Mekton Zeta Powersuit Construction

by Christian Conkle

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Introduction

Zeta scaling allows a Game Master to design all kinds of mecha, from small suits of powered armor to large space-going battleships. Unfortunately, the MZ+ scaling system requires the mecha to be built at 1/1 scale then subjected to intricate mathematics and chartchecking in order to arrive at the desired result.

To this end, I present Instant Powersuit, a set of rules for creating simple powersuits in for Mekton Zeta without scaling. The tables and formulae presented in these rules are "pre-scaled." Elements from these charts can be easily mixed and matched with other Mekton Zeta components, without conversion.

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Caveat

These rules are extremely simplified for fast and easy powersuit construction. Please use Mekton Zeta Plus for greater detail and many many more options.

Class	Head	Torso	R.Arm	L.Arm	R.Leg	L.Leg	Average	Armor*	Tons	Damage**	Cost
Superlight	2.5	5	5	5	5	5	5	2.5	8.5kg	+0	3.4 CP
Lightweight	5	10	7.5	7.5	7.5	7.5	7.5	5	15.0kg	+0	6 CP
Striker	7.5	15	10	10	10	10	10	7.5	21.5kg	+0	8.6 CP
Med.Striker	10	20	12.5	12.5	12.5	12.5	12.5	10	28.0kg	+2.5H	11.2 CP
Hvy.Striker	12.5	25	15	15	15	15	15	12.5	34.5kg	+2.5H	13.8 CP
Med.Weight	15	30	17.5	17.5	17.5	17.5	20	15	41.0kg	+2.5H	16.4 CP
Lt.Heavy	17.5	35	20	20	20	20	22.5	17.5	47.5kg	+5H	19 CP
Med.Heavy	20	40	22.5	22.5	22.5	22.5	25	20	54.0kg	+5H	21.6 CP
Armd.Heavy	22.5	45	25	25	25	25	27.5	22.5	60.5kg	+5H	24.2 CP
SuperHeavy	25	50	27.5	27.5	27.5	27.5	30	25	67.0kg	+7.5H	26.8 CP
MegaHeavy	27.5	55	30	30	30	30	35	27.5	73.5kg	+7.5H	29.4 CP

Step One: Choose a Frame

*Armor ablates 1SP for every damage of 5 Hits or more. Half of any damage that gets past the armor is taken by the wearer, and half is taken by the servo. Powersuit components can be designated as non-powered, in which case half the servo's structure (quarter for torso) can be used as an additional layer of armor.

**This damage is added to the damage done by hands, claws, pincers, talons, and melee weapons.

Step Two: Choose Subassemblies

Each Subassembly must be placed within a servo (head, arms, torso, etc.). Each Subassembly requires a certain amount of Space from each Servo. Each Servo can only mount as many spaces worth of Subassembly as it has Hits/2.5 in that Servo (see chart above). If the Subassembly you want doesn't fit, the number of spaces it requires can be reduced for 0.5 CP per Space (or 0.05 per 0.1 Space) added to the cost of the Subassembly.

Subassembly	Cost	Weight	Space	Notes
Sensors (required)	0.8 CP	1.0kg	0.1	7km range, 20km communication, -3 to actions if not in head
Advanced Sensors	19.2 CP	1.0kg	0.1	50km range, 200km communications3 to actions if no backup.
Backup Sensors	0.4 CP	1.0kg	0.2	1km range, 6km communications6 to actions if no backup.
Hand (2.5H damage)	0.4 CP each	0.5kg	0.1	
Claw (5H damage)	0.8 CP each	1.0kg	0.1	
Talon (5H damage)	0.4 CP each	1.0kg	0.1	cannot manipulate
Pincer (7.5H damage)	0.4 CP each	1.5kg	0.1	cannot manipulate
Storage	0.02 CP per 5kg	0.0t	0.01	5kg of storage
Security system	0.1 CP	0.0t	0	
Escape System	0.2 CP	0.0t	0	Blows off armor.
Weapon Linkage	0.2 CP each	0.0t	0	Fires two weapons simulaneously.

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Step Three: Choose Weapons

Each Weapon must be placed within a servo (head, arms, torso, etc.). Each weapon requires a certain amount of Space from each Servo. Each Servo can only mount as many spaces worth of weapon as it has Hits/2.5 in that Servo (see chart above). If the weapon you want doesn't fit, the number of spaces it requires can be reduced for 0.5 CP per Space (or 0.05 per 0.1 Space) added to the cost of the weapon.

Any weapon can be designated as Hand-Held at no cost. An arm may carry and use as many Spaces worth of weapon as it has Kills in the arm divided by 25. Therefore, a 7.5 Hit arm may carry a weapon that requires 0.3 spaces. Hand-held weapons are vulnerable to "Grab" maneuvers.

Beam Weapons	Range	WA	Damage	BV	Shots	Weight	Spaces	CP Cost
Lt. Beam Gun	20/200	+1	2.5 (1d4)	Na	Inf	0.5 kg	.1	.4
Med. Beam Gun	35/350	+1	7.5 (1d6+4)	Na	Inf	1.5 kg	.4	1.0
Hvy. Beam Gun	50/500	+1	15 (4d6+1)	Na	Inf	3.0 kg	.9	1.8
Beam Cannon	40/400	+2	15 (4d6+1)	Na	Inf	2.0 kg	.9	1.8
Hvy. Beam Cannon	40/400	+2	20 (6d6-1)	Na	Inf	4.0 kg	1.5	3.2
Nova Cannon	75/750	+1	37.5 (11d6-1)	Na	1*	0.5 kg	1.0	5.8
Pulse Cannon	40/400	+0	10 (2d6+3)	6	1 turn**	2.0 kg	1.1	4.0
Beam Sweeper	20/200	-1	5 (1d6+1)	inf.***	Inf	1.0 kg	.6	3.0

*This cannon may only be fired once per battle.

** This weapon can only fire one burst every other turn. ***Fires a continuous beam, no maximum hit limit.

Projectile Weapons	Range	WA	Damage	BV	Shots	Weight	Spaces	CP Cost
Light Cannon	25/250	+0	7.5 (2d6)	Na	10	1.5 kg	.3	.6
Medium Cannon	35/350	+0	15 (4d6+1)	Na	10	3.0 kg	.6	1.2
Heavy Cannon	45/450	+0	22.5 (7d6-2)	Na	10	4.5 kg	.9	1.8
Giant Cannon	85/850	+0	30 (8d6+2)	Na	10	6.0 kg	1.5	3.0
Autocannon	20/200	-2	5 (1d6+1)	8	10 bursts	1.0 kg	.5	1.2
Heavy Autocannon	35/350	+1	15 (4d6+1)	4	10 bursts	3.0 kg	1.0	2.6
Epoxy Gun	25/250	+2	Diff: 18*	Na	3	3.0 kg	.7	2.4

Reloads cost 10% of the weapon's cost for a 10 shot magazine.

*Weapon does no damage, it performs a grab attack against an opponent which requires a piloting roll vs. The difficulty to escape.

Missiles	Range	WA	Damage	Shots	Weight	Spaces	CP Cost
Rocket Pod	25/250	-1	5 (1d6+1)	20	1.5 kg	.4	.8
Rocket Launcher	35/350	+0	10 (2d6+3)	10	1.5 kg	.4	.8
Missile Pod	65/650	+1	15 (4d6+1)	5	1.0 kg	.5	1.0
Heavy Missile	12/120	+2	30 (8d6+2)	1	0.5 kg	.3	.6

Missiles can be fired singly or as a salvo.

Melee Weapons	Range	WA	Damage	Weight	Spaces	CP Cost
Sword	1	+1	12.5 (3d6+2)	2.5kg	.4	.8
Axe	1	+0	15 (4d6+1)	3.0kg	.3	.6
Mace	1	+0	20 (6d6-1)	4.0kg	.4	.8
Drill	1	-1	10-AP (2d6+3)	2.0kg	.3	.6
Saw	1	-1	15- AP (4d6+1)	3.0kg	.5	1.0
Shock-Whip	1	-2	2-shock	1.0kg	4	8

AP= Armor Piercing

shock= defender must roll a d10+Body-2. If the result is less than 10, the pilot loses 1 turn.

Energy Melee	Range	WA	Damage	Shots	Weight	Spaces	CP Cost
Energy Sword	1	+1	15 (4d6+1)	inf.	1.0kg	.6	1.2
Energy Axe	1	+0	17.5 (5d6)	inf.	1.0kg	.6	1.2
Energy Lance	1	+2	20 (6d6-1)	inf.	1.0kg	.8	2.8
Nova Sword	1	+3	37.5 (11d6-1)	2 turns*	2.0kg	.8	2.8

*This weapon may only be used for 2 turns before it runs out of energy. Energy Melee Weapons subtract 10 Hits from target's Armor SP due to the "Hot Knife Through Butter" Effect.

Shields	DA	SP	Weight	Spaces	Handheld	CP Cost
Small Shield	-1	15	3.0kg	.2	Hvy.Str.	1.5
Medium Shield	-2	22.5	4.5kg	.2	Med.Hvy.	1.8
Large Shield	+0	30	6.0kg	.2	Mega Hvy.	3.6

*Hand-held shields can only be held by an arm servo strong enough to carry it.

Force Fields	DA	SP	Weight	Spaces	CP Cost
Weak Force Field	-1	15	3.0kg	1.8	3.6
Medium Force Field	-2	22.5	4.5kg	2.7	5.4
Heavy Force Field	+0	30	6.0kg	3.6	7.2

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Step Four: Figure Total Weight

Add together all of the weights of your powersuit to determine a Total Weight in kilograms. This weight will be used to figure it's Aerial Propulsion cost and its Ground MOVE and Maneuver Value.

Step Five: Purchase Thrusters (if any)

Thrusters allows your powersuit to fly. Thrusters require fuel for flight which increases the overall weight of your powersuit by 10%. Therefore a 90 kg powersuit that flies will add an additional 9 kg in fuel.

To determine the cost of thrusters, multiply your total weight including fuel by 0.0075 to determine the CP cost per MA or by 0.0015. *Example: for a 76.6 kg powersuit to fly at a MA of 20 it would cost 0.57 CP per MA (76.5 x 0.0075 = 0.57). An MA of 20 would cost 11 CP (0.57 x 20 = 11.4 rounded down to 11).*

Thrusters must also be placed in servo locations. Thrusters require as many spaces as they cost. Therefore our above example of 11 CP of thrusters would require 11 spaces. Thruster spaces can be split up and allocated to several servos at no additional cost. Spaces can be reduced for 0.5 CP per Space added to the cost of the thrusters. But even with a or MA of 20, our Powersuit barely gets over 400 mph. So how are faster Powersuits designed? The Afterburner Rule allows the powersuit to move at one Mach level for every 20 MA of thrusters purchased. This Mach Speed is only useable in high speed, straight-line, non-combat movement.

Step Six: Figure Base CP Cost

Add together all of the CP costs of all of its components so far: Frame, Subassemblies, Weapons, and Propulsion. This is the powersuit's Base CP cost or Sub-Total. This cost will be used to determine the cost of its Multiplier Systems.

Step Seven: Purchase Multiplier Systems (if any)

Multiplier Systems affect the entire powersuit and, with the exception of Maneuver Verniers, do not require spaces in a servo to place. As such, Multiplier Systems do not have a set cost. Instead, their cost varies depending on the Base CP Cost of the powersuit. To determine the cost of a Multiplier System, multiply the Base CP cost of the powersuit by the system's Multiplier cost

Multiplier System	Cost Multiplier	Effect
Automation Systems	x0.1 for each level	INT, REF, +5 skills at +5 each.
Mach Speed	x0.25	1 Mach per 20 MA of propulsion.
Maneuverability	x0.1 per +1MV	up to max of 0. Each +1 requires 5 spaces.
Stealth or Cloaking Field	x0.3	Very Difficult task to target. Cannot attack while on.
Style	x0.01	for each +1 bonus to Pilot's COOL, to a max of +3.
Synchro Systems	x0.5	for +2 to Pilot's REF, +1 to all WA's .

Space Package	Total Multiplier: x2.4	Effects
Space Protection	x0.05	Allows your powersuit to operate in airless space.
Re-entry Protection	x0.1	Allows your powersuit to re-enter the atmosphere.
Mach Speed	x0.25	1 Mach per 20 MA of propulsion.
Sub-light speeds	x0.75	Escape velocities, up to 1AU per day at GM's choice.
FTL	x1.25	Allows your powersuit to travel to other star systems.

Step Eight: Figure Characteristics (Ground Move and Maneuver Value)

Add up the weight of all the parts of your powersuit to determine it's total weight. Then check below to determine its MOVE and its Maneuver Value (i.e., how maneuverable it is-MV reduces your REF, and thus your piloting/driving skills).

Example: Our 76.5-kg Powersuit has a MOVE of 15 and an MV of -7.

Step Nine: Figure Total CP Cost

Add together all of the CP costs including Frame cost, Subassembly cost, Weapon cost, Thrusters cost, and Multiplier costs. The final result is the Total CP cost of the powersuit.

Weight	MA	+kph	ΜV
01-19kg	+3	+18	-1
20-29kg	+2.5	+15	-2
30-39kg	+2.5	+15	-3
40-49kg	+2	+12	-4
50-59kg	+2	+12	-5
60-69kg	+1.5	+9	-6
70-79kg	+1.5	+9	-7
80-89kg	+1	+6	-8
90-99kg	+1	+6	-9
100kg +	+1	+6	-10