masamune shirow's

Appleseed

FUZION POWERED

The APPLESEED Compendium of Fuzion Plug-ins and Rules

By David Huber

Disclaimer: *Appleseed* is the sole property of Masamune Shirow. Fuzion is a copyright of R. Talsorian Games. This document should not be considered a violation of their respective copyrights. This document is freeware, and may be distributed freely. This document should not be edited or sold for a profit.

Note: These rules assume the use of the 3d6 dice mechanic, and the 10-point DT bonuses have already been integrated into the DTs of mechanics listed in this RPG. To allow for the 1d10 dice mechanic, simply subtract 10 from all DTs. Also note that in all cases; refer to the standard Fuzion rules except where they are contradicted in these plug-ins and rulings.

Appleseed Character Creation

These rules assume the character is generating a human, non-bioroid, and non-cyborg character. These rules also use the same mechanics presented in the standard Fuzion core rules, and therefore will gloss over rules that remain the same and material that does not differ. If you wish to play either a Bioroid/Hybrid or Cyborg, please see the Bioroid and Cybernetics Appleseed Plug-Ins.

Reality Level

While Appleseed should be played as a Competent or Realistic Level Reality game, player characters will tend to have high CP and OP allowances at character creation. This is because the PCs will tend to be well-trained elite forces, combat veterans, or experts in their fields. The world they live in follows the same laws of physics. However, the PCs are not models of what the average person in their world are like. They are the exception to the rule.

Characteristics

Appleseed Fuzion uses the same 10 base Characteristics as Fuzion, and characters have a total of 40 CP to divide between them at character creation. No characteristic can begin above 7 in level for a starting character. Each Characteristic must possess a minimal value of 1. Likewise, the Appleseed Fuzion Rules use the same Derived Characteristics as core Fuzion. However, characters possess two new Derived Characteristics, which are used in the Appleseed timing system. The first is Reaction, which measures a character's overall speed in combat. Its value is equal to the lowest Characteristic in the Combat Group. The second characteristic is Hesitation, which measures how fast thinking and confidant a character is in combat. Its value equals half the lowest Characteristic in the Mental Group, rounded up.

Options

Starting characters may use 40 OP to flesh out their character. They may not be used to buy Super Powers (powers are banned in Appleseed Fuzion…it's still the 'real world'). However, OP may still be exchanged for Power Points (at a rate of five OP to one PP) for the purposes of buying large hardware such as Landmates (see the Landmate Appleseed Plug-in). Otherwise, they are spent in exactly the same manner as in core Fuzion. Characters may also take Complications for additional OP, though they may not receive more than 30 extra points. A Character may buy an extra point of Reaction or Hesitation for 8 OP.

Skills

In general, Skills in Appleseed are 'narrow'. That is to say, skills in Appleseed generally have very specific effects. There are no broad skills, such as "Science"; scientific knowledge is represented by a plethora of skills. What is compiled below is a list of possible skills for use in an Appleseed game. Players and Game Masters should feel free to expand upon this list and make their own lists.

Everyday Skills

There are some things that everyone is assumed to have a knowledge of, which they have learned from their day to day experience. All characters possess the Brawling, Melee Evade, Education/General Knowledge, Concentration, Perception, Local Expert, and Drive Car at level 2

Skill List

*Combat Skills
- Archery (REF)
- Assault Rifles (REF)
- Bludgeons (STR)
- Brawling (STR)
- Combat Sense (WIL)
- Edged Weapons (STR)
- Gunnery (REF)
- Heavy Weaponry (STR)
- Martial Arts (DEX)
- Melee Evade (DEX)
- Missile Evade (DEX)
- Pistols (REF)
- Rifles (REF)
- Shotguns (REF)
- Submachine Guns (REF)
- Tactics (INT)
- Thrown Weaponry (STR)
- Unarmed Evade (DEX)

*General Skills
- Concentration (WIL)
- Education/General Knowledge (INT)
- Perception (INT)
- Teaching (PRE)

*Social Skills (all PRE)
- Carousing
- Conversation
- Empathy
- Etiquette (specify)
- Impersonation
- Interview
- Intimidation
- Negotiation
- Persuasion
- Seduction
- Style
- Streetwise
- Subterfuge

*Physical Skills
- Acrobatics (AGI)
- Athletics (CON)
- Climbing (STR)
- Feet of Strength (STR)
- Stealth (AGI)
- Swimming (STR)

*Computer Skills
- Computer Operations (INT)
- Computer Programming (INT)
- Hacking (INT)

Networking (INT)

*Medical Skills
- First Aid (TECH)
- Medicine (INT)
- Psychiatry (INT)
- Surgery (INT)

*Sciences (all INT)
- Aerospace Tech
- Architecture
- Archaeology
- Artificial Intelligence
- Anthropology
- Astronomy
- Ballistics
- Biology
- Chemistry
- Cryptography
- Cybernetics
- Design (Vehicle, Power Armor, Landmate)
- Electrical Engineering
- Forensics
- Genetics
- Geology
- Mathematics
- Nanotechnology
- Philosophy
- Physics
- Psychology
- Pathology
- Research
- Robotics

*Technical Skills (all TECH)
- Automobile Tech
- Basic Tech
- Computer Tech
- Cyber Tech
- Demolitions
- Forgery
- Gunsmith (specify)
- Hermes Tech
- Jury Rig
- Landmate Tech
- Locksmith
- Motorcycle Tech
- Security Tech
- Traps

*Interrogation Skills
- Interrogation (PRE)
- Torture (TECH)

Resist Interrogation (WIL)
Resist Torture (WIL)
Resist Toxins (CON)

Vehicle Skills (all TECH)
Drive Bike
Drive Car
Pilot Aircraft
Pilot Helicopter
Pilot Hover-vehicle
Pilot Landmate
Pilot Ship
Pilot Submersible

Craft Skills
Agriculture (INT)
Appraisal (INT)
Armorer (TECH)
Brewing (INT)
Carpentry (TECH)
Cooking (INT)
Fishing (TECH)
Pottery (TECH)
Mining (TECH)
Stonemasonry (TECH)

Survival Skills
Animal Training (WIL)
Hide (INT)
Hunt (TECH)
Shadow (INT)
Survival (specify type) (INT)
Tracking (TECH)

Chicanery Skills
Conceal (INT)
Breaking and Entering (TECH)
Disguise (INT)
Escapology (TECH)
Gaming (INT)
Pickpockets (TECH)
Lock-picking (TECH)
Sleight of Hand (DEX)

Performance Skills
Acting (PRE)
Dancing (DEX
Oration (PRE)
Instrument (specify) (TECH)
Juggling (DEX)
Mimicry (PRE)
Singing (PRE)

Knowledge Skills (all INT)
Bureaucracy
Cosmology

Culture
Economics
Expert
Finance
History
Law
Philosophy
Politics
Occult
Religion

Languages (all INT)
Afrikaans
Arabic
Burmese
Cantonese
Czech
Dutch
English
Ethiopian
French
German
Greek
Hebrew
Italian
Japanese
Korean
Mandarin
Persian
Polish
Portuguese
Romanian
Russian
Spanish
Swiss
Thai

Perks and Privileges

Perks, as per the core Fuzion rules, represent contacts, privileges, and memberships that ultimately benefit the character. In a world where what you know is as important as the caliber of your gun, Perks can be very important. They have a large impact on the game. Each level of a perk costs 3 OP.

What follows includes example perks that are specific to the Appleseed world. Characters and GMs should feel free

Appleseed Combat

Appleseed's combat is fast-paced, brutal, and deadly. Players will soon learn that blowing everything to smithereens won't work half the time, unless they plan and train ahead of time. What follows are new rules for timing, initiative, and firearms that fit with the Appleseed world.
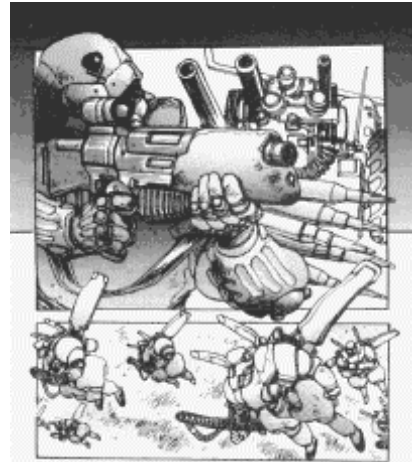
Timing

When the characters are not involved in combat, time moves at an abstract pace, moving as would seem appropriate with the gameplay. In combat, however, time is divided up into strict units. Combat is divided into Rounds lasting ten seconds. Each round is subdivided into ten Phases, each lasting 1 second. In any given phase, some characters will be acting, and other characters will be between actions.

Which Phases a combatant can act in is dependant upon his Characteristics. Very simply put, a character can act in one Phase per round per point of Reaction. Exactly which Phases the character acts in depend upon the Reaction rating as well. Consult the table below. Those phases a character may act in are denoted with an X. Those rounds that the character cannot act in are denoted with a dash.

Phase	Character's Reaction									
	1	2	3	4	5	6	7	8	9	10
1	-	-	-	-	-	-	-	-	-	X
2	-	-	-	-	X	X	X	X	X	X
3	-	-	-	X	-	-	-	X	X	X
4	-	-	X	-	X	X	X	X	X	X
5	-	X	-	-	-	-	X	X	X	X
6	X	-	-	X	X	X	X	-	X	X
7	-	-	X	-	-	-	-	X	X	X
8	-	-	-	X	X	X	X	X	X	X
9	-	-	-	-	-	X	X	X	X	X
10	-	X	X	X	X	X	X	X	X	X

Hesitation

Despite natural inherent speed, people will hesitate in combat, not acting to the best of their ability. At the beginning of each Round, each player should roll 1d6 per point of the Hesitation Derived Characteristic they possess. The lowest value should be kept, while the others should be discarded. The value on the lowest die determines in which phase a character begins to act. Any actions that would have been available in previous Phases are lost.

If a character begins to act in a Phase where he would not be allowed to act, and lost an action due to hesitation (*for example, a character with a Reaction of 5 who rolled a 3 on his hesitation for the round*), he may act in his first phase.

Multiple actions

Invariably, in combat characters will be acting in the same phase. When this occurs, each character's actions are resolved from the highest Reflexes to the lowest Reflexes. In the event of a tie between Reflexes, break it with Reaction, and then with Hesitation.

An example of timing

The ESWAT mission has gone horribly wrong! A Green Beret with a very nasty looking rifle has ambushed our heroin, Deunan Knute. Both want to kill the other as quickly as possible, and so combat begins. Deunan Knute possesses a Reaction of 6 and a Hesitation of 3; she's been well trained. The Green Beret on the other hand is even faster due to cybernetic wiring, and possesses a Reaction of 8, but only has 2 points of Hesitation.

Both combatants roll their Hesitation. Deunan rolls a 3, a 5, and a 6…not a particularly good roll. The Green Beret rolls a 3 and a 4. Both characters hesitate until the third phase of combat. The Green Beret happens to have an action in this phase, and will get to act. Deunan does not normally receive an action in the third phase; however, she is allowed to act because she lost an action due to hesitation.

Both combatants begin acting in the same phase, and therefore their Reflexes are compared to see who will act first. Deunan has Reflexes of 7, while the Green Beret has Reflexes of 5 (his high Reaction is due to cybernetics). Therefore, Deunan gets the first shot off.

Reaction Higher Than 10

It is possible, through the use of cybernetics and bioware, a character's Reaction can be temporarily raised above a value of 10. When this occurs, they may act TWICE during one phase per point of Reaction above 10, with the actions coming in the latest phase possible without allowing for three actions a round.

Surprise

Occasionally, one side in a conflict will be caught off guard, and will have trouble reacting quickly in the first round of combat. If the situation mandates that some or all combatants may be surprised, make a roll of Intelligence + Combat Sense vs. a TN set by the GM (15 to 25 are good difficulties). If the combatant passes the roll, no adverse effects will befall him.

A failure, however, will bring about penalties in the form of additional points added to the character's Hesitation roll. For every 2 points they fail their Surprise Test by, they will suffer a +1 bonus to their Hesitation roll.

Acting

During an allowed phase, a character may perform and Action. An Action is a task a character can perform within the course of a second or two. An action includes firing a gun, ducking out of the way of attacks, or starting an action that may stretch over several phases, such as fixing a jammed gun. Appleseed uses the same set of actions and rules as core Fuzion does.

Movement

Since the Appleseed Fuzion Plug-In uses a different timing system than standard Fuzion, the rules for movement are different. The Move based derived characteristics are ignored. In addition to performing one action per phase, a character may move a set number of meters each round. The number of meters they move is based upon the Move characteristic and the number of actions they will be acting in that round. They may move a total of (MOVE x 4) meters per round, plus 2 per phase they act in after the 4th, divided evenly among the phases they may act in. Any excess meters are lost.

*Example: Deunan has a move of 4, and is taking 5 actions this round. She may move 3 meters per phase (4 * 4 + 2 = 18 / 5 = 3.6)*

A table with the math done already is provided below.

Move	Actions this Round									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1	4m	2m	1m	1m	1m	1m	1m	1m	1m	1m
2	8m	4m	2m	2m	2m	2m	2m	2m	2m	2m
3	12m	6m	4m	3m	2m	2m	2m	2m	2m	2m
4	16m	8m	5m	4m	3m	3m	3m	3m	2m	2m
5	20m	10m	6m	5m	4m	4m	3m	3m	3m	3m
6	24m	12m	8m	6m	5m	4m	4m	4m	3m	3m
7	28m	14m	9m	7m	6m	5m	4m	4m	4m	4m
8	32m	16m	10m	8m	6m	6m	5m	5m	4m	4m
9	36m	18m	12m	9m	7m	6m	6m	5m	5m	4m
10	40m	20m	13m	10m	8m	7m	6m	6m	5m	5m

If a character devotes his entire action to running, he can cover double the listed distance in a phase.

Outside of combat, a character may sprint at a rate of (Move x 12) meters per ten seconds.

Firearms

Guns are an essential part of combat in the world of Appleseed. Most combat in a typical game of Appleseed will involve the use of various firearms, large and small. What follows are new rules and systems for firearms.

Hitting a target

Using a firearm counts as an Action, and takes one phase to execute. The attacker's skill in his chosen weapon, plus his reflex characteristic, plus 3d6 forms his Attack Total (or AT). The defender's dexterity characteristic, plus their ranged Evade Skill, plus 10 form his Defense Total (or DT). If the Attack Total equals or exceeds the Defense Total, the bullet will hit the target, and therefore damage must be resolved (see Appleseed Damage)

Hit Locations

Appleseed Fuzion is meant to be used with the hit location rules used in the core Fuzion rules. It adds a depth of realism, and armor and cyberware is dependant upon hit locations.

Range

Firearms, unlike melee weaponry, allow a combatant to strike an opponent at a distance. This is perhaps the greatest advantage of guns. Each type of gun possesses a range at which they may fire at and still be able to hit with at reasonable accuracy. The farther out the target is, the more difficult the shot becomes, inflicting a penalty on the attacker's AT.

Range is broken down into 4 categories: Short, Medium, Long, and Extreme. Each category measures a set distance. The distance between the shooter and the target determines which range category the attack falls under. Consult the table below for ranges by weapon.

	Short	Medium	Long	Extreme
Firearm	Range in Meters			

Hold-out Pistols	0-5	6-15	16-30	31-50
Light Pistol	0-5	6-15	16-30	31-50
Heavy Pistol	0-5	6-20	21-40	41-60
SMG	0-10	11-40	41-80	81-150
Shotgun	0-10	11-20	21-50	51-100
Sporting Rifle	0-100	101-250	251-500	501-750
Sniper Rifle	0-150	151-300	301-700	701-1000
Assault Rifle	0-50	51-150	151-350	351-550
Anti-Tank Rifle	0-100	101-250	251-500	501-750
Machine Gun	0-75	76-200	201-400	401-800
Assault Cannon	0-100	101-300	301-900	901-2400
Grenade Launcher	5-50	51-100	101-150	151-300
Missile Launcher	20-150	151-450	451-1200	1201-3000
Thrown Knife	0-(STR/1.5)	To STR x 1.5	To STR x 2	To STR x 3
Shuriken	0-(STR/1.5)	To STR x 1.5	To STR x 3	To STR x 5

The range category an attack falls into determines a modifier to the AT of the attack. At Short range a weapon suffers no penalties to attack. At Medium range, all attacks suffer a –2 penalty to hit. At Long range, all attacks suffer a –4 penalty. Finally, at Extreme range, all attacks suffer a –6 penalty to hit. No weapon may shoot beyond its maximum Extreme range.

Line of Sight and Cover

In order to fire upon a target with a firearm without penalty, a character must have a direct line of sight. Otherwise, the attack must be made a penalty. The severity of the penalty increases as it becomes harder to see a target. Lighting, weather conditions, and cover play the most direct effect on line of sight.

```
Condition                        Modifier
Weather Conditions
Fog                              -2
Rain                             -2
Storm                            -4
Snow                             -4
Light
Dawn/Dusk                        -1
Nighttime                        -3
Complete Darkness                -5
Cover*
Half of body exposed             -2
Quarter exposed                  -4
10% or less exposed              -7
Total cover                      impossible
```

An alternative to shooting around cover is shooting through it. However, the process is complex. First, an attack roll must be made to hit the cover. The DT of the action is dependent on the range category.

Short Range:	4
Medium Range:	8
Long Range:	12
Extreme Range:	16

After the target is hit, the cover must be penetrated. To determine whether the cover is penetrated, the attacker makes an Attack Roll, using the weapon's Penetrating Damage Capacity as the AV, and modifying the roll by the range modifier (see Penetration). The DT of the roll is dependent on the

thickness and material of the cover. The GM should assign the difficulty, with 10 being light cover, and 40 being a concrete wall 6 inches thick. Even higher DTs are possible.

If the bullet does penetrate the cover, the attack will hit if the attacker passes a simple attack roll versus the defender.

Rate of Fire

The majority of firearms used in the world of Appleseed are semiautomatic or better. Though bolt action rifles and revolvers are still in use, for the most part, the automatic weapon dominates. Many weapons are capable of firing multiple times in a single second. This is represented by a weapon's Rate of Fire, or ROF. For every point of ROF, the gun may fire 1 bullet per phase. Bullets may be fired at a single target, or at multiple targets, though for every extra target, all ATs suffer a –1 penalty to hit.

Recoil

When a gun is fired, it hits back at the shooter with a considerable amount of force. All guns have a parameter known as Recoil. Recoil is a numerical rating, and for every bullet beyond the first fired by the gun, this penalty is applied as a penalty to hit. The number may be a fraction, and thereby only apply a penalty after several bullets are fired. The penalties are cumulative. If a weapon has recoil rating equal to or greater than the character's strength, the penalty applies to the first shot made as well.

The penalties can be compensated for with a high strength score. Consult the table below. The modifier listed is constant with all recoil penalties, though it will not increase the accuracy of a weapon.

Strength	Recoil Compensation
0-5	None
6-8	+1
9-11	+2
12-15	+3
16+	+4

Example: Deunan fires 2 shots from her Colt 2097 "Gover". The Gover has Recoil of 2. The first shot suffers no penalty, and the second shot suffers a –2 AT penalty. Her strength is only 5, and therefore she gains no recoil compensation. If she was able to make a third shot, the third shot suffers a –4 penalty.

Automatic Fire Weaponry

Fully automatic weaponry, often possessing high ROF, is capable of special fire modes. These modes represent a SMG or machine gun's ability to belt out large quantities of lead, without having to make separate attack rolls for each bullet. Guns are classified as having one or two special fire modes. The two modes are Burst Fire, and Full Automatic Fire. A separate mechanic handles each, and not all guns are allowed either types of fire.

Burst Fire: Burst Fire, or 3RB, is a simple three round burst, and is common among SMGs. The attack is made at x3 recoil penalty, regardless of whether the weapon has fired yet or not. Also, this penalty increase is in addition to any already in effect, and can also be accumulated on with additional shots. Roll to hit as normal, and on a hit, roll for penetration at +2. If the attack penetrates, the target is hit by 1d3 (1d6 divided by 2) bullets, and is damaged normally by all of them.

Full Automatic Fire: Full Automatic Fire, or FA, allows the attacker to belt out as many bullets as the ROF of the gun with one simple system. At least three bullets must be fired using FAF. For each round fired, the gun is at a penalty equal to its recoil. Roll to hit normally. On a success, the first bullet hits the victim. For every additional point of success, another bullet hits. Obviously, the target cannot be hit with more bullets than where fired at him. Tally up the number of bullets that hit, and then roll for Penetration. For every bullet beyond the first that hits, the penetration roll is at +1 AT. Determine the number of bullets that

penetrate in the same manner used to determine how many hit the victim. Finally, after having found how many rounds hit, roll for damage normally.

Full Automatic Fire may be used to hit multiple targets by "walking" the fire across the targets. For every meter between two targets, a bullet must be fired between them, and is lost. The bullets fired at the targets may be divided any way the shooter sees fit. For every target beyond the first, all attacks are at –1 penalty. Handle recoil against each one separately. That is to say, if you are firing 10 bullets at 2 targets less than a meter apart, and your gun has Recoil of ½, and you fire 6 bullets at the first target and 4 at the second, then the first target suffers a –4 penalty to hit (6 * .5 + 1), and the second target suffers a –6 penalty to hit (10 * .5 + 1).

Shotguns

Firearms that fire shot based rounds are handled differently than other firearms. The shot extends out in a cone when fired, covering a large area of effect. This allows the shooter to hit multiple targets with one pull of the trigger, but with reduced effectiveness as the shot spreads further out.

Shotguns all have a Choke Rating. The Choke Rating measures how quickly the shot spreads. Low ratings mean faster spreads. When the shot leaves the barrel, the shot will hit everyone within a meter wide column. After the shot moves out as many meters as the Choke Rating, the column spreads out a half meter in both directions, and so on, the cone getting larger and larger. Each increment of Choke Rating out, and column increase, is known as a step.

For every step out beyond the first, the AT to hit a target receives a +1 bonus. However, the PDC and KDC of the attack drop by one dice. However, once both the PDC and KDC are reduced to zero, the shotgun has reached its maximum range.

Appleseed Damage

While the Appleseed Fuzion system uses a similar damage system to standard Fuzion, there are some key changes that have been made so as to capture the feel of a gritty, realistic cyberpunk/police drama/conspiracy game. Characters still possess the same 'Stun Points' and 'Hits' derived characteristics, but do not make use of any special derived characteristics.

Damage and Damage Classes

As in Fuzion, Damage is an abstract measure of punishment that can be dealt and taken by characters before they are killed, maimed, or otherwise incapacitated. The potential damage an attack can do is measured in six sided dice, or D6s. These D6s represent a unit known as the Damage Class (or DC). However, unlike in regular Fuzion, each Damage Class is specified as dealing a specific type of damage. There are three types of Damage Classes: Kinetic (KDC), Penetrating (PDC), and Stun (SDC). Weaponry may have multiple Damage Classes, each one representing a different type of damage.

Kinetic Damage is damage incurred by being hit by weaponry moving with great inertia. This damage hurts a character by smashing bones, knocking them around, and bludgeoning. Kinetic Damage, when dealt, is subtracted from the victim's Hits. When a character loses all of his hits, he will be incapacitated and die soon after, or die instantly, at the GM's discretion.

Penetrating Damage is damage incurred by weaponry that attempts to break the target's flesh and rip through organs, muscles, and flesh. This damage will kill a foe through shock, organ failure, blood loss, and the like. Penetrating Damage is subtracted from the victim's Hits. When a character loses all of his hits, he will be incapacitated and die soon after, or die instantly, at the GM's discretion.

Stun Damage is the most benign form of injury a character may suffer. It represents damage incurred from being pushed around and having the wind knocked out of you. Stun Damage subtracts directly from a character's Stun Points. If a character loses all of his stun points, he simply falls unconscious.

Dealing Damage

When a hit is incurred on an opponent, damage is determined simply. The attacking character rolls 1D6 per DC, and then totals up the results of the rolls. This is how much damage is inflicted. It is subtracted from either the victim's Hits or his Stun, as appropriate.

Stun Damage

Stun damage is subtracted from the victim's Stun Points. However, before doing so, the Victim may subtract his Stun Defense rating from the damage inflicted. In this way, damage done by stun attacks may be reduced or voided.

Stun Rollover

If a character looses all of his stun points and is subsequently knocked unconscious, any additional stun damage is converted to Kinetic Damage at 1/5th rate. This includes stun damage in excess of the damage needed to knock a character unconscious, so, therefore, a very strong punch to the chin of a weakened man can kill him, if the dice roll is high enough.

Hand to Hand Damage

Damage inflicted by striking an opponent with one's body incurs Stun Damage. A character's punch, kick, head-butt, or whatever the attack may be, has an SDC equal to the Strength of the attack.

Stunned

If a character looses more than half of his Stun Points or Hits to Kinetic Damage in one round of combat, he is Stunned. A Stunned character cannot act during his next combat phase, and suffers a 5 point penalty to all primary characteristics. A character will recover by the subsequent round if he passes a roll with an AV equal to his Recovery derived attribute, against a DT of 25.

Melee Weaponry

Melee weaponry has a set DC rating, but inflicts an additional die of damage for every point of Strength a character has in excess of the weapon's strength requirement to wield. However, a weapon's modified DC cannot exceed double its standard DC rating.

Wound Penalties

As a character sustains more and more wounds, it becomes more difficult for them to perform successfully. For every (BODY x 1.5) points of damage they sustain, they suffer a –1 penalty to all actions.

Damage and Hit Locations

Note: Unarmed combat and stun damage is non-location specific

Damage is hit location specific. The way you are affected by damage is determined by what hit location is hit. Since most attacks hit the torso by default, this is usually a mute point. Hits to the torso inflict damage normally, and when the character is out of Hits, the victim collapses, near death. However, hits to the Arms, Leg, and Head are handled differently.

Hits to the Arms deal half damage. Further, wounds to the arms should be noted separately. Wounds to the arm have a separate Wound Penalty based on damage done exclusively to it, in addition to wounds inflicted on the body as a whole. For purposes of determining this penalty, the arm's Body rating is halved, round down. Any wound penalties will only affect the actions involving the wounded limb. Legs use the same mechanics. A character cannot die from wounds to the arms or leg, unless they sustain damage equal to the character's (BODY x 5) in a single blow. Such a wound usually ends in the loss of the arm even if the character survives.

Hits to the head are considerably more dangerous. Damage is double, and the Wound Penalties are applied normally. However, if a character takes more damage than his (BODY x 2), then they must make a roll of constitution versus (the damage done), or die instantly. If they pass the roll, they fall unconscious.

Armor

If a character intends to go into combat situations regularly, he better wear some armor if he intends upon surviving the ordeal. Armor is used to reduce the damage a character receives from attacks, or to negate it out right.

Armor possesses two parameters: Penetration and Soak. Each represents the armor's ability to stop particular forms of damage. Penetration is used to stop Penetrating damage, and Soak reduces the damage dealt by both Kinetic and Stun damage types.

Armor vs. Penetrating Damage

As soon as an armored character is hit by an attack, the first step towards determining damage is to see whether or not the attack penetrates. If the weapon possesses a PDC, make an attack roll, using the PDC rating of the weapon as the AV for the action. Modify it by any bonuses or penalties possessed by the gun and the bullet. The DT of the action equals the armor's Penetration rating. Typically, armor is rated from 15 (mediocre) to 30 (nearly impenetrable with small arms fire). If the attacker succeeds, the attack deals normal damage, while if he fails,   no damage can be done with PDC.

Armor vs. Kinetic Damage

If someone wearing armor is hit by an attack that deals Kinetic damage, the damage is simply reduced by the Soak rating before it is applied. If the final amount of damage dealt is equal to or less than zero, the attack has no effect and is completely absorbed by the armor.

Armor vs. Stun Damage

Armor functions in the same way against Stun Damage as it does against Kinetic Damage. It functions in addition to the character's stun defense.

Multiple Layers

It is possible to wear some types of armor over others, and cyborgs have a natural armor in addition to any protection provided by external gear. In such cases, use the following models for resolving Penetration and Soak.

Soak is simple to resolve. The sums of all the armor Soak ratings are added together, and counted as such. There is nothing more to it.

With Penetration, things get tricky. Roll to penetrate the outermost armor first. If the penetration succeeds, and then roll against the next layer at –2 penalty. Continue to do so, increasing the penalty by –2 every time, until all armor is penetrated or the bullet is stopped.

Armor and Hit Location

Most armor is meant to protect the chest, abdomen, sides, and back areas, and occasionally the arms, shoulders, neck and thighs. Therefore, **armor is ignored when the shot hits an unprotected location**. Resourceful gunmen will make called shots against unarmored hit locations in order to bypass a heavily reinforced opponent. Of course, this isn't usually an option with cyborgs…

Over Penetration

Some bullets hit with such high velocity that they rip clean through without causing much damage. This is known as Over Penetration. Over Penetration occurs if the total of the PDC and Penetration Modifier of the attack exceeds the character's body rating plus 4 plus 1 for every 8 points of Penetration (inclusive) the character possesses in armor. If an attack Over Penetrates, the shot cuts clean through, dealing less damage. The character takes one less point of damage for every 1, 2, or 3 rolled on damage, and the character may not take more than (BODY x 5) points of damage on a single hit.

Example: Deunan is hit in the shoulder by a HV round that has a PDC of 4 and a Penetration of +8. This easily penetrates her advanced kevlar-vest which offers a Penetration of 16. Deunan only has a BODY of 5. The sum of her BODY, 4, and 1/8th armor is 11. The attack's total Penetration AV is 12. The attack over penetrates, but just barely. The attack roll is 2, 3, 3, 6: normally an average roll. However, three rolls were below 4, so the total damage is 11. Duenan suffers a measly 11 hits.

Note that this is a very important rule with some types of ammunition (specifically Hyper Velocity Rounds), which will almost always over penetrate soft targets.

Multiple Damage Classes

Very few weapons incur only one type of damage. However, many weapons posses two Damage Classes. If so, one or both Damage Classes will be used. The effect depends on which types of damage class a weapon possesses.

Weapons that possess one of the lethal damage classes (Kinetic or Penetrating) and a SDC roll for both damage classes individually, and apply damage to but Stun Points and Hits as normal. However, in this case, such a weapon will never deal less Stun damage than lethal damage to Hits. If the SDC roll is less than the lethal damage done, raise it so their values are equal before applying armor and Stun Defense.

More commonly, however, a weapon will possess both Penetrating and Kinetic DCs (this includes most firearms and bladed weapons). If this is the case, resolve both types of damage separately, and then void whichever result is lowest, taking the highest damage roll. If a character looses more than half of his Hits from an attack that possesses both a PDC and a KDC, he is still stunned for the round.

Knockback

One inevitable effect of heavy damage is that it will tend to knock and batter a recipient about, possibly incurring further damage, or at least knocking the victim prone. After determining damage, Knockback should be determined. Generally, the greater kinetic energy an attack possesses, the more likely the attack will force a Knockback on the victim. An attack can generate a Knockback even if the attack dealt no damage.

To determine if an attack caused a Knockback, check the DC ratings of the attack. A weapon that only possesses a PDC will not cause a Knockback. Such a weapon only rips and cuts through a victim, and applies very little energy to him. However, if the weapon possesses a KDC or an SDC, there is a good chance the weapon may cause a knockback.

If the natural KDC or SDC (whichever is higher) of a weapon, plus a roll of 1d6, is greater than the defender's Body attribute, then the target has been either knocked back, or knocked over. Subtract the Body Attribute from the Knockback total, and for every point beyond the first, the victim is propelled backwards half a meter. However, if the value equals one, the attack only knocks the victim flat on his back.

Appleseed Vehicle Plug-in

What would a good cyberpunk anime be without powered armor and mecha? In the world of Appleseed, common forms of mecha are Landmates, gigantic powered armor that mimics the motions of their pilots through a complex "master/slave system". The world of Appleseed is also rife with fantastic vehicles: sports cars, hovering gun platforms, and motorcycles made to fit 9 foot tall cyborgs are all common place. These rules provide the rules a character needs to pilot, modify, and use a vehicle.

Rules of the Road 101

In order to pilot, drive, or otherwise use a vehicle, the driver must possess the skill needed to operate the vehicle. For example, you need Drive Car to drive a sports car, or Pilot Submersible to operate a submarine. If the character does not possess the needed skill, he can try to anyway, but will suffer a penalty in doing so. The more complex the vehicle, the more difficult the penalty. The penalties are:

VEHICLE	PENALTY
Car, Motorcycle	-2
Aircraft	-4
Helicopter	-6
Hover vehicle	-4
Landmate	-2
Ship	-4
Submersible	-6

So long as the character possesses the skill needed to pilot the vehicle, he is assumed to be able to perform basic actions involving the vehicle without having to make any dice rolls. For example, a character with the Drive Car skill can start up a car, pull out of the driveway, drive downtown, and parallel park without having to make any dice rolls. However, attempting a difficult maneuver requires that the character makes a dice roll in order to maintain control of his vehicle. All Vehicle Rolls use a roll of Technique + (Vehicle Skill) + 3d6. The difficulty is determined by the complexity of the maneuver, and the conditions under which the character is driving. A difficulty of 15 would be relatively easy, while a difficulty of 30 would be extremely difficult to pull off.

Vehicle Sizes

Every vehicle is classified by its size. The Size Rating is a major characteristic of a vehicle. The Size Rating is classified with a word-based weight category.

The Size of the vehicle determines the possible weight categories it may fall under. Each Vehicle Size has a range that the weight of the vehicle will fall under. The weight is how heavy the vehicle is when fully loaded: armor, systems, components and all. The weight is used in collisions and in combat for determining damage and damage resistance. The Size also supplies a factor used to determine the Vehicle's main body's Structural Damage Points, or SDP. SDP is the equivalent of "Hits" for vehicles. Finally, Vehicles Size also determines a modifier to hit the vehicle with ranged weapons.

What follows is a table of various vehicle sizes, and their related attributes.

Vehicle Size	Weight	SDP Divider	To Hit Modifier
Ultralight	400 to 750 KG	15	+0
Superlight	750 to 1500 KG	25	+1
Lightweight	1500 to 2500 KG	40	+2
Mediumweight	2500 to 7500 KG	60	+4
Heavyweight	7500 to 15000 KG	85	+6
Ultra Heavy	15000 KG+	110	+8

Vehicle Components

Like human beings, Vehicles consist of several components that allow it to function. For the purposes of game mechanics, these components make up locations where the vehicle may be struck. All vehicles possess at least one Component. This Component is the main body, and most vehicles have several other components as well. Each Component has it's own Structural Defense Point rating, it's own armor, and it's own functions. Together, these components form a hit location table similar to those provided for characters. Whenever the vehicle is hit, roll for its hit location, and that component is damaged. The damage is dealt to the component's SDP. When all the SDP is gone, the component is destroyed, taken out, or otherwise made non-functional.

Vehicle Characteristics

Vehicles possess several characteristics in addition to their Vehicle Size. These characteristics are inherent to the vehicle. They can be modified by changing a vehicle's Systems (explained later). Otherwise, they are permanent.

Handling: Handling represents how easy it is to use the vehicle and how maneuverable the vehicle is overall. It modifies all maneuver rolls made by the character.

Magnitude: The vehicle's magnitude is the length of its greatest dimension in meters. It is used in conjunction with Weight and the Vehicle's SDP Multiplier to determine how many Structural Damage Points a vehicle possesses.

SDP: This is a very important characteristic: it measures how much punishment a vehicle can suffer before it is destroyed. Each vehicle has a maximum allotment of SDP it may possess between its components. To find the vehicle's SDP, Divide the vehicle's weight by it's SDP divider, and multiply by the magnitude. Round to the nearest multiple of 5. This is the vehicle's total allotment of SDP. This allotment is divided among all of the vehicle's components.

*Example: The Guges-D Landmate is Olympus' premier urban strike Landmate, and weighs in at only 1.49 tons, or 1490 kg. The Vehicle is a Superlight, and therefore has a SDP Divider of 25. Finally, it stands roughly 9 feet tall, giving it a magnitude of 3. It's final SDP allotment is 180 (1490 / 25 * 3 = 178.8). This SDP is divided into a 45 SDP main body, 25 SDP left and right slave arms, two legs with 30 SDP each, a cockpit with only 10 SDP of protection, and a sensory array in the head with 15 SDP. Of course, the vehicle is protected by armor…*

While this serves as a general formula for a vehicle's SDP, some vehicles may have higher or lower SDP based on building materials, construction techniques, and the like.

Speed: This measures how fast the vehicle may go. It measures speed in kilometers per hour. It contains two ratings: a safe speed, and a maximum speed. The safe speed is the speed in which the vehicle can operate normally without any maneuvering rolls being required under normal circumstances. Above the safe speed, even turns require a maneuver roll.

Airplanes possess a third speed rating. This is the minimum speed the craft may move at without stalling and falling out of the sky.

To convert KPH to meters per second, divide the speed of the vehicle by 3.6, and round up. Therefore, a vehicle with a safe speed of 60 kilometers per hour may move 17 meters per second and still be moving at a safe speed.

Acceleration: This serves as an "X" factor in the acceleration maneuver. For every point a character succeeds a Driving roll at a difficulty of 12 by, they may increase their current speed by as many kilometers per hour as the vehicle's Acceleration rating (in short termed action, this increases the speed of the vehicle by 1 meters per second per 4 kph the vehicle would have accelerated by). A vehicle may never increase its speed by more than a quarter of it's maximum speed in a single phase.

Breaking: Breaking is the opposite of Acceleration; it is used to decrease the speed of a vehicle. It uses the same mechanic, but in reverse. A vehicle may never break more than it's safe speed in a single phase.

Fuel: This characteristic represents the "endurance" of the vehicle. Every 10 minutes of traveling consumes 1 point of Fuel. If a vehicle has no fuel, it loses its ability to move.

Pilot Visibility: How well the pilot can see all around him from his cockpit. This is represented as a modifier to Perception rolls while driving. It also may be noted that the vehicle has zero natural visibility; that is, there is no way to see out of the vehicle without the aid of sensors.

Cargo: How many kilograms of cargo the vehicle can carry.

Crew: The number of skilled users needed to safely operate the vehicle.

Passengers: The number of passengers the vehicle is meant to be able to carry.

Systems

In addition to Components, vehicles possess Systems. Systems are the parts to the component that make it work. Systems include motors, the fuel feeds, ammunition dumps, heat sinks, Hermes turbines, and the like.

Systems have SDP ratings, just like the components that house them. Each System has a percentage rating, which is multiplied by its housing Component's SDP, and rounded up to the nearest multiple of 5.

Whenever a Component is damaged, each damage dice is assigned to a different System. The damage dice are divided evenly, with any extra dice being assigned randomly. The damage dealt by these dice are also applied to their matching System. When a System loses all of it's SDP, it is destroyed.

Sensors

While the human eye is perfectly fine in most circumstances, in some cases one must rely on electronic aids while using a vehicle. A Sensor is a type of System. They are used in Perception rolls for various purposes. There are two classes of Sensors: observational and reactive. Observational sensors provide back information obtained constantly, while reactive sensors scan for conditions and then alert the driver when they occur. Each sensor has 4 characteristics: what they detect, the range in which they detect, the degree of coverage they give, and any modifiers to Perception rolls made with the system.

Armor

Armor, like a Sensor, is also a system. They provide a Penetration Rating and a Soak to the component. However instead of being damaged randomly, they receive ¼ damage from any attack that penetrates the armor. Once the armor is destroyed, it provides no further protection.

Appleseed Computers

Just as the fields of medicine, genetics, and firearms have increased by leaps and bounds, computers are quicker and more powerful than ever. Computers serve in the everyday lives of millions, and Olympus is practically run by computers. Others will use computers for crime and black ops; hacking has become more complicated than ever.

This plug in primarily provides rules for using computers with and against network systems, gathering information, providing "over-watch", and the like. Hacking in this RPG is "low tech." That is to say, hacking does not encompass destroying virtual dragons in a polygon-strewn environment, or anything silly like that. Rather, hacking is done with a computer, a keyboard, and some nasty little bits of code.
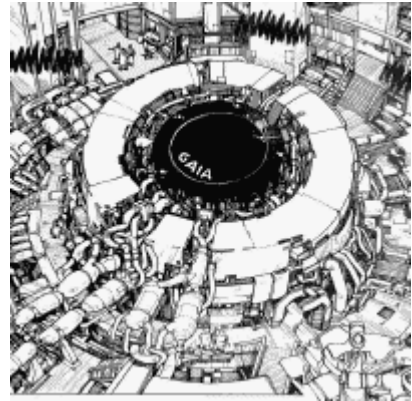
((definitely a work in progress.))

Appleseed Cybernetics

In a world of high technology, floating gun platforms, android police, and nanotechnology, it was inevitable that man and machine would be fused. Cybernetics has become relatively common and is generally accepted, and it used for a variety of purposes. It is often used for medical purposes: internal devices that distribute medicine, and replacement limbs, though more and more cybernetics are being used for occupational purposes: vocal cord microphones for singers and entertainers, and built in cortex CPUs for scientists and mathematicians. Cosmetic modifications, such as height extensions, are also gaining popularity. And just as cybernetic devices are becoming more and more common in the private sector, they have already become a staple of the professional soldier. Tech-savvy warriors implant reflex heightening nerve alterations, and nodes that provide resistance to poison. Some radicals go so far as to even replace their bodies with a full cybernetic body. Whether you will use cybernetics is a question of ambition and ethics.

Man, Machine, and Society

Cybertechnology and its applications become more common every day. Even so, only one in 15 humans will ever in their life have a piece of cyberware installed (though Bioroids are much more likely to). And even this figure only takes into account those living in "civilized" parts of the world. In Badside, only mercs will possess cybernetic implants.

Humans and society in general frown upon non-discrete, obvious cybernetics, especially on other Humans. The simple fact is that isn't pretty to have a large metal arm grotesquely grafted onto a stump of a shoulder. The general ideology is all or nothing: become a full cyborg or don't get artificial limbs. Would-be wired individuals will have a difficult time finding cyber doctors willing to install a cybernetic arm, unless out of necessity. Internal cyberware, though, is perfectly acceptable…

Finding a Cyberatrist

The dawn of cybernetics has created whole new fields of medicine and a new form of medical specialist: the cyberatrist. Often referred to as a cyber doctor or a 'chop-doc', these individuals specialize in the installation and maintenance of cybernetics, as well as the conversion, diagnosis, and care of full cyborgs. Any developed area will generally have at least one qualified cyberatrist; in Olympus, there are

Cybernetics at Character Creation

Humans and Bioroids have the option, at character creation, to have cyberware installed. Characters who do so must weigh the benefits with the drawbacks. Cybernetics cost a character valuable Ops, but grant benefits. Cybernetics will give you an edge in combat, but lead to health and economic complications. Cybernetics will often bear social impediments as well. On a whole, it is a decision that must be made carefully.

Cybernetics Related Derived Characteristics

Any character that wishes to add on cybernetic parts must note two new Derived Characteristics: Flesh and Parts Maintenance.

Flesh measures exactly that: how much of the character is still flesh, bone, muscle, and organs. This attribute is rated from 10 to 100. A character with 100 Flesh has no cybernetic modifications, and a

character with 10 Flesh has nothing but his brain in a full cyborg body. All non-full cyborg characters begin with 100 points of Flesh. Flesh is lost when installing cyberware. A character may not have less than 50 points of Flesh without undergoing a full cyborg body transfer. The lower a character's Flesh, the more susceptible the character is to rust, infection, and other nasty things. For every 25 points of Flesh one loses, a character will suffer a –1 penalty to Presence.

Parts Maintenance measures how often the character needs calibration and repairs, and how expensive the cybernetic systems are to maintain. Installing cyberware adds a point value to the maintenance characteristic. This characteristic affects how often the character will need maintenance, and how much it will cost.

Flesh and Weight

Cybernetics is heavy, as are full cyborgs. For every point of flesh lost beyond the first 10, a character gains 3 pounds. Full cyborgs may be even heavier.

Overstress

All cybernetic installations have a Stress Rating. This value represents how well the piece holds up under stress, unforeseen difficulties, and combat situations. The rating ranges anywhere from 15 (finicky and unstable) to 45 (extremely reliable). Whenever the cyberware is used in action that possesses a DT greater than or equal to the Stress Rating, there is a chance that the cyberware will be adversely affected.

Whenever a piece of cyberware is overstressed, roll 3d6, unmodified, with the defense total being the character's own Parts Maintenance characteristic. If he passes the roll, the piece of cyberware is still AOK. Otherwise, something nasty may have happened. Take the value the wired character failed by, and compare the value on the cyberware's Haywire table. All cyberware has a Haywire table, and it determines what negative effects befall the cybered character.

A successful Cybernetics roll by a second person can fix cyberware problems, with a Surgery roll before if the system is internal. Each piece of cyberware lists the going rate for a repair operation, plus the difficulty of doing so. Of course, a friendly PC or NPC can try to repair it, but this is, of course, risky. The cost of doing so is 1/10th the listed repair cost.

Paying for Cyberware

Cyberware costs money, both to install and especially to maintain. At character creation, spending OP represents this. Each piece of cyberware costs a set OP cost for the basic installation. A piece of cyberware may also have a cost modifier for installing on a non-full cyborg. Other costs, as well as when the cyberware needs to have a check up/replacement may be listed in the description of the piece.

Maintaining Cyberware

A character will need to go in for "check ups" on each piece of cyberware once a season (12 weeks) per point of Parts Maintenance the system possesses. Therefore, a system with a Maintenance value of 6 needs to be checked up on every 2 weeks (12 / 6 = 2). The cost of a check up is generally 1/20th the cost of the System's monetary cost. After the first week a piece of cyberware is neglected, the system is overstressed whenever it is used.

Library of Cyberware Implants

What follows is a catalogue of common cybernetics. Cyberware is broken into Systems and Sub-Systems. Generally, you purchase a System, and then Sub-Systems to add onto them. Sub-Systems

may be bought individually, but have very limited effects. It is generally more beneficial to buy the System first, as it reduces later costs, repairs, and Flesh Lost.

Notation of systems follows a set format. This format is explained below.

Name of the System

Cost: This lists both the OP required to acquire the system at character creation, and the monetary cost of it, if it is to be purchased later with money earned in game.

Maintenance: This lists the Parts Maintenance value of the system.

Stress: The Stress rating of the System is listed here. It also lists what will trigger overstressing, using one-letter abbreviations.

Flesh Cost: How much Flesh lost by installing this system in noted here.

Effects: This lists what exactly the cyberware does. This section, while hard to discuss in detail here, is generally the most verbose part of the System's rules.

Haywire Table: This lists the possible malfunctions that can occur when a system is overstressed. It will also list the costs of repairing the problems as well.

Subsystems: This lists all available subsystems. Subsystems are listed in terms of statistics on a chart, and their effects follow. Subsystems may be bought regardless of if the parent system is possessed. However, if the parent system is possessed, the OP cost is halved, and monetary costs are reduced by 20%. Half reduces flesh penalties, round down and then by one. Therefore, a subsystem with a flesh cost of 4 has a modified flesh penalty of 1 *(4 / 2 −1)*. Maintenance ratings are also reduced in the same method. Subsystems noted in Italics cannot be purchased without their parent system. Their OP and monetary costs are not modified, and likewise neither is their flesh penalties or maintenance ratings.

And now, on to the meat and bones of cybernetics…the actual cyberware.

Cybernetic Eyes

Cost: 2 OP / $15,000
Maintenance: 3
Stress: 20
Flesh Cost: 4 points
Effects: This common implant replaces both eyes with two artificial eyes, constructed to look completely normal and undetectable by normal observation. These eyes offer normal 20/20 vision, and can be outfitted with several upgrades. The eyes themselves are cheap to manufacture, costing only around $2,000 each. What really makes the eyes as expensive as they are is the wiring and system that allows the cyber eyes to feed visual stimuli to the brain.

In and of themselves, Cyber Eyes provide no special powers. They act primarily as a platform for additional upgrades. The other eye modifications are either installed as systems within the cyber eye or as modifications and wiring within the eye. While they offer a user perfect human vision, they suffer from a drawback. They tend to malfunction when exposed to extreme flares and dust.

By default, cybernetic eyes are the same in appearance as normal eyes, and cannot be easily distinguished. Obvious ones are available at ½ OP / 2/3 Monetary cost.

Haywire Table:

Loss By	Malfunction
1-4	Heavy Static. Any perception or attack rolls made by the afflicted character are at –3 penalty, until the static goes away. The static will clear up in 1d6 minutes, but will not clear up if the character has not made their last scheduled maintenance. *(no cost to repair, difficulty 15)*
5-8	Temporary Blackout. The character is effectively blinded and must operate in complete darkness. They will get their sight back in 1d6 minutes, but will not if the character has not made their last scheduled maintenance. *(no cost to repair, difficulty 15)*

9+   the eyes go completely offline, and will not function until repaired. *($750 to repair, difficulty 20)*

Subsystems: Camera, Display Link, Flare Compensation, Low-Light, Protective Covers, Thermographic Imaging, Video Feed, Video Recorder, Vision Magnification,

Subsystem	Cost	Flesh	Maintenance	Stress
Camera	1 OP / $5000	3	2	25 (d,f)
Display Link	.5 OP / $5000	2	3	15 (o,c)
Flare Compensation	.5 OP / $3500	2	1	25 (f)
Low-Light	.75 OP / $2000	1	1	25 (f)
Protective Covers	.5 OP / $500	0	2	20 (h,c)
Thermographic Imaging	1 OP / $7500	3	1	25 (f)
Video Feed	1 OP / $7500	4	2	20 (c)
Video Recorder	1.5 OP / $7500	4	2	25 (d,f)
Vision Magnification	1 OP / $5000 per level	2 per level	2	25 (o)

c: electronics failure/computer glitch; d: dust; f: flare; h: extreme heat; o: overuse

Cybernetic Eye Subsystems

Camera: An eye-implanted camera can take pictures from the eyes, saving through a Comp Link or to Internal Memory. 50 High-resolution 8" by 10" photos take up 1 DP, and reducing size, color and resolution can save space. .5 OP / $500 to allow for low light photos, flare compensation, or ultra violet pictures.

Display Link: Simple images or text can be displayed in the character's sight, with the display supplied from Internal Memory, or a Comp Link.

Flare Compensation: Flare compensation protects the user from strong lighting and sudden flashes of light. The difficulty for the character to be blinded by light is +5 DT. The Cybernetic Eyes have a +10 Stress rating against flare-induced difficulties.

Low Light: The user can see clearly in the absence of light, and suffers no AT penalties due to darkness. However, they are still "blinded" by complete darkness.

Protective Covers: These babies cover the eyes with a thin layer of datafilm, protecting them from dust, particles, extreme lighting and the like. The eyes receive a +5 Stress rating bonus.

Thermographic Imaging: This modification allows the character, when the system is activated, to see the infrared spectrum, and therefore in complete darkness. However, extreme heat can cause glare.

Video Feed: Like a display link, the video feed allows the character to "play" videos on their eyes. These movies can be played from Internal Memory or Comp Links. A minute of medium-resolution 8" by 10" photos takes up 1 DP, and reducing size, color and resolution can save space.

Video Recorder: This is the opposite of a video feed, allowing a character to record videos to the same sources and at the same sizes and rates as a Video Feed.

Vision Magnification: This handy little system allows a character to zoom in on objects, allowing him to see farther and clearer. This system is rated from 1 to 3. Each point of Vision Magnification allows a character to see 50% farther, and lets them count themselves as 1 range category closer to their target for purposes of to hit penalties, regardless of actual distance.

Cybernetic Arm Replacement

Cost: 3 OP / $20,000 for a hand, 5 OP / $45,000 up to the elbow, and 8 OP / $70,000 for a full cybernetic arm.

Maintenance: 3 for a hand, 4 for up to the elbow, and 6 for a full arm

Stress: (Strength of the Arm) x 5

Flesh Cost: 4 for a hand, 8 for up to the elbow, and 15 for the whole arm.

Effects: This system replaces a whole or part of one of the character's arm with a replacement made of metal coils and wires that on a whole nearly perfectly resemble a perfectly toned human limb, minus flesh. They are coated in datafilm, and despite looking obvious and mechanical, are perfectly articulate and are as sensitive as true human limbs.

A cybernetic arm has strength independent of the rest of the character. Its base strength equals the character's strength, and otherwise cannot be augmented in non-full cyborgs. This is due to the fact that it would take massive amounts of restructuring to allow for extra strength in an

arm without it dislocating the arm and shoulder. However, it can be modified with additional upgrades if the character is a full cyborg. Many other upgrades and gadgets are also available. Using them with excessive force or putting them under unrealistic weight can stress the arms.

Haywire Table:

Loss By	Malfunction
1-4	The hand clamps up, with one or more parts jamming. Roll 1d6, and for each point, one finger or the wrist jams, unable to move until fixed. Note that this is the only malfunction that can occur to hand-only replacement. If a worse malfunction occurs, the entire hand automatically jams up. Any actions requiring fine dexterity is at a –1 penalty per part jammed. *($150 per component to fix, 15 DT)*
5-8	The elbow jams, and cannot move, making any actions involving the arm suffer a –2 penalty. *($450 to fix, 20 DT)*
9+	The entire arm jams, and cannot be used at all. It remains jammed until repairs can be performed. *($700 to fix, 20 DT)*

Subsystems: *Armoring*, Arm Blade, Cybernetic Claws, *Device Casing*, *Double Replacement*, Fingertip Compartment, Internal *Handgun*, *Internal SMG*, *Strength Enhancement*, *Synthetic Skin*

Subsystem	Cost	Flesh	Maintenance	Stress
Armoring	1 OP / $5000 a level	0	1	30 (w)
Arm Blade	.5 OP / $1000	3	1	25 (a)
Cybernetic Claws	.5 OP / $1500	3	1	20 (a)
Device Casing	Special	0	Special	20 (o)
Double Replacement	2 OP / Special	Special	Special	Special
Fingertip Compartment	.5 OP / $750	2	0	NA
Internal Handgun	1.5 OP / $10000	4	2	30 (d,o)
Internal SMG	2 OP / $20000	6	3	30 (d,o)
Retraction Device	.5 OP / $2500	2	+1	25 (o)
Strength Enhancement	3 OP / $12000 per level	0	1 per level	NA
Synthetic Skin	.5 OP / $6000	0	1	15 (w)

a: hitting heavy armor; d: exposure to dirt, dust, and grime; o: overuse; w: wounds

Cybernetic Arm Subsystems

Armoring: The cybernetic arm is covered in armored plating, creating an exoskeleton that provides 5 points of Penetration armor and 5 points of soak per level against hits to the arms only. If the character possesses two cybernetic arms (see *Double Replacement*), every 4 levels between them provides +5 Penetration and Soak to the armor of the character as a whole. No more than 5 levels may be bought per arm.

Arm Blade: This system, popular among cybernetic commandos and street toughs, is more or less a knife sized metal blade extending along the outside of the hand, grafted to the wrist surgically. It can be used in melee combat, using the Bladed Weapon skill. It has a PDC of 1, plus one per point of strength, to a maximum of 5 PDC. It also has a KDC of 1.

Cybernetic Claws: An alternative to Arm Blades, this system installs 2-inch long metal claws on the tips of all the fingertips on both hands of the character. The character may deal PDC damage instead of stun with unarmed attacks. Such attacks have –3 penetration.

Device Casing: Spacing is made to fit additional cyberware in a cybernetic arm, particularly devices that do not normally belong to a large, broad system. Any cyberware that may be placed in a Cybernetic Arm will be noted as being able to do so in it's description. Installed devices cost 50% more, but their flesh penalties will be reduced in whole or in part. This sub-system is not available to hand-only replacement systems.

Double Replacement: The character has had not one, but two arms wired to use the same cyber arms. This costs the same as any base system, as are flesh penalties and maintenance. Any sub-systems a character wishes to install may only be installed in one arm, unless it is purchased twice.

Fingertip Compartment: The character has replaced the space up to the last joint in their finger, often the ring finger or the thumb. It can be used to smuggle small contraband/drugs, as well as smaller chips and computer components.

Internal Handgun: The arm has a gun mounted in it, with the barrel set low in the palm. The gun is armed by pressing the tips of the fingers to the base joints, and fired by pulling the thumb back far. The barrel protrudes when armed. The gun fires semi-automatic case-less 9mm rounds (4 PDC, 1 KDC), and fires as a light pistol. Ammunition

is fed through an elbow-inserted clip, holding 16 rounds. The gun has a terrible recoil of 3, however, and a ROF of 3. It requires at least a half-arm cybernetic arm. It may not be used in conjunction with Synthetic Skin systems

Internal SMG: Like the internal handgun, it is a concealed weapon in a cybernetic arm. It is the same in most respects as it's smaller brother. However, it is capable of three round bursts, and has an ROF of 9, as well as a more manageable recoil of 1 (though, still poor for an automatic weapon…), and holds a 30 round clip.

Retraction Device: This device must be bought in conjunction with Arm Blades and Cybernetic claws. It allows the weapons to be retracted into the base bone or synthetic fingers when not in use.

Strength Enhancement: Through the use of encased servos, motors, and pistons, the arm becomes much stronger. A cybernetic arm may have as many as 5 levels of strength enhancement. Each level of Strength Enhancement gives that arm +1 strength. Note that this system is not available for hand-only replacements, and can only be taken by full cyborgs.

Synthetic Skin: A very believable synthetic flesh is placed over cybernetic arms, making them look perfectly normal by all but the most thorough investigations.

Neural Interface Processor

Cost:	1 OP / $35,000
Maintenance:	3
Stress:	25
Flesh Cost:	7

Effects: The Neural Interface Processor (NIP) is a long series of wiring and nerve alteration. It exists as the basis of other neural based cybernetics. Relatively non-intrusive, and completely undetectable by normal observation, it is a favored by commandos and black operatives who want to be able to keep up with more heavily wired combatants. This system serves as the basis of many nerve-altering wires that make the combatant faster, more instinctive, and more aware.

None of the subsystems of the NIP can be installed without the parent system. When a subsystem is overstressed, the entire system is overstressed. The NIP will be stressed by overuse, or by nerve effecting drugs and poisons. Wounds that may cut or damage nerves also stress the system.

Some sub-systems are not constantly active, and can be activated freely by the bearer. Activating neural wires is a free action in combat. The Flesh cost of the NIP and all subsystems is reduced by 1 per cybernetic limb, to a minimum of 1 flesh cost.

Haywire Table:

Loss By	Malfunction
1-4	A minor malfunction occurs. The last system used goes offline, and all other systems require a Willpower roll vs. 15 to activate each time they are activated. The user also begins to twitch sporadically every 15 minutes or so until repairs can be made. *($650 to fix, 20 DT)*
5-8	A major malfunction occurs. All systems with a stress rating equal to or less go offline, and cannot be used. The user also begins to twitch regularly every 5 minutes or so until repairs can be made *($500 per wire to fix, 25 DT)*
9+	Everything goes offline. All the systems go offline immediately, and the bearer twitches almost uncontrollably. *($750 per wire to fix, 30 DT)*

Subsystems: *Boostware, Comp Link, Cyberbrain Implant, Reactionware, Hearing Augmentation, Hecatonchires System, Internal Memory, Internal Processor, Olfactory Augmentation, Pacemaker Coprocessor, Tactile Augmentation, Taste Augmentation, Vision Augmentation*

Subsystem	Cost	Flesh	Maintenance	Stress
Boostware	1 OP / $20000	5	1	25
Comp Link	.5 OP / $2500	1	1	30
Cyberbrain Implant	1.5 OP / $15000	3	1	30
Reactionware	2 OP / $25000	5	1	25
Hearing Augmentation	.5 OP / $5000	4	1	20
Internal Memory	.5 OP / $1000 per 5 MB	1	1	25
Internal Processor	1.5 OP / $7500	7	1	25

Net Link	1 OP / $15000	1	2	30
Olfactory Augmentation	.5 OP / $5000	4	1	20
Pacemaker Coprocessor	.5 OP / $5000	2	0	20
Tactile Augmentation	.5 OP / $5000	4	1	20
Taste Augmentation	.5 OP / $5000	4	1	20
Vision Augmentation	.5 OP / $5000	4	1	20

All systems failure stem from overuse.

Neural Interface Processor Subsystem

Boostware: This wiring, when activated, temporarily increases the character's Reflex, Agility, and Strength by 1 point each. These increases last for the whole duration of 30 seconds: 3 combat rounds. However, after the time wears off, the character suffers –2 in all previously mentioned attributes due to backlash, for the duration of 20 seconds, or 2 combat rounds. The system may then be reactivated after 10 seconds, another combat round.

Comp Link: A small, metal plug is installed on the temple, neck, behind the ear, or on the arm, a Comp Link allows the bearer to interface with an external device.   Using the comp link to feed in electrical impulses in along the NIP and to devices also located on wire. Through it, a character can feed in files to Internal Memory, jack into a computer matrix, or to display gathered data on a computer monitor.

Cyberbrain Implant: The cyberbrain is a small, specialized addition added to the base of the brain and linked with wires to various nerve clusters. It cannot be used to store computer data, and it cannot be read by external means. It can form memory recognition patterns and store abstract concepts. It grants the bearer a +2 bonus to Intelligence for the purposes of memory, and it also makes learning skills considerably easier. Skills cost one XP less to purchase.

Reactionware: A standby of the speed conscious soldier, this system is an active system; it must be flipped on and off. When activated, the character's Reaction is increased by 2 points for the whole of 30 seconds: 3 combat rounds. However, the backlash is severe. The character suffers a 2-point Hesitation penalty for the 2 rounds (20 seconds) immediately following the boost. 10 seconds later, the system may be reactivated.

Hearing Augmentation: This passively wired system grants the character +2 bonuses to perception skill rolls involving hearing. It cannot be used in conjunction with cybernetic ears.

Internal Memory: The character has computer memory installed along their wiring that holds 100 DP of data per level. The information may be input through or output into a cybernetic eye or ear, and may also be used in conjunction with a Comp Link or an internal processor. Up to 5 levels of Internal Memory may be taken.

Internal Processor: The character has gone so far as to install a microcomputer in their body. The character needs to link to keyboard and visual display (or have a Display Link) system in order to use the processor.

Net Link: The character possesses an internal, "wireless" uplink to the UCN. It can be turned on or off at will. In order to be used actively, however, a character needs an external means by which to interface.

Olfactory Augmentation: This passively wired system grants the character +2 bonuses to perception skill rolls involving smell. This is more useful than it sounds…it allows a character to "smell" Landmates and full Cyborgs who reek to the user of lubricant and joint oil.

Pacemaker Coprocessor: This system monitors a character's heartbeat and will use electrical charges to resuscitate in the event of cardiac arrest. It has enough electrical charge for three attempts before it's battery needs to be replaced.

Tactile Augmentation: This passively wired system grants the character +2 bonuses to perception skill rolls involving feeling.

Taste Augmentation: This passively wired system grants the character +2 bonuses to perception skill rolls involving taste.

Vision Augmentation: This passively wired system grants the character +2 bonuses to perception skill rolls involving eyesight. However, it cannot be installed in conjunction with cybernetic eyes.

Cybernetic Torso

Cost: 3 OP / $50000
Maintenance: 4
Stress: The Cybernetic Torso cannot be overstressed…it's a torso for Christ's sake! However, its subsystems can be overstressed.
Flesh Cost: (Character's Body x 5)
Effects: The Cybernetic Torso is one of the most drastic of all cybernetic installments; it replaces the character's torso entirely with metal, coils, and wires. While it is still completely accurate and looks exactly like a human model, it is definitely artificial and is easily noticed as being so.

This system is available to full-Cyborgs only. It must be taken with paired cybernetic legs and arms. However, many of the subsystems are available to humans and bioroids. This system provides the character with a natural armor of 5 Penetration / 5 soak and +1 BODY.

Subsystems: Bone Lacing, *External Armor*, Sub-dermal armor, *Synthetic Skin*

Subsystem	Cost	Flesh	Maintenance	Stress
Bone Lacing	3 OP/$8750 per level	6 per level	2 per level	BODx5(h)
External Armor	3 OP/$15000 per level	0	1	30(w)
Sub-dermal armor	2 OP / $25000	7	1	25(w)
Synthetic Skin	1 OP / $6000	0	1	20(w)

h: overweighing and exertion; w: wounds.

Cybernetic Torso Subsystems

Bone Lacing: The character's skeletal structure is reinforced w/ ceramic lattices and metal alloy covering. The character may take up to 3 levels of this installation. Each level provides +3 hits, and a +1 bonus to TNs involving supporting great weights. At level 2, it provides +1 BOD, and at level 3, it provides +1 STR.

External Armor: The normally wiry and muscle like cybernetic arms are encased in ceramic and metal armor. The datafilm skin that encases the system covers the armor. For ever level of External, the character will possess +10 Penetration Defense and +5 Soak. This system may not be bought with synthetic skin. Up to 5 levels may be taken.

Sub-Dermal Armoring: These nasty little grafts place impact armor strips beneath the character's skin. It provides 5 points of Soak. It may not be taken w/ out Synthetic skin unless the sub-system is installed without the parent.

Synthetic Skin: This system places a nearly undetectable artificial skin over the torso replacement.

Organ Casing Systems

Cost: 3 OP / $20,000
Maintenance: 1
Stress: [CON x 5]
Flesh Cost: 7
Effects: Organ Casing is a system popular among mercenaries and carbonic model bioroids. After a long, and somewhat challenging surgery, all organs, excluding the brain, are cased in ceramic lacing, relocated, and replaced, and nanite repair cells are placed within wiring using magnetic fluid as a medium. The organs are more resilient to damage, disease and poisons, and the character bleeds less when wounded. Internal bleeding is also reduced. This provides the recipient with a resistance to all damage. Every die of damage done to a character is reduced by 1, to a maximum reduction of the character's Constitution. Not only that, but the casing provides a basis for other modifications that modify and augment the organs. Though the system cannot be overstressed, it's subsystems can.

Subsystems: Anti-toxin System, Air Supply System, Artificial Organ, Chem Auto-Booster, Digestive Filters, Heart Dial, Lung Filters, *Organ Placement*, Rebreathers

Subsystem	Cost	Flesh	Maintenance	Stress
Anti-toxin System	.5 OP / $3750	3	1	20 (p)
Air Supply System	1 OP / $7500	6	1	20 (o)
Artificial Organ	1 OP / $20000	6	3	30 (w)
Chem Auto-Booster	1 OP / $9000	4	1	20 (o,p)
Digestive Filters	.5 OP / $12500	4	1	20 (p)
Heart Dial	1.5 OP / $9000	3	1	20 (o)
Lung Filters	.5 OP / $7500	3	1	20 (d,p)
Organ Placement	1 OP / $10000	8	3	35 (w)
Rebreathers	.5 OP / $6500	3	1	20 (o)

d: dust, dirt, grime, and smoke; o: overuse; p: poison; w: wounds;

Organ Casing Subsystems

Anti-toxin System: This system uses tracer nanites to find toxins, and then releases counter-measures. Any damage done by poison is halved, after the first round, and any tests to resist delayed poison effects are made at +3. Further, they may make an additional test to resist after the first at the onset of any delayed effects to cancel the poison.

Air Supply System: This system wires the character with a back-up oxygen supply that can be filled with either 25 minutes of pure oxygen supply, or 6 minutes of oxygen taken in by breathing.

Artificial Organ: A vital organ is replaced with a cybernetic, artificial one. It functions exactly as regular organ, but will not suffer from disease, cancer, or age. The organ to be replaced must be specified.

Chem Auto-Booster: This sub-dermal device injects the drug of the character's choice directly into the blood stream. It can be used at will, and can hold up to 3 doses of a drug before it needs to be refilled. Stimulants/drugs/poisons must be bought separately.

Digestive Filters: This system affects what sort of nutrients can be digested. It increases the resistance to ingested poison by 10 points.

Heart Dial: The character can literally pump up the rate their heart is beating. By pumping it up, a character may increase their Movement, Reaction, Strength, and Constitution, splitting 2 points any way they wish between them. Note, that for every round (10 seconds) after the first 30 seconds of use, the character must roll CON vs. 15 (+3 per additional round) or suffer immediate cardiac arrest. The system must stay down for a minute between uses.

Lung Filters: This system filters out dust, gas, and other hazardous particles in the air. It increases the resistance to inhaled poisons by 10 points.

Organ Placement: The organs within the character are further reinforced and position in a single, compact armored area. Whenever hit by a blow that would reduce the character's hits to zero, The character may make a CON roll vs. the damage done to reduce the damage by half.

Rebreathers: The character can "re-breathe" carbon dioxide in their lungs. The character can hold their breaths for 3 times as long, and receives a +5 bonus to resist asphyxiation in hazardous situations.

Cybernetic Ears

Cost: 1.5 OP / $15,000
Maintenance: 3
Stress: 20
Flesh Cost: 4 points
Effects: The cybernetic ear system consists of a prosthetic ear, mechanic eardrum, and other cybernetic wiring and devices. They are relatively common, and serve as a platform for a multitude of upgrades. They provide hearing equivalent to that of a normal human, but otherwise provide no bonus. They exist as platforms for additional cybernetic upgrades.

Cybernetic Ears will malfunction if they are subjected to an extremely loud noise.

Haywire Table:

Loss By	Malfunction
1-4	Heavy Static. Any perception rolls involving the ears made by the afflicted character are at –3 penalty, until the static goes away. The static will clear up in 1d6 minutes, but will not clear up if the character has not made their last scheduled maintenance. *(no cost to repair, difficulty 15)*
5-8	Temporary loss of audio. The character is effectively deafened and must operate in complete silence. They will get their hearing back in 1d6 minutes, but will not if the character has not made their last scheduled maintenance. *(no cost to repair, difficulty 15)*
9+	The ears go completely offline, and will not function until repaired. *($750 to repair, difficulty 20)*

Subsystems: Audio Feed, Dampener, Frequency Modification, Hearing Amplification, Radio Receiver, Recorder, Select-Sound Filter

Subsystem	Cost	Flesh	Maintenance	Stress
Audio Feed	.5 OP / $3000	4	2	25 (o)
Dampener	.5 OP / $2500	3	1	20 (l)
Frequency Modification	.5 OP / $4750	3	1	15 (h)
Hearing Amplification	1 OP / $5000	4	2	15 (l)
Radio Receiver	1 OP / $7000	5	1	25 (h)

Recorder	1 OP / $8500	5	1	20 (o)	
Select-Sound Filter	.5 OP / $6750	4	1	25 (h,l)	

h: very high or low frequency; l: extremely loud noises and sounds; o: overuse;

Cybernetic Ear Subsystems

Audio Feed: this system allows the character to play back audio recordings through Internal Memory or a Comp Link.

Dampener: This system shields the eardrum and reduces shock from loud noises. The character suffers ¼ damage from sonic weaponry or sources. This also adds a +5 stress bonus to resist loud noises and to otherwise avoid loud noises, and allows the character to use a Hearing Amplification as though it had a stress of 25.

Frequency Modification: The character can hear at low and high frequencies not normally detectable by human ears.

Hearing Amplification: The character's ear can hear remarkably well, and can even try to listen in on sounds a great deal away. The ear functions like a shotgun microphone.

Radio Receiver: The character can receive radio transmissions through a built in radio that transmits the sound silently onto the eardrum. The frequency can be changed simply.

Select-Sound Filter: The Select-Sound filter negates out background distractions and "white noise", giving eavesdropping attempts and perception rolls involving sound a +2 bonus.

<u>Cybernetic Legs</u>

Cost: 8 OP / $120,000
Maintenance: 6
Stress: [Move x 5]
Flesh Cost: 15
Effects: This system replaces both of the character's legs with prosthetic ceramic and metal cybernetic legs. Note that generally this operation will not be used to replace a single leg, as it makes movement awkward and special implants are difficult to install. If a character possesses Cybernetic Legs and Double Replacement Cybernetic Arms, the character gains +1 BODY.

Like the cybernetic arm, the cybernetic leg cannot greatly augment a character's natural ability, though a wealth of upgrades are available, and full cyborgs may use them as a basis to augment their movement speeds. These upgrades are unavailable to non-full cyborgs.

Haywire Table:

Loss By	Malfunction
1-4	The leg looses some of it's articulation. The leg is at –1 move until fixed. *($400 per component to fix, 15 DT)*
5-8	A knee, and cannot move, making any actions involving the arm suffer a –2 penalty, and also inducing a –2 move penalty. *($750 to fix, 20 DT)*
9+	An entire leg jams, and cannot be used at all. Movement is reduced to zero. *($1000 to fix, 20 DT)*

Subsystems: *Air Carpet System*, *Calf/Thigh Compartment*, *Hydraulic Augmentation*, *Propulsion Boosters*, *Synthetic Skin*

Subsystem	Cost	Flesh	Maintenance	Stress
Air Carpet System	.5 OP / $7000	0	2	30 (a,o)
Calf/Thigh Compartment	1 OP / $950	0	1	25 (q)
Hydraulic Augmentation	3 OP / $3000 per level	0	2 per level	20 (o)
Propulsion Boosters	1.5 OP / $8000	0	3	30 (h,o)
Synthetic Skin	.5 OP / $800	0	0	20 (w)

a: low atmosphere; h: hazardous environments; o: overuse; w: wounds

Cybernetic Leg Subsystems

Air Carpet System: At will, the character can activate a jet pump in the legs that shoots out a cushion of air, contained in a spreading plastic veil. This arrests a fall to an extent, allowing the character to fall greater distances without harm.

Calf/Thigh Compartment: A small compartment: large enough to conceal a light handgun, is installed in either the thigh or the calf. One can be installed in each. This system can be installed w/ Synthetic skin, w/ metal covers that pop off.

Hydraulic Augmentation: This system, consisting of pumps and hydraulic motors gives a full cyborg +1 move per level. A maximum of 5 levels may be taken.

Propulsion Boosters: Containing enough fuel for two uses, the character gets a temporary boost that will keep them airborne for 1 to 4 phases (character's option). They will move in a straight arc. When the character is coming down, they may need to use an Air Carpet System or the second fuel use to break their fall.

Synthetic Skin: The legs are covered in an almost undetectable synthetic skin that can almost pass for the real thing. This subsystem will not work with the Propulsion Booster or Air Carpet System subsystems.

Full Cyborgs

While many people will choose to use cybernetic implants to enhance their abilities, a few choose to go one step further and replace their whole body with cybernetic implants. Such a character is known as a Full Cyborg, or just a Cyborg. Cyborgs are subject to certain advantages and disadvantages that other characters are not. What will follow are the rules needed to create and play Full Cyborgs

Note: The GM can disallow Full Cyborg capabilities to starting characters if he so wishes.

Character Creation

At the first step of Cyborg creation, a character is created in the same manner as a normal, human character. 40 CP are allocated between all of the attributes. Once the basis to the character is defined, the player may move on and define what components make up the cybernetic frame.

Buying Parts

All full cyborgs must purchase Double Replaced Cybernetic Arms, Cybernetic Legs, Eyes, Ears, and a Torso. The OP cost is reduced by 25% (round to the nearest integer). Therefore, the base cost to create a full cyborg is a whopping 18 OP. The character is also assumed to have a "Cybernetic Head". This has no actual game mechanics. Subsystems to the required above systems are bough normally (that means at half price), and additional Systems are bought at 75% cost.

Characteristic Maximums

Cyborgs may increase their characteristics with spare OP (5 OP per point) just like regular characters. However, there is no maximum. **Cyborgs have no characteristic maximums after CP is spent.**

Flesh and Cyborgs

Cyborgs suffer no actual Flesh loss from cybernetic installations. Instead, they have a base flesh rating of 10 (this represents the character's brain and spinal column, the only 'original' parts that must be kept), plus 4 per major internal organ the character chooses to keep.

Sexual Behavior and Cyborgs

Yes, before you ask, cyborgs generally keep their original reproductive organs, or have prosthetic ones installed, covered in ultra sensitive datafilm. Cyborgs still have "normal" sexual impulses and needs, and, if they have their original reproductive organs, can even give birth.

Wounds and Cyborgs

Cyborgs, which tend to be powerhouses in a fight, have one distinct drawback. When they are shot, struck, or otherwise damaged, systems tend to break down.   If they receive more cumulative damage to a hit location than the stress rating of a system placed there, they must make a stress check for ALL systems in the hit location that have a stress rating less than a damage done. Any failure means that system failed catastrophically: they will not function until repaired.

Cyborgs are ultimately just as fragile as "fleshy" non-cyborgs. They go through shock, "bleed" magnetic fluid, and are generally vulnerable to the same poisons, weapons, and diseases as normal humans. They aren't walking tanks: but they're close.

Hesitation and Cyborgs

Another drawback to becoming a full cyborg is that they are somewhat stiff and twitchy: they do not respond perfectly to mental commands. To represent this, all full cyborgs suffer a –1 penalty to Hesitation.

Cyborg Costs and Gameplay

Cyborgs are cheaper to maintain than the sum of their parts. The costs of cyborg maintenance and repairs are reduced by 40%. Also, it's cheaper to install cyberware in a cyborg (no pesky flesh to get in the way). All monetary costs of new cyberware cost 20% less.

Cyberware and Improvisation

Players should feel free to develop their own cyberware, if they wish and the GM approves, especially for cyborgs. Just use what rules and costs seem fair. Remember that the OP cost should be based on the power and usefulness of the system, and the monetary cost should be based on how difficult the system would be to install, and how expensive the parts would be.

## Cyborgs and Characteristic Advancement

When all of your mortal flesh is gone, there's not much you can do to better yourself. Full cyborgs cannot increase their Combat, Physical, or Move attributes with experience.

Appleseed Bioware

Biotechnology, cloning, gene-splicing; all have become prevalent in the world of Appleseed, particularly in Olympus and Poseidon. While very few nations possess the technology to make such advances commercially available, or viable in combat. But, if you have the resources and the means to acquire bioware, you can greatly enhance your abilities and improve your quality of life.

What is Bioware?

Bioware refers to the application of cloning, DNA altering, and gene therapy to create implants, new bodies, or even new people. Very rare is the human that possesses any sort of bioware. It's more expensive than cyberware and less widely available. However, Olympus actually makes a pseudo-human, made exclusively of biotechnology-spawned components, known as Bioroids. These rules provide the information you need to play a bioroid, or that rare individual with a vat-grown lung or two.
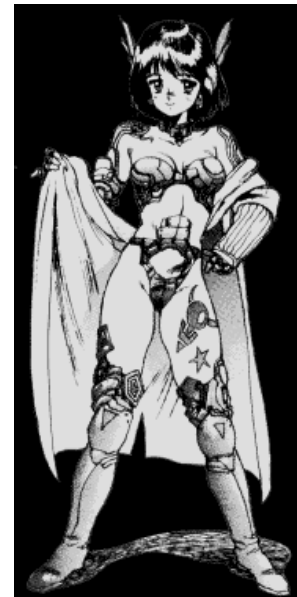
Bioroids

The Urban Planning Group, the creators of Olympus, coined the term "Bioroid". Bioroids are not borne to a mother, nor do they have just two parents. They are made from a large pool of DNA contributed by Olympus's founders, and great men and women through the years. A bioroid is made by splicing together the available DNA, and then artificially "born" in a vat that uses nanite devices to nourish and quickly age a bioroid. It takes about 2 years to create a bioroid that has the development of a 18-year old. Usually, however, they're only developed into 10 to 15 years of age. After "birth", the bioroid has several organs removed, and individually cultured organs made specifically for the bioroid replace them.

After the initial creation of the bioroid goes through "programming". For years, they are raised in very controlled environments, fed a regimented diet, raised by artificial intelligence and other bioroids, and conditioned towards certain behaviors and thoughts. Afterwards, the bioroid is finished and ready to go out into the world.

Why all this effort? The founders of Olympus thought (and were probably correct) that city would fail if it were not for a moderating party that was infinitely dependable and had no real destructive tendencies. That is the purpose of the bioroid - to serve humanity.

Life as a Bioroid

Bioroids live an interesting life. While they technically have their freedom and the ability to make choices, inevitably they cannot make choices they weren't programmed to make. Most bioroids really don't notice this, but those who do are often troubled by it.

Your average bioroid probably lives a life just like yours. He owns a house. He has a job (the one he was built specifically for). He car-pools. He dates. Maybe he'll have kids some day (note: bioroids give birth to humans, not other bioroids.) He could be called human. However, he is not susceptible to the same laws as humans, nor do they have the same rights. Also, he'll probably live much longer.

Bioroids can theoretically nearly live forever. They are eligible for an operation known as a Life Extension Treatment. This treatment arrests the aging of the character for roughly 50 years. Therefore, most of the bioroids hanging around are between 50 and 200 years old. All bioroids, save new experimental models, will have had at least one Life Extension Treatment. However, none have had more than 3 so far.

Bioroids as PCs

Bioroids are created much in the same was as normal human characters are. 40 CP are divided between the characteristics, and the character possesses 50 OP to buy skills and options. They possess the same characteristics, but earn two new ones: Entropy and Programming. Entropy measures how fragile the biosystems in their "body" are, and is rated from 1 on up. The higher the character's Entropy rating, the quicker they'll wear themselves down, and the more dependant they are upon their "host nation" to provide them with the medical care they need to stay functional. Programming, rated from 1 to 10, represents how "inhuman" their programming has made them. A Programming rating of 1 represents a bioroid almost indistinguishable from a human, while a rating 10 bioroid is practically a robot.

Entropy

Entropy begins at zero. It increases as the character replaces more of his normal flesh with bioware, and as he undergoes Life Extension Treatments. A typical Bioroid will begin with 20 points of entropy. If the Entropy rating ever exceeds 40, the bioroid will die in a few months due disease, ennui, and organ failure.

Periodic Longevity Processing

Bioroids must undergo regular maintenance treatments called "periodic longevity processing." This process increases cellular integrity and keeps the bioroids life processes going. The higher a Bioroid's Entropy, the more often they will have to go in for longevity treatments. The bioroid needs to go in once every three years per point of Entropy. Therefore, a Bioroid with an Entropy Rating of 24 would need to go in every 46 days. If the character misses their treatment by more than 2 days, they begin to suffer from lethargy, and suffer a –1 penalty to all rolls involving willpower, endurance, or healing. They begin to sleep later, and for every day that passes, the penalty increases by 1. If (CON x 3) days pass, and the character still has not received their periodic longevity treatment, they wither away and die.

Programming

Bioroids are programmed and predisposition towards certain behaviors though the degrees by which they are programmed is determined by their station in society. Worker bioroids undergo very little programming (a point or two of Programming), while jobs of higher importance will be programmed an extra point of two. Combat models and Administrator bioroids, however, are programmed extensively.

At the character creation of a bioroid, the player determines how many points of Programming he wishes his bioroid to have. The more points he takes, the more OP he receives to spend on Perks (specifically, on membership and contacts in the society that created them) and Bioware.

The level of Programming a character possesses has a large effect on them. For every point, the player must choose two rules that the bioroid must follow. The OP provided by each rule is dependent on how much that rule impairs them. Calculate rules as Psychological, Personality, and Social Complications. However, a character cannot collect more than 4 OP per rank of Programming.

Purchasing Bioware

Starting characters may purchase bioware with OP, if they are a bioroid. A non-bioroid will not have such implants available to him or her (the GM may allow them to purchase bioware, but if so, they must do so at double the normal OP cost). There is no listed monetary cost for Bioware, because it is not available on the commercial market.

There are two types of bioware installations: replacements and operations. Replacements involve surgically removing tissue, muscle, bone, organs and nerves, and implanting specially cultured

replacements, made to be better than what nature produces but still the same genetic material as the patient. Operations cover everything else.

Replacements

Replacements possess rankings from 0 to 4, with 0 being a "randomly" grown, normal organ, with 4 being an organ statistically impossible to produce by "natural means". Each rank must be paid for with OP.

Replacements also have a set value that increases the Entropy of bioroid. This is known as the bioware's Maintenance rating (just like cyberware…). They also have a Flesh rating. However, this rating does not reduce from the character's Flesh rating. Instead, a character can never possess more bioware in Flesh points than their Flesh characteristic. Finally, a character cannot replace an organ with bioware if the organ has already been replaced w/ cyberware. Replacing a biotech-engineered organ with a cybernetic organ results in the loss of any benefits provided by the organ.

What follows is a table showing the various common organ, tissue, and bone replacements available to a character. It lists the name, cost per level, flesh rating, maintenance, and effects of the replacements. Level 0 replacements can be taken for free (these have no effect), but doing so is ultimately detrimental to the character (more maintenance, no benefit)

Note: It is highly recommended that the GM only allow up to level 2 organ replacement at character creation

Name	OP per Rank	Flesh	Maintenance	Effects
Bone Replacement	3	20	3	+1 BOD per level
Ear Drum Replacement	1	4	2	+2 to perception rolls involving hearing
Eye Replacement	1	5	2	+2 to perception rolls involving sight
Heart Replacement	6	7	5	+1 CON, +1 STR per level
Kidney Replacement	1	5	2	+1 to poison resistance per level
Lung Replacement	3	9	3	+1 CON per level
Muscle Replacement, Arm	6	10	5	+1 STR, +1 REF per level
Muscle Replacement, Leg	6	10	5	+1 MOVE, +1 REF per level
Nerve Replacement	5	10	4	+1 REA per level
Tendon Replacement	6	6	5	+1 DEX, +1 REF per level

Operations

Operations are the second type of biotechnological modifications available. They cover modifications to body parts that don't encompass complete replacements of organs or parts. While they can be performed on body parts replaced by…Replacements, they cannot be performed upon body parts replaced by cyberware. Operations have an OP cost and Maintenance rating, like operations, and may or may not be purchased in ranks. However, they do not have a Flesh rating like Replacements.

What follows is a listing of the various common operations that can be performed upon a character. It lists the name, cost per level, maintenance per level, and effects of the replacements. If the Operation can be bought in ranks, the maximum rank it may be bought at is 3.

Basis Operations

Life Extension Treatment
OP: Zero for the first, 5 for each additional
Maintenance: 5 per rank

Effect: This treatment, available exclusively for bioroids, slows down the aging of a character. Their life span will increase by 50 years, and they will not age for the duration of that time. *Note: Unless the character is a combat model or a prototype bioroid, the character is assumed to be a third generation bioroid and therefore has a Level 1 Life Extension Treatment.*

Skin Operations

Camouflage Skin

OP: .5
Maintenance: 1
Effect: The character has camouflage patterns on their skin that becomes visible when adrenaline is produced in the body. The type of camouflage provided (urban, snow, woodlands, etc.) must be chosen when taken. The difficulty to spot a character in that environment is at +2.

Chameleon Skin

OP: 1
Maintenance: 2
Effect: The character's skin has been genetically altered to change tints when the character produces adrenaline, so that character blends in with the background. The difficulty to spot the character is +2. In conjunction with Camouflage Skin, the Camouflage Skin works with every environment, and together they provide a +3 penalty to the difficulty to be spotted.

Skin-weave Armor

OP: 1 per rank
Maintenance: 2
Effect: The character's skin has been biologically hardened to increase resilience. Each rank of Skin-weave Armor provides a natural Soak of +2, and an additional Stun Defense of +1.

Eye Operations

Low Light Retinas

OP: 1
Maintenance: 2
Effect: The character's retinas have been genetically altered to allow the character to see in extremely low light. They suffer no penalties when in low light, but still cannot see in complete darkness.

Thermographic Retinas

OP: 1.5
Maintenance: 3
Effect: The character can "see heat". This allows them to see in the absence of light.

Vision Magnifying Retinas

OP: 1 per Rank
Maintenance: 2
Effect: These modifications allow the character to see considerably further. The character's vision is extended by 50%, and allows the character to attack with ranged weaponry as though he was one range closer, per level.

Ear Modifications

Frequency Adaptation

OP: 1
Maintenance: 1

Effect: The character is capable of hearing sounds at considerably higher or lower frequencies.

Animorphic Modifications

Claws/Fangs
OP: 2
Maintenance: 2
Effect: The character possesses deadly fangs and claws. Half of the unarmed damage he inflicts is counted as real damage. For an extra .5 OP, the claws are retractable.

Gills
OP: 3
Maintenance: 2
Effect: The character possesses a gill based breathing system in addition to standard breathing. The character can breathe in water.

Brain Modifications

Motor-skills Upgrade
OP: 6 per level
Maintenance: 5
Effect: The character's brain has been altered to enhance manual dexterity and agility. For each level of Motor-skills Upgrade, the character gains a +1 bonus to both Reflexes and Dexterity.

Wet Memory
OP: 4 per level
Maintenance: 2
Effect: The bioroid has had additional brain cells attached to various location on their brain, increasing memory and intelligence. Each level of Wet Memory provides +1 intelligence.

*   *   *

If a player can come up with something new or interesting for a bioroid, the GM may allow him to implement it. Since there are some truly bizarre secret bioroid models out there, who knows what limits there are?

Bioware and Humans

A human may take a limited amount of bioware. He may take up to 5 points of Entropy worth of bioware. However, if their entropy increases to 6 or more, they have officially become a bioroid (albeit one with 0 programming), and are subject to the same rules.