check penalty applies.) A successful check lets a character hear an invisible creature "over there somewhere." It's practically impossible to pinpoint the location of an invisible creature. A Listen check that beats the DC by 20 pinpoints the invisible creature's location.

Listen Check DCs to Detect Invisible Creatures

Invisible Creature Is . . .	DC
In combat or speaking	0
Moving at half speed	Move Silently check result
Moving at full speed	Move Silently check result –4
Running or charging	Move Silently check result –20
Some distance away	+1 per 10 feet
Behind an obstacle (door)	+5
Behind an obstacle (stone wall)	+15

A creature can grope about to find an invisible creature. A character can make a touch attack with his hands or a weapon into two adjacent 5-foot squares using a standard action. If an invisible target is in the designated area, there is a 50% miss chance on the touch attack. If successful, the groping character deals no damage but has successfully pinpointed the invisible creature's current location. (If the invisible creature moves, its location, obviously, is once again unknown.)

If an invisible creature strikes a character, the character struck still knows the location of the creature that struck him (until, of course, the invisible creature moves). The only exception is if the invisible creature has a reach greater than 5 feet. In this case, the struck character knows the general location of the creature but has not pinpointed the exact location.

If a character tries to attack an invisible creature whose location he has pinpointed, he attacks normally, but the invisible creature still benefits from full concealment (and thus a 50% miss chance). A particularly large and slow creature might get a smaller miss chance.

If a character tries to attack an invisible creature whose location he has not pinpointed, have the player choose the space where the character will direct the attack. If the invisible creature is there, conduct the attack normally. If the enemy's not there, roll the miss chance as if it were there, don't let the player see the result, and tell him that the character has missed. That way the player doesn't know whether the attack missed because the enemy's not there or because you successfully rolled the miss chance.

If an invisible character picks up a visible object, the object remains visible. One could coat an invisible object with flour to at least keep track of its position (until the flour fell off or blew away). An invisible creature can pick up a small visible item and hide it on his person (tucked in a pocket or behind a cloak) and render it effectively invisible.

Invisible creatures leave tracks. They can be tracked normally. Footprints in sand, mud, or other soft surfaces can give enemies clues to an invisible creature's location.

An invisible creature in the water displaces water, revealing its location. The invisible creature, however, is still hard to see and benefits from concealment.

A creature with the scent ability can detect an invisible creature as it would a visible one.

A creature with the Blind-Fight feat has a better chance to hit an invisible creature. Roll the miss chance twice, and he misses only if both rolls indicate a miss. (Alternatively, make one 25% miss chance roll rather than two 50% miss chance rolls.)

A creature with blindsight can attack (and otherwise interact with) creatures regardless of invisibility.

An light source still gives off light.

Incorporeal creatures are often invisible. Scent, Blind-Fight, and blindsight don't help creatures find or attack invisible, incorporeal creatures, but Spot checks and possibly Listen checks can help.

Since some creatures can detect or even see invisible creatures, it is helpful to be able to hide even when invisible.

LEVEL ADJUSTMENT
A modifier applied to a creature's Character Level or Challenge Rating in order to alter it to reflect them having a different level of power than is indicated by their original Character Level or Challenge Rating.

LOAD BEARING
This trait indicates that a creature is capable of carrying loads in excess of it's normal Encumbrance limits.

MAGI
A showman, typically human, who uses technology and innovation to mimic the effects of magic.

OPTION
In the technology system Dead Stars uses, this refers to a modification to an item that can be taken in order to improve one or more of it's characteristics, or give it a new one. Each item has a maximum amount of points worth of Options it can take, based on it's type. Options also increase the item's final price, by modifying it by a percentage. Add up all the percentage modifiers for an item's Options, then apply the total in order to find the item's final price.

PARALYSIS
Some monsters and poisons can paralyze their victims, immobilizing them. (Paralysis from toxins is discussed in the Poison section below.)

A paralyzed character cannot move, speak, or take any physical action. He is rooted to the spot, frozen and helpless. Not even friends can move his limbs. He may take purely mental actions, such as casting a spell with no components.

A winged creature flying in the air at the time that it becomes paralyzed cannot flap its wings and falls. A swimmer can't swim and may drown.

PSIONICS
The ability to create macro-scale alterations in physical reality by means of quantum-level alterations. The alterations this allows are powerful, but not very sophisticated. A psionic character could move a suit of armor, but is incapable of altering anything they cannot perceive or envision. This, among other things, limits

them to only making obvious and simplistic changes to things. They are still bound by the laws of physics, but have managed to find "loopholes" in them that seem to defy many conventional laws of physics.

POISON
Materials and substances whose chemical nature can cause debilitating, and even lethal, effects. They must either be inhaled, ingested, injected, or even touched in order to have any effect. Once they have managed to enter a living creature's body, the length of time before their effects are felt and what those effects are vary from one poison to another. Many poisons are hazardous to only one type, or even species, of creature, while others have effects that vary from one type of creature to another. Their effects can be mitigated or eliminated by a successful Fortitude save. Poison that is biologically produced by a creature is called "venom" and it has all the characteristics of a poison, except that the creature that produced it is immune to it.

QUALITY
A measure of the worth and merit of the goods and design that went into an object's construction. The lowest an item's Quality can be is 1, which represents something slopped together in a dirty room out of whatever could be scavenged. The highest an item's Quality can be in an advanced space-faring culture is 10, which represents something assembled molecule by molecule by nanites, constantly being tweaked by a skilled technician. Less technologically advanced cultures have lower maximum Quality.

RADIATION (Technological)
Radiation is emitted energy, either in the form of a wave or an excited particle, that penetrates matter and causes damage by disruption. While technically this definition fits both fire/heat and electricity, those types of damage do not have the side-effects that gamma rays and neutrons do. So for purposes of this definition "radiation" *does not* include fire/heat or electricity.

RESISTANCE TO ENERGY
A creature with resistance to energy has the ability to ignore some damage of a certain type each round, but it does not have total immunity.

Each resistance ability is defined by what energy type it resists and how many points of damage are resisted. It doesn't matter what source the damage is from.

When resistance completely negates the damage from an energy attack, the attack does not break concentration, and therefore does not prevent a psionic power from being activated. All forms of energy resistance stack, such as that gained from special abilities and from armor.

SCENT
This extraordinary ability lets a creature detect approaching enemies, sniff out hidden foes, and track by sense of smell.

A creature with the scent ability can detect opponents by sense of smell, generally within 30 feet. If the opponent is upwind, the range is 60 feet. If it is downwind, the range is 15 feet. Strong scents, such as smoke or rotting garbage, can be detected at twice the ranges noted above. Overpowering scents, such as skunk musk or troglodyte stench, can be detected at three times these ranges.

The creature detects another creature's presence but not its specific location. Noting the direction of the scent is a move action. If it moves within 5 feet of the scent's source, the creature can pinpoint that source.

A creature with the Track feat and the scent ability can follow tracks by smell, making a Wisdom check to find or follow a track. The typical DC for a fresh trail is 10. The DC increases or decreases depending on how strong the quarry's odor is, the number of creatures, and the age of the trail. For each hour that the trail is cold, the DC increases by 2. The ability otherwise follows the rules for the Track feat. Creatures tracking by scent ignore the effects of surface conditions and poor visibility.

Creatures with the scent ability can identify familiar odors just as humans do familiar sights.

Water, particularly running water, ruins a trail for air-breathing creatures. Water-breathing creatures that have the scent ability, however, can use it in the water easily.

False, powerful odors can easily mask other scents. The presence of such an odor completely spoils the ability to properly detect or identify creatures, and the base Survival DC to track becomes 20 rather than 10.

SIZE CATEGORY
A creature or object's relative size in comparison to a typical human being. This measurement is used to quantify many changes in a thing's characteristics according to it's size. Being large or smaller than Medium size alters how easy or hard it is for the thing to engage in Grapple attacks, modifies it's Defensive Class, and it's To-Hit rolls.

SPECIAL DAMAGE
A type of damage that can result from a particularly lucky or skilled attack in combat. While these attacks do not typically deal additional damage, they can impose a specific condition or circumstance on the being attacked that is hazardous to that being. Only beings with easily defined anatomies are susceptible to Special Damage. Those without such anatomies (such as many artificial creatures and gelatinous races), are immune to Special Damage.

Special Damage can also be sued as a descriptor for a damage modifier that depend on anatomy. A being immune to Special Damage is also immune to these damage modifiers.

STRESS
The amount of strain a living creature's biology is under due to the presence of Cybernetic implants. A character cannot have more Stress points worth of Cybernetics than they have Constitution score. At least not safely.

TECHNOLOGY LEVEL
An indicator of the amount of industrialization and scientific knowledge that a society or race possesses. This is mainly used to refer to the Complexity of the items they can create, as well as any modifiers they must use, or have the option of using.

For instance: a Culture might only be capable of Average Complexity items, but their medicine might be produced at half-cost. This would make their Technology Level "Average (1/2 Cost Medicine)".

TEMPLATE
A set of modifications to a being that results in a new type of being. They often alter abilities, sometimes not beneficially, and have an associated Level Adjustment.

TREMORSENSE
A creature with tremorsense automatically senses the location of anything that is in contact with the ground and within range.

If no straight path exists through the ground from the creature to those that it's sensing, then the range defines the maximum distance of the shortest indirect path. It must itself be in contact with the ground, and the creatures must be moving.

As long as the other creatures are taking physical actions, including casting spells with somatic components, they're considered moving; they don't have to move from place to place for a creature with tremorsense to detect them.

VITALITY
A measure of a living creature's energy reserves, both mental and biological. A high Vitality score means the being does not get fatigued easily, and has allot of stamina. Like Hit Points, Vitality can be lost.

VULNERABILITY
Some creatures are especially allergic to the contact of some substances or types of items and energies. This is shown by giving them Vulnerabilities. Attacks from weapons that are made of their Vulnerability deal extra damage, as does simple contact to their Vulnerability. In creature descriptions, these are listed as "Vulnerability (type +damage)" in the Damage Reduction or Energy Resistance entry.

CONDITIONS

If more than one condition affects a character, apply them all. If certain effects can't combine, apply the most severe effect.

ABILITY DAMAGED
The character has temporarily lost 1 or more ability score points. Lost points return at a rate of 1 per day unless noted otherwise by the condition dealing the damage. A character with Strength 0 falls to the ground and is helpless. A character with Dexterity 0 is paralyzed. A character with Constitution 0 is dead. A character with Intelligence, Wisdom, or Charisma 0 is unconscious. If an ability score other than Constitution receives more damage than its rating, the excess damage is applied to Constitution! Ability damage is different from penalties to ability scores, which go away when the conditions causing them go away. Every two points of ability score damage to the same ability score cause that ability score's modifier to drop by 1.

ABILITY DRAINED
The character has permanently lost 1 or more ability score points. The character can regain these points only through medical means. A character with Strength 0 falls to the ground and is helpless. A character with Dexterity 0 is paralyzed. A character with Constitution 0 is dead. A character with Intelligence, Wisdom, or Charisma 0 is unconscious and comatose. This modifier is applied directly to the base score, and is not recorded on the "damage" line. It actually alters the base score directly. Only medical attention can heal ability score that has been drained.

BLINDED
The character cannot see. He takes a –2 penalty to Defensive Class, loses his Dexterity bonus to Defensive Class(if any), moves at half speed, and takes a –4 penalty on Search checks and on most Strength- and Dexterity-based skill checks. All checks and activities that rely on vision (such as reading and Spot checks) automatically fail. All opponents are considered to have total concealment (50% miss chance) to the *blinded* character. Characters who remain blinded for a long time grow accustomed to these drawbacks and can overcome some of them. After a year of being blind, such characters can purchase the Blind-Fight feat in addition to the normal amount of feats they are allowed.

BLOWN AWAY
Depending on its size, a creature can be blown away by winds of high velocity. A creature on the ground that is blown away is knocked down and rolls 1d4 x 10 feet, taking 1d4 points of Vitality damage per 10 feet. A flying creature that is blown away is blown back 2d6 x 10 feet and takes 2d6 points of Vitality damage due to battering and buffering.

CHECKED
Prevented from achieving forward motion by an applied force, such as wind. Checked creatures on the ground merely stop. Checked flying creatures move back a distance specified in the description of the effect.

CONFUSED
A *confused* character's actions are determined by rolling d% at the beginning of his turn: 01–10, attack caster with melee or ranged weapons (or close with caster if attacking is not possible); 11–20, act normally; 21–50, do nothing but babble incoherently; 51–70, flee away from caster at top possible speed; 71–100, attack nearest creature (for this purpose, a familiar counts as part of the subject's self). A *confused* character who can't carry out the indicated action does nothing but babble incoherently. Attackers are not at any special advantage when attacking a *confused* character. Any *confused* character who is attacked automatically attacks its attackers on its next turn, as long as it is still *confused* when its turn comes. A *confused* character does not make attacks of opportunity against any creature that it is not already devoted to attacking (either because of its most recent action or because it has just been attacked).

COWERING
The character is frozen in fear and can take no actions. A cowering character takes a –2 penalty to Defensive Class and loses her Dexterity bonus (if any).

DAZED
The creature is unable to act normally. A dazed creature can take no actions, but has no penalty to AC.
A dazed condition typically lasts 1 round.

DAZZLED
The creature is unable to see well because of over-stimulation of the eyes. A dazzled creature takes a –1 penalty on attack rolls, Search checks, and Spot checks.

DEAD
The character's Hit Points are reduced to his Death Level, his Constitution drops to 0, or he is killed outright. The character is dead. Dead characters cannot benefit from normal or medical healing, and they cannot be restored to life. A dead body decays normally unless preserved.

DEAFENED
A *deafened* character cannot hear. She takes a –4 penalty on initiative checks, automatically fails Listen checks, and has a 20% chance of spell failure when casting spells with verbal components. Characters who remain deafened for a long time grow accustomed to these drawbacks and can overcome some of them.

DISABLED
A character with 0 Hit Points, or one who has negative Hit Points but has become stable and conscious, is *disabled*. A *disabled* character may take a single move action or standard action each round (but not both, nor can she take full-round actions). She moves at half speed. Taking move actions doesn't risk further injury, but performing any standard action (or any other action the GM deems strenuous, including some free actions such as casting a quickened spell) deals 1 point of damage after the completion of the act. Unless the action increased the disabled character's Hit Points, she is now in negative Hit Points and dying.

A disabled character with negative Hit Points recovers Hit Points naturally if she is being helped. Otherwise, each day she has a 10% chance to start recovering Hit Points naturally (starting with that day); otherwise, she loses 1 Hit Point. Once an unaided character starts recovering Hit Points naturally, she is no longer in danger of losing Hit Points (even if her current Hit Points are negative).

DYING
A *dying* character is unconscious and near death, in *shock*. Their current Hit Points are between -1 and their Death Level. A *dying* character can take no actions and is *unconscious*. At the end of each round (starting with the round in which the character dropped below 0 Hit Points), the character rolls d% to see whether she becomes stable. She has a 10% chance to become stable. If she does not, she loses 1 Hit Point. If a dying character reaches –10 Hit Points, she is dead.

ENTANGLED
The character is ensnared. Being *entangled* impedes movement, but does not entirely prevent it unless the bonds are anchored to an immobile object or tethered by an opposing force. An *entangled* creature moves at half speed, cannot run or charge, and takes a –2 penalty on all attack rolls and a –4 penalty to Dexterity. An *entangled* character who attempts to cast a spell must make a Concentration check (DC 15 + the spell's level) or lose the spell.

EXHAUSTED
An *exhausted* character moves at half Speed and takes a –6 penalty to Strength and Dexterity. A creature is exhausted as long as it's current Vitality is 1/4th or lower than it's maximum Vitality.

FASCINATED
A *fascinated* creature is entranced by a technological or psionic effect. The creature stands or sits quietly, taking no actions other than to pay attention to the *fascinating* effect, for as long as the effect lasts. It takes a –4 penalty on skill checks made as reactions, such as Listen and Spot checks. Any potential threat, such as a hostile creature approaching, allows the *fascinated* creature a new saving throw against the *fascinating* effect. Any obvious threat, such as someone drawing a weapon, casting a spell, or aiming a ranged weapon at the *fascinated* creature, automatically breaks the effect. A *fascinated* creature's ally may shake it free of the spell as a standard action.

FATIGUED
A *fatigued* character can neither run nor charge and takes a –2 penalty to Strength and Dexterity. A creature is fatigued as long s it's current Vitality 1/2 it's maximum Vitality or lower and it is not *exhausted.*

FLAT-FOOTED
A character who has not yet acted during a combat is *flat-footed*, not yet reacting normally to the situation. A flat-footed character loses his Dexterity bonus to Defensive Class(if any) and cannot make attacks of opportunity.

FRIGHTENED
A *frightened* creature flees from the source of its fear as best it can. If unable to flee, it may fight. A *frightened* creature takes a –2 penalty on all attack rolls, saving throws, skill checks, and ability checks. A *frightened* creature can use special abilities, including psionics, to flee; indeed, the creature must use such means if they are the only way to escape.

Frightened is like *shaken*, except that the creature must flee if possible. *Panicked* is a more extreme state of fear.

GRAPPLING
Engaged in wrestling or some other form of hand-to-hand struggle with one or more attackers. A *grappling* character can undertake only a limited number of actions. He does not threaten any squares, and loses his Dexterity bonus to Defensive Class(if any) against opponents he isn't grappling.

HELPLESS
A *helpless* character is *paralyzed*, bound, sleeping, *unconscious*, or otherwise completely at an opponent's mercy. A *helpless* target is treated as having a Dexterity of 0 (–5 modifier). Melee attacks against a *helpless* target get a +4 bonus (equivalent to attacking a prone target). Ranged attacks gets no special bonus against *helpless* targets.

As a full-round action, an enemy can use a melee weapon to deliver a death blow to a *helpless* foe. An enemy can also use a ranged weapon, provided he is adjacent to the target. The attacker automatically hits as if attacking a Defensive Class of 0, and gains a the damage effect for his attack's damage type.

Delivering a death blow provokes attacks of opportunity.

INCORPOREAL
Having no physical body. *Incorporeal* creatures are immune to all most attack forms. They can be harmed only by other incorporeal creatures of the same type, or effects they are vulnerable to.

INVISIBLE
Visually undetectable. An *invisible* creature gains a +2 bonus on attack rolls against sighted opponents, and ignores its opponents' Dexterity bonuses to Defensive Class(if any). (See Invisibility, under Special Abilities.)

KNOCKED DOWN
Depending on their size, creatures can be *knocked down* by winds of high velocity. Creatures on the ground are knocked prone by the force of the wind. Flying creatures are instead blown back 1d6 x 10 feet.

NAUSEATED
Experiencing stomach distress. *Nauseated* creatures are unable to attack, cast spells, concentrate on spells, or do anything else requiring attention. The only action such a character can take is a single move action per turn.

NEGATIVE LEVEL
Some creatures and attacks have the capacity to render a person temporarily or permanently amnesiac, or drain their souls outright. This is done by giving somebody a Negative Level. Typically these come from an Energy Drain attack, poison, or by messing with somebody's mind *really badly*.

A creature with any Negative Levels applies them as a penalty to all of it's Skill checks, attack rolls, and saving throws. After the creature ahs had a chance to rest, it gets a Fortitude save (with the penalty still) against a DC of 20 for each Negative Level. If the saving throw failed, then it loses a Class Level and all the abilities that came with it. The experience points lost in this manner can later be regained, so record them and what they where spent on. If the character regains them after purchasing the lost level again, then the experience points can be spent on anything else they qualify for. If they fail or succeed, the Negative Level is erased.

If a creature has multiple Negative Levels, check for each one before subtracting any Class Levels.

PANICKED
A *panicked* creature must drop anything it holds and flee at top speed from the source of its fear, as well as any other dangers it encounters, along a random path. It can't take any other actions. In addition, the creature takes a –2 penalty on all saving throws, skill checks, and ability checks. If cornered, a *panicked* creature cowers and does not attack, typically using the total defense action in combat. A *panicked* creature can use special abilities, including spells, to flee; indeed, the creature must use such means if they are the only way to escape.

Panicked is a more extreme state of fear than *shaken* or *frightened*.

PARALYZED
A *paralyzed* character is frozen in place and unable to move or act. A paralyzed character has effective Dexterity and Strength scores of 0 and is helpless, but can take purely mental actions. A winged creature flying in the air at the time that it becomes *paralyzed* cannot flap its wings and falls. A *paralyzed* swimmer can't swim and may drown. A creature can move through a space occupied by a paralyzed creature—ally or not. Each square occupied by a paralyzed creature, however, counts as 2 squares.

PINNED
Held immobile (but not *helpless*) in a *grapple*.

PRONE
The character is on the ground. An attacker who is *prone* has a –4 penalty on melee attack rolls and cannot use a ranged weapon (except for a crossbow or firearm). A defender who is *prone* gains a +4 bonus to Defensive Class against ranged attacks, but takes a –4 penalty to Defensive Class against melee attacks.

Standing up is a move-equivalent action that provokes an attack of opportunity. A successful Tumble DC 15 check makes this a free action instead.

SHAKEN
A *shaken* character takes a –2 penalty on attack rolls, saving throws, skill checks, and ability checks.

Shaken is a less severe state of fear than *frightened* or *panicked.*

SHOCK
When a living creature is at 0 or fewer Hit Points, and in danger of *dying.*

SICKENED
The character takes a –2 penalty on all attack rolls, weapon damage rolls, saving throws, skill checks, and ability checks.

STABLE
A character who was *dying* but who has stopped losing Hit Points and still has negative Hit Points is *stable.* The character is no longer *dying*, but is still *unconscious.* If the character has become *stable* because of aid from another character (such as a Heal check or magical healing), then the character no longer loses Hit Points. He has a chance each hour of becoming conscious and *disabled* (even though his Hit Points are still negative), by making a Fortitude save.

If the character became *stable* on his own and hasn't had help, he is still at risk of losing Hit Points. Each hour, he has a chance of becoming conscious and disabled, by making a Fortitude save. Otherwise he loses 1 Hit Point.

STAGGERED
A character whose Hit Point damage exactly equals his maximum Hit Points is *staggered.* A *staggered* character may take a single move action or standard action each round (but not both, nor can she take full-round actions). If he takes a standard action, he loses a Hit Point at the end of the round

STUNNED
A *stunned* creature drops everything held, can't take actions, takes a –2 penalty to AC, and loses his Dexterity bonus to Defensive Class (if any).

UNCONSCIOUS
Knocked out and *helpless*. *Unconsciousness* can result from having current Hit Points between –1 and –9, or from having no Vitality left.

WITHDRAWAL
A character that has gone too long without a dose of a drug or poison they are addicted to is considered to be in *withdrawal.* While in this state, they insure an ever-increasing penalty to their saving throws and skill checks, as well as requiring a Will save to resist taking *any* opportunity to satisfy their addiction.

APPENDIX: USEFUL TABLES

TABLE 2-1: SKILLS

Master Skill List / Skill	Key Ability	Trained Only?	ACP?	Technical Proficiency?
Appraise	Int	No	No	No
Astrogation	Int	Yes	No	No
Balance	Dex	No	Yes	No
Bluff	Cha	No	No	No
Climb	Str	No	Yes	No
Computer Use	Int	No	No	Yes
Craft	Int	No	No	Usually
Cryptography	Int	Yes	No	No
Demolitions	Int	Yes	No	Yes
Diplomacy	Cha	No	No	No
Disable Device	Int	Yes	No	No
Disguise	Cha	No	No	No
Escape Artist	Dex	No	Yes	No
Forgery	Int	No	No	Often
Freefall	Dex	No	Yes	No
Gather Information	Cha	No	No	No
Handle Animal	Cha	Yes	No	No
Heal	Wis	No	No	No
Hide	Dex	No	Yes	No
Intimidate	Cha	No	No	No
Jump	Str	No	Yes	No
Knowledge	Int	Yes	No	No
Listen	Wis	No	No	No
Move Silently	Dex	No	Yes	No
Open Lock	Dex	Yes	No	Sometimes
Perform	Cha	No	No	No
Pilot	Dex	No	Yes	Yes
Profession	Wis	Yes	No	No
Remote Operation	Int	No	No	Yes
Repair	Int	Yes	No	Yes
Research	Wis	No	No	Sometimes
Robotics	Int	No	No	Yes
Search	Int	No	No	No
Sense Motive	Wis	No	No	No
Sleight of Hand	Dex	Yes	Yes	No
Spot	Wis	No	No	No
Street Smarts	Wis	No	No	No
Survival	Wis	No	No	No
Swim	Str	No	No	No
Tumble	Dex	Yes	Yes	No
Use Rope	Dex	No	No	No

TABLE 2-2: DIFFICULTY CLASS EXAMPLES

Difficulty	DC	Example (Skill Used)
Very easy	0	Notice something large in plain sight (Spot)
Easy	5	Climb a knotted rope (Climb)
Average	10	Hear an approaching guard (Listen)
Tough	15	Rig a grav-cushion to fail (Disable Device)
Challenging	20	Swim in stormy water (Swim)
Formidable	25	Open an average lock (Open Lock)
Heroic	30	Leap accross a 30-foot chasm (Jump)
Nearly	40	Track a group of ghoulies across hard ground
Impossible		after 24 hours of rainfall (Survival)

TABLE 2-3: EXAMPLE OPPOSED CHECKS

Task	Skill (Key Ability)	Opposing Skill (Key Ability)
Con someone	Bluff (Cha)	Sense Motive (Wis)
Impersonate someone	Disguise (Cha)	Spot (Wis)
Create false map	Forgery (Int)	Forgery (Int)
Hide from someone	Hide (Dex)	Spot (Wis)
Make others back off	Intimidate (Cha)	Special*
Sneak up on someone	Move Silently (Dex)	Listen (Wis)
Steal a carried item	Sleight of Hand (Dex)	Spot (Wis)
Tie a prisoner up	Use Rope (Dex)	Escape Artist (Dex)

* An Intimidate check is opposed by the target's Base Attack bonus + Will, not another skill.

TABLE 2-4: SKILL SYNERGIES

Every 5 ranks in...	Gives a +2 bonus on...
Appropriate Craft	Appraise
Appropriate Craft	Repair
Appropriate Knowledge	Research
Balance	Freefall
Bluff	Diplomacy
Bluff	Disguise (when impersonating)
Bluff	Intimidate
Bluff	Sleight of Hand
Computer Use	Robotics (programming)
Cryptography	Computer Use (hacking into systems)
Escape Artist	Use Rope (to bind someone)
Jump	Freefall
Jump	Tumble
Knowledge (biology)	Heal
Knowledge (chemistry)	Craft (poison)
Knowledge (chemistry)	Demolitions (to make explosives)
Knowledge (local)	Gather Information (that area)
Knowledge (local)	Street Smarts (that area)
Knowledge (psionics)	Fetching, Psychokinesis, Telepathy
Knowledge (space)	Astrogation
Robotics	Craft (robotics)
Robotics	Repair (fix robots)
Search	Survival (find or follow tracks)
Sense Motive	Diplomacy
Street Smarts	Gather Information (locate something)
Tumble	Balance
Tumble	Freefall
Tumble	Jump
Use Rope	Climb (when using a rope)
Use Rope	Escape Artist (to get out of ropes)

TABLE 3-1: FEAT PREREQUISITE TREES

Fetching [Creation] Wisdom 11+
- Time Skip [Psionic] Fetching 5+ ranks

Alertness [General, Psionic]
Armor Proficiency (Light) [General]
- Armor Proficiency (Medium) [General]
  - Armor Proficiency (Heavy) [General]
    - Armor Proficiency (Powered) [Combat]

Blind-Fight [Combat]
Combat Expertise [Combat] Intelligence 13+
- Improved Disarm [Combat]
- Whirlwind Attack [Combat] Dexterity 13+, Dodge, Mobility, Spring Attack, Base Attack +4

Combat Reflexes [Combat]
Dodge [Combat] Dexterity 13+
- Gun-Fu [Combat]
- Mobility [Combat]
  - Shot on the Run [Combat] Point Blank Shot, Base Attack +4
  - Spring Attack [Combat] Base Attack +4
    - Whirlwind Attack [Combat] Intelligence 13+, Combat Expertise, Base Attack +4

Endurance [Combat]
Exotic Weapon Proficiency [Combat] Base Attack +1
Fetching [Creation] Wisdom 11+
- Time Skip [Psionic] Wisdom 13+, Fetching 5+ ranks

Gene-Jacked [General]
Great Fortitude [General]
High-G Tolerance [Combat] Strength 13+
Home System [Creation] Must be raised in the system
Implant Natural [Creation] Constitution 15+
Improved Initiative [Combat]
Improved Trip [Combat]
Improved Unarmed Combat [Combat]
- Martial Arts [Combat] Balance 4+ ranks, Tumble 4+ ranks, Base Attack +2

Information Junkie [General]
Intuitive Genius [General] Wisdom 13+, Scholar level 1+
Iron Will [General]
Lightning Reflexes [General]
Low-G Tolerance [Combat] Dexterity 13+
Point Blank Shot [Combat]
- Precise Shot [Combat]
  - Crack Shot [Combat]
- Rapid Shot [General]
  - Autofire [Combat] Martial Firearm Proficiency, Precise Shot, Technical Proficiency
- Shot on the Run [Combat] Dodge, Mobility, Base Attack +4

Power Attack [Combat] Strength 13+
- Cleave [Combat]
- Improved Bull Rush [Combat]

Psychokinesis [Creation] Intelligence 11+
- PK Shield [Psionic] Intelligence 13+, Psychokinesis 5+ ranks

Quick Draw [Combat] Base Attack +1
Rapid Reload [General] Weapon Proficiency (type chosen), Base Attack +1
Run [General]
Scent [General]
Skill Focus [General]

TABLE 3-1: GEAR COMPLEXITY

Complexity	Example Craft DC	Hit Point	Example
Primitive	5 + Quality	divide by 1	A club or rock
Simple	10 + Quality	divide by 2	A sword
Basic	15 + Quality	divide by 4	A projectile weapon, slug-thrower, or suit of light or medium armor
Average	20 + Quality	divide by 5	An energy firearm, gyroc, suit of heavy armor, or case computer
Great	25 + Quality	divide by 7	A suit of powered armor, pocket computer, or ground vehicle
High	25 + (Quality x2)	divide by 10	A robot, datasheet computer, or flight-capable vehicle
Amazing	25 + (Quality x2)	divide by 15	A Cybernetic implant or space-capable vehicle

TABLE 3-2: MATERIAL STATISTICS

Material	Hardness	Hit Points/lb
Paper, cloth, rope, ice	0	2
Glass	1	1
Leather, hide, and flexible plastic	2	5
Wood and rigid plastic	5	10
Stone, basic metals, high-strength plastic	8	15
Forged iron and steel	10	30
Composite ceramics and steel alloys	15	40
Industrial ceramics and metal alloys	20	50

TABLE 5-10: STANDARD AND EXAMPLE MELEE WEAPONS

Simple Melee	Size	Range	Damage	Type	Weight	Price	Gear Level
Bar	Small	---	1d8	Bludgeoning	5	5 x Quality	1/2 Quality
Club	Tiny	10 ft	1d6	Bludgeoning	3	---	1/2 Quality
Combat Glove	Tiny/Dim	---	1d6/1d4	Bludgeoning	---	10 x Quality	1/2 Quality
Dagger	Diminutive	10 ft	1d4	Piercing	1	2 x Quality	1/2 Quality
Unarmed Strike	Tiny/ Dim	---	1d3/1d2$	Bludgeoning	---	---	0

Martial Melee	Size	Range	Damage	Type	Weight	Price	Gear Level
Greatsword	Medium	---	2d6	Slashing	15	30 x Quality	1 +1/2 Quality
Shock Baton &	Small	---	4d6	Electricity	5	250 x Quality	2 +1/2 Quality
Shock Glove &	Tiny/ Dim	---	2d6	Electricity	0.5	50 x Quality	2 +1/2 Quality
Shortsword	Tiny	---	1d6	Piercing	3	10 x Quality	1 +1/2 Quality
Longsword	Small	---	1d8	Slashing	5	20 x Quality	1 +1/2 Quality
Vibroknife &	Diminutive	---	1d8	Piercing	1	200 x Quality	2 +1/2 Quality

Exotic Melee	Size	Range	Damage	Type	Weight	Price	Gear Level
Mono-Whip &	Small	up to 30 ft	3d6	Slashing	2	2,000 x Quality	4 +1/2 Quality
Vibroblade &	Small	---	1d12	Slashing	5	500 x Quality	4 +1/2 Quality

TABLE 5-11: STANDARD AND EXAMPLE PROJECTILE WEAPONS

Simple Projectile	Size	Range	Damage	Type	Weight	Price	Gear Level
Crossbow, light	Tiny	50 ft	1d10	Piercing	5	10	1 + 1/2 Quality
Crossbow, normal	Small	80 ft	1d12	Piercing	8	20	1 + 1/2 Quality
"Normal Quarrel	Diminutive	---	---	---	0.1	0.2	
Dart	Diminutive	20 ft	1d4	Piercing	0.5	1	1 + 1/2 Quality
Grenade, incendiary	Diminutive	10 ft	4d6 @	Blast/Fire	0.5	15	2
Grenade, offensive	Diminutive	10 ft	10d6 @	Blast	0.5	35	5
Grenade, defensive	Diminutive	10 ft	5d6 @	Blast	0.5	17	2
Grenade, smoke &	Diminutive	10 ft	1d6 @	Blast	0.5	25	1

Martial Projectile	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Bow, Long	Med	80 ft	arrow	1d6	Piercing	8	100	2 + 1/2 Quality	
Bow, Short	Small	50 ft	arrow	1d8	Piercing	5	35	2 + 1/2 Quality	
" Arrow	Dim	---	---	---	---	0.1	0.1	0	
Grenade Launcher	Med	grenade	12 (mag)	grenade	grenade	20	40	1	(free Extra Ammo)
" Grenade, incendiary	Dim	20 ft	---	4d6 @	Blast/Fire	0.5	20	+2	
" Grenade, offensive	Dim	20 ft	---	10d6	Blast	0.5	40	+5	
" Grenade, defensive	Dim	20 ft	---	5d6	Blast	0.5	22	+2	
" Grenade, smoke &	Dim	20 ft	---	1d6 @	Blast	0.5	30	+1	
Rocket Launcher	Med	rocket	6 (mag)	rocket	rocket	20	40	1	(free Extra Ammo)
" Anti-air rocket	Tiny	200 ft	---	25d6	Blast	10	200	+12	Enhanced Plastic (Extended Range)
" Ground rocket	Tiny	100 ft	---	20d6	Blast	10	130	+10	Plastic
" Anti-V rocket &	Tiny	100 ft	---	12d6/12d6	Blast	10	350	+13	Enhanced Plastic (Anti-V)
" Urban rocket	Tiny	100 ft	---	10d6	Blast	10	115	+5	Nitroglycerine
" Tactical rocket &	Tiny	200 ft	---	80d6 @	Nuclear	10	2,800	+40	Fission (Extended Range)

Exotic Projectile	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Gyroc Gun &	Tiny	gyroc	15 (clip)	gyroc	gyroc	6	125	7	
Gyroc Rifle &	Small	gyroc	30 (clip)	gyroc	gyroc	9	500	7	
" Ex gyroc	Dim	---	---	2d6	Blast	0.2	25	+1	Plastic
" Ex Incendiary gyroc &	Dim	---	---	1d6	Blast/Fire	0.2	25	+0	Incendiary
" Kinetic gyroc	Dim	---	---	1d8	Piercing	0.2	10	+0	

TABLE 5-12: STANDARD AND EXAMPLE FIREARM WEAPONS

Simple Firearms	Size	Range	Ammo	Damage	Type	Weight	Price	GL
Blaster Pistol	Diminutive	60 ft	5	2d6	Electricity	2	30	2
Laser Pistol	Diminutive	100 ft	10	2d4	Fire	1	20	2
Shot Pistol	Diminutive	20 ft	3 (clip)	2d8	Bludgeoning	3	10	2
" Pistol Bullet	Fine	---	---	---	---	.01	1 (for 15)	2

Martial Firearms	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Blaster Gun	Tiny	60 ft	7	2d6	Electricity	4	75	5	(Autofire)
Laser Gun	Tiny	100 ft	15	2d4	Fire	2	50	5	(Autofire)
Slug Gun	Tiny	20 ft	5	2d8	Bludgeoning	6	25	5	(Autofire)
" Pistol Bullet	Fine	---	---	---	---	.02	2 (for 15)		
Blaster Rifle	Small	150 ft	12	4d6	Electricity	8	350	3	(Extra Shots)
Laser Rifle	Small	300 ft	20	4d4	Fire	4	200	3	(Extended Range)
Slug Rifle	Small	50 ft	8	4d8	Bludgeoning	12	150	3	(Extra Shots)
" Pistol Bullet	Fine	---	---	---	---	.05	5 (for 15)		

Exotic Firearms	Size	Range	Ammo	Damage	Type	Weight	Price	GL	Notes
Blaster Crystal &	Fine	10 ft	1	1d6	Electricity	na	150	4	Cannot be reloaded
Laser Crystal &	Fine	20 ft	2	1d4	Fire	na	100	4	Cannot be reloaded
Laser Cannon	Medium	375 ft	100	8d4	Fire	8	2,500	7	(Autofire, Extra Shots x 4)

$ Does Vitality damage, not Hit Point damage.
@ Explosive weapon. Reduce damage by one die for every 5 ft from square of impact.
& Special rules, see weapon entry.

TABLE 5-15: BASIC GEAR

Clothing	Price	Weight
Hazardous Environment	Q x Q x250	10
Fine	1,000	5
High Class	250	4
Nice	100	4
Mediocre	25	3
Street Rags	free	2

Drugs & Medicine	Price	Weight
Adrenal Boost	Quality x 20	neg.
Antibiotic	Quality x 5	neg.
Dermal Patch	5	neg.
Disinfectant	Quality x 2	neg.
Injector	Quality x 25	1/10
Intoxicant	Quality x 10	neg.
Rad-X	Quality x 100	neg.
Radblock	Quality x 25	neg.
Sedative	Quality x 5	neg.
Stimulant	Quality x 10	neg.

Electronics	Price	Weight
Charge Pack	1 per Point	Points/100
Computer	not including OS	
"Datasheet	Q x Q x250	neg
"Pocket	Q x Q x100	1/2 lb
"Case	Q x Q x50	10 lb
"Major System	Q x Q x5000	500 lb
Environmental Scanner	Q x Q x50	1/2 lb
Radio Communicator	Q x Q x25	1/2 lb

Magi	Price	Weight	Gear Level
Force Glove	Quality x 250	1/2 lb	Quality
Intuition Augmenter	Quality x 2,000	1 lb	---

Nanotech	Price	Weight	Gear Level
Nano Factory	Quality x 1000	12 lb	---
"Dedicated	Quality x 100	2 lb	---
Nano Ghost (Magi)	6,300	1/10 lb*	---
Nano Interface (Magi)	1,725	1/10 lb*	---
Nano Meds (by race)	3,000	1/10 lb*	3
Nano Ripper Pack	2,800	1 lb	2
Nano Scrambler Pack	563	1 lb	
Nano Shield (Magi)	Quality x 100	1 lb	
" Refill (Magi)	3,500	1/10 lb*	3
Nano Spectre (Magi)	9,888	1/10 lb*	9
Nano Torch	613	1/10 lb*	

* Weight of the container. The nano-bots it contains are virtually weightless.

Program	Price	Points
Astrogation	Rating x 100	Rating
Codebreaking	Rating x 500	Rating x 2
Computer system OS	Rating x 50	NA
Database	Ranks x 100	Ranks
Design	Rating x 300	Rating
Martial Weapons	5000	5
Programmer's Suite	Rating x 500	Rating x 4
Robotic computer OS	Rating x 100	NA
Robotic Skill	Ranks x 500	Ranks x 2
Schematic	Price/1,000	Price/500
Security	Rating x 400	Rating x 2
Simple Weapons	1000	2
Targeting	Rating x 250	Rating
Translation	250	1

Tools	Price	Weight
Armor Toolkit	Rating x 50	6 lbs
Computer Toolkit	Rating x 300	2 lbs
Electronics Toolkit	Rating x 100	3 lbs
Demolitions Toolkit	Rating x 50	2 lbs
Medical Kit	Rating x 200	6 lbs
Med-Tech Toolkit	Rating x 100	5 lbs
Robotics Toolkit	Rating x 200	5 lbs
Vehicle Toolkit	Rating x 50	10 lbs
Weaponry Toolkit	Rating x 100	4 lbs
Workshop	x 50	x 25

HIT POINTS AND VITALITY DAMAGE PENALTIES

Normal	Current Amount																		
Maximum	**20**	**19**	**18**	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
20	X	X	X	X	X	X	X	X	X	X	f	f	f	f	f	E	E	E	E	E
19		X	X	X	X	X	X	X	X	X	X	f	f	f	f	f	E	E	E	E
18			X	X	X	X	X	X	X	X	X	f	f	f	f	f	E	E	E	E
17				X	X	X	X	X	X	X	X	X	f	f	f	f	E	E	E	E
16					X	X	X	X	X	X	X	X	f	f	f	f	E	E	E	E
15						X	X	X	X	X	X	X	X	f	f	f	f	E	E	E
14							X	X	X	X	X	X	X	f	f	f	f	E	E	E
13								X	X	X	X	X	X	X	f	f	f	E	E	E
12									X	X	X	X	X	X	f	f	f	E	E	E
11										X	X	X	X	X	X	f	f	f	E	E
10											X	X	X	X	X	f	f	f	E	E
9												X	X	X	X	X	f	f	E	E
8													X	X	X	X	f	f	E	E
7														X	X	X	X	f	f	E
6															X	X	X	f	f	E
5																X	X	X	f	E
4																	X	X	f	E
3																		X	X	f
2																			X	f
1																				X

"X" No Penalties
"f" *Fatigued*
"E" *Exhausted*

Note: If a character is *fatigued* from both Hit Points and Vitality, then he is instead *exhausted.* If a character is *fatigued* from one type of damage and *exhausted* from the other, then he is *staggered*. If a character is *exhausted* from both Hit Points and Vitality then he is *helpless.*

BIBLIOGRAPHY

I found each of the following sources to be inspirational for the development of this game's contents and "feel". Look them over, and I'm sure you will find elements of each in Dead Stars!

Books

"A Connecticut Yankee in King Arthur's Court" Mark Twin started an entire genre with this book, and it is STILL good!
"The Adventures of Conrad Stargard" actually the name of an out-of-print series by Leo Frankowski.
"The Ambivalent Magician" More humorous take on the "displaced in time" story, and pretty funny at times.
"The Fata Morgana" Another Leo Frankowski masterpiece. It is in a similar vein as the Conrad series, but still in print and no time-travel.
"King David's Spaceship" by Jerry Pournelle. A great write-up of low tech societies after the fall of an old interstellar empire.
"Necroscope" by Brian Lumley. You want to see psionics in action, this series is THE LAST WORD! Pretty creepy too.

Comics

"Spider-Man 2099" by Marvel Comics. Nice example of rule-by-corporation.

Computer Games

"Fallout" I love the "make-do" technology feel of this game.
"Star Craft" not making a sequel to this is a crime punishable by Brain-Ripping... No, an FPS-wannabe does ***NOT*** count as a sequel!

Console Games

"Armored Core" for the Playstation. Build your robot, and try to accomplish the mission...GREAT technology system here.
"Carnage Heart" for the Playstation. I just ***LOVE*** this game!

Movies

"Aliens" The first sequel, not the original or any of the other sequels. The game's Vagabond class is more than partially based on Ripley.
"Army of Darkness" the sequal to the "Evil Dead" movies. Yes, Ash *is* the original inspiration for the Vagabond class.
"Equilibrium" Oddly enough, I came up with the "Gun-Fu" feat BEFORE I even knew this movie existed! Still a damn fine flick.
"Italian Job" every flavor of Rogue...
"Virus" the inspiration for the Necrol!

Television Shows

"Babylon 5" Lets face it, if you want gritty space opera this is IT! I borrowed liberally from "down below" and season 3 for the "big brother doesn't give a rat's ass" feel of the Karoc system.
"MacGuyver" Now THIS show is a prime example of the Technician's specialty abilities! Kind of old now though.

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Name [__________________] Player [______________] Race [__________]

DEAD STARS

	Level	Class	Level	Prestige Class	Description
Character Level [____]	[____]	-- Psionicist	[____]	-- ____________	________________
Level Adjustment [____]	[____]	-- Rogue	[____]	-- ____________	________________
	[____]	-- Scholar	[____]	-- ____________	________________
Gear Level [____]	[____]	-- Technician	[____]	-- ____________	________________
	[____]	-- Vagabond	[____]	-- ____________	**SIZE** [____________]
Total ECL [____]	[____]	-- Warrior	[____]	-- ____________	**SPEED** [__________]

ABILITY SCORES

	Base	Bonus	Total	Mod	Damage
STR	[____]	+[____]	=[____]	[____]	[______]
DEX	[____]	+[____]	=[____]	[____]	[______]
CON	[____]	+[____]	=[____]	[____]	[______]
INT	[____]	+[____]	=[____]	[____]	[______]
WIS	[____]	+[____]	=[____]	[____]	[______]
CHA	[____]	+[____]	=[____]	[____]	[______]

INITIATIVE

[____________]

TO-HIT BONUS

BAB +Dex+Size

[___][___][___]

TOTAL

[____________]

SAVING THROWS

	TOTAL	Base	Ability	Misc.	Conditional Modifiers
FORT	[______]	=[____]	+[____]	+[______]	________________
REF	[______]	=[____]	+[____]	+[______]	________________
WILL	[______]	=[____]	+[____]	+[______]	________________

HIT POINTS

Maximum	Current
[____]	[____]

VITALITY

Maximum	Current
[____]	[____]

DEFENSIVE CLASS

10 + Dex [_] + Size [_] + Misc. [_] = [_]

ARMOR

Name	Type	DR	ER	Max Dex	ACP	WT	Damage Threshold	Q
[__________]	[_____]	[___]	[___]	[___]	[___]	[___]	[____/_____]	[__]

Cost	Options	GL	
[_____]	[____/___]	[___]	[________________________________]

[____]

[____]

[____]

WEAPONS

Name	Size	Range	Ammo	Damage	Type	WT
[____________]	[_____]	[_____]	[_______]	[_______]	[_____]	[__]

Cost	Options	GL	Q	
[_____]	[____/___]	[___]	[___]	[__________________________]

Name	Size	Range	Ammo	Damage	Type	WT
[____________]	[_____]	[_____]	[_______]	[_______]	[_____]	[__]

Cost	Options	GL	Q	
[_____]	[____/___]	[___]	[___]	[__________________________]

Name	Size	Range	Ammo	Damage	Type	WT
[____________]	[_____]	[_____]	[_______]	[_______]	[_____]	[__]

Cost	Options	GL	Q	
[_____]	[____/___]	[___]	[___]	[__________________________]

Name	Size	Range	Ammo	Damage	Type	WT
[____________]	[_____]	[_____]	[_______]	[_______]	[_____]	[__]

Cost	Options	GL	Q	
[_____]	[____/___]	[___]	[___]	[__________________________]

Name	Size	Range	Ammo	Damage	Type	WT
[____________]	[_____]	[_____]	[_______]	[_______]	[_____]	[__]

Cost	Options	GL	Q	
[_____]	[____/___]	[___]	[___]	[__________________________]

SKILLS

Total	Ranks	Mod	Skill	Key Ability
[_____]	=[____]	+[_____]	Appraise	Int
[_____]	=[____]	+[_____]	Astrogation	Int (t)
[_____]	=[____]	+[_____]	Balance	Dex (a)
[_____]	=[____]	+[_____]	Bluff	Cha
[_____]	=[____]	+[_____]	Brain Ripper	Cha (t, p)
[_____]	=[____]	+[_____]	Climb	Str (a)
[_____]	=[____]	+[_____]	Computer Use	Int (c)
[_____]	=[____]	+[_____]	Craft (_____________)	Int (c)
[_____]	=[____]	+[_____]	Craft (_____________)	Int (c)
[_____]	=[____]	+[_____]	Craft (_____________)	Int (c)
[_____]	=[____]	+[_____]	Craft (_____________)	Int (c)
[_____]	=[____]	+[_____]	Cryptography	Int (t)
[_____]	=[____]	+[_____]	Demolitions	Int (t, c)
[_____]	=[____]	+[_____]	Diplomacy	Cha
[_____]	=[____]	+[_____]	Disable Device	Int (t)
[_____]	=[____]	+[_____]	Disguise	Cha
[_____]	=[____]	+[_____]	Escape Artist	Dex (a)
[_____]	=[____]	+[_____]	Fetching	Wis (t, p)
[_____]	=[____]	+[_____]	Forgery	Int (c)
[_____]	=[____]	+[_____]	Freefall	Dex (a)
[_____]	=[____]	+[_____]	Gather Information	Cha
[_____]	=[____]	+[_____]	Handle Animal	Cha (t)
[_____]	=[____]	+[_____]	Heal	Wis
[_____]	=[____]	+[_____]	Hide	Dex (a)
[_____]	=[____]	+[_____]	Intimidate	Cha
[_____]	=[____]	+[_____]	Jump	Str (a)
[_____]	=[____]	+[_____]	Knowledge (_______)	Int (t)
[_____]	=[____]	+[_____]	Knowledge (_______)	Int (t)
[_____]	=[____]	+[_____]	Knowledge (_______)	Int (t)
[_____]	=[____]	+[_____]	Knowledge (_______)	Int (t)
[_____]	=[____]	+[_____]	Listen	Wis
[_____]	=[____]	+[_____]	Move Silently	Dex (a)
[_____]	=[____]	+[_____]	Open Lock	Dex (t, c)
[_____]	=[____]	+[_____]	Perform (__________)	Cha
[_____]	=[____]	+[_____]	Perform (__________)	Cha
[_____]	=[____]	+[_____]	Pilot	Dex (a, c)
[_____]	=[____]	+[_____]	PK Shield	Int (t, p)
[_____]	=[____]	+[_____]	Profession	Wis (t)
[_____]	=[____]	+[_____]	Psychokinesis	Int (t, p)
[_____]	=[____]	+[_____]	Remote Operation	Int (c)
[_____]	=[____]	+[_____]	Repair	Int (t, c)
[_____]	=[____]	+[_____]	Research	Wis (c)
[_____]	=[____]	+[_____]	Robotics	Int (c)
[_____]	=[____]	+[_____]	Search	Int
[_____]	=[____]	+[_____]	Sense Motive	Wis
[_____]	=[____]	+[_____]	Sleight of Hand	Dex (t, a)
[_____]	=[____]	+[_____]	Spot	Wis
[_____]	=[____]	+[_____]	Street Smarts	Wis
[_____]	=[____]	+[_____]	Survival	Wis
[_____]	=[____]	+[_____]	Swim	Str
[_____]	=[____]	+[_____]	Telepathy	Cha (t, p)
[_____]	=[____]	+[_____]	Time Skip	Wis (t, p)
[_____]	=[____]	+[_____]	Tumble	Dex (t, a)
[_____]	=[____]	+[_____]	Use Rope	Dex
[_____]	=[____]	+[_____]	[________________]	[______]
[_____]	=[____]	+[_____]	[________________]	[______]
[_____]	=[____]	+[_____]	[________________]	[______]

(a) Armor Check Penalty applies. (p) Psionic.
(c) Technical Proficiency required. (t) Trained Only.

Campaign:

EXPERIENCE POINTS (XP)

CURRENT	MAX SAVABLE	TOTAL
[ ]	[ ]	[ ]

BASIC GEAR

Item	Wt	Item	Wt

RACIAL ABILITIES

Preferred Class:
Racial Skills:

CLASS ABILITIES

FEATS

Simple:
Martial:
Armor:

CREDITS

LANGUAGES

CYBERIMPLANTS

Implant	Stress	Implant	Stress

GENETIC MODIFICATIONS

Minor Advantages	Major Advantages
Disadvantages	

PSIONICS

Primary Feat	Natural Flow?	Secondary Feat	Natural Flow ?
[_] Fetching	[_]	[_] Time Skip	[_]
[_] Psychokinesis	[_]	[_] PK Shield	[_]
[_] Telepathy	[_]	[_] Brain Ripper	[_]

Other Feats:

OTHER GEAR

Item	Wt	Item	Wt

ENCUMBRANCE

Light Limit	-1 Dex per	-5 Speed per	Amount Carried
[ ]	[ ]	[ ]	[ ]