

# Endworld PnP

Maric



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# Chapter 1

## The EndWorld

Years have gone by since the Great War. Many Years. Even though few remember how long it has been, the remnants of a time long gone still remind us that once, long ago, the world has been a nicer place. But, the world we know now . . . is not a nice place. Such a shame. I have lived a long life, and I have learned to adapt to the new World, but just as the Contamination eats away at technology and the lives of those who come into contact with it, time eats away at me. Such a shame, there is so little of it left for me. But the plans are in motion, immortality might be in my grasp.

I am . . . well, it seems some Details are starting to slip my mind. I am Quaesitor, and yet again I am wrong, but not entirely. I was Quaesitor. I traveled from the great city of Terracina to the quaint outpost of Kodal to learn. A life time of learning of trying to protect what the Supervivo have protected so long. The ancient Knowledge and ancient Arts. Microelectronics. Quantum Physics. The like. We, the Survivors, the Triumphant, the Conquerors, forced to huddle in what were mere shelters for a storm that has not subsided over the centuries, it is such a shame. Marvels of modern technology have kept me from dying these past years since i retired, but no army of hightech mechs, no experimental biotech treatment seems to be able to extend my mind. I have forgotten so much.

Such a shame.

Of course we are not the only ones who survived. Beasts stalk the lands, ferocious beasts, Megafauna, sly, intelligent and hungry creatures. In some cases literally. But even Humanoids, a pale imitation of real Humans, the descendants of vile mutants, military personnel enhancement projects, the failed attempts of foolish hope, are vile mutants and savages themselves, such a shame. They raid caravans, keep to their disjointed barbaric cultures, forever cursed to harbor the very Contamination killing their chances of ever knowing the pleasures of technology. And it seems that they have adapted to the Contamination, so it does not even kill them as much these days. Such a shame.

Alacast can purify them just like anyone or anything else, it changes the Contamination back to more normal dangers, but dangers that can be dealt with by proper humans. Tribals can live without the Contamination, if ever someone would invest in cleaning a Savage up that much, they likely still can not contribute. Such a shame. I have tried, yet they remained uncooperative, another sign of their inferiority. Some babble about cages and insults, barely comprehensible ramblings in their animalistic mockery of speech. They do not usually last long once they have gone through decon. Such a shame. Especially those infuriating individuals who seem to have allied with the Contamination trying to kill us all, wielding its Zones Of Normalcy Exclusion like weapons. Such a shame. Wide ZONEs of heightened gravity or brittleness, Oxygen free ZONEs or pure Oxidation. Such a shame that they have to appear at all even if caused by natural sources. Savages funneling Contamination into a ZONE until even the best seal breaks down and the Pilots are eaten alive . . .

Such a Shame.

– Transcript of the only Conversation the oldest Document in the Great Library of Kodal - a severely damaged upload of the Brain of an ancient Scientist - will have.

## 1.1 Rules

### 1.2 The Selector System

This system uses ten sided dice. A *Check* is a roll of usually 5 dice interpreted in a certain way, with the result describing how successful the attempted action was.

Whenever there is advantage or disadvantage of any kind, [Bonus- or Penaltydice](#) may be applicable. The roll itself is interpreted by your *Selectors* which usually are defined by the applicable attribute and skill, but may be static or equipment based. The dice in the roll are ordered and given an order-number in ascending order by value. To get the result of the roll (or to *interpret* the roll), every selector *selects* a die with the appropriate order-number and adds them to the result. Selectors greater than the biggest order-number simply selects the highest die. A selector of 0 selects no die. The usual number of selectors is 2.

The effects and result of the Check may then be further modified by [Resonance](#).

### 1.3 Bonus- and Penaltydice

Bonus- and Penaltydice cancel each other out.

The larger amount less the smaller amount describes how many extra dice are rolled on a given roll. If Bonusdice were rolled, remove the lowest dice from the Roll until the number of dice is as it was before the extra dice. For Penaltydice, the highest are removed instead. Neither Bonus nor Penaltydice ever change the number of dice being interpreted, just the relative Chances.

### 1.4 Resonance

Resonance is when in a Roll, more than one die shows the same Number.

The Resonance *amplitude* is the number of dice that *exceed 1*, meaning it is lower by 1 than the total number of dice.

The Resonance *frequency* is the number those dice show. If no effect states anything about a Resonance, they have no effect.



## Chapter 2

# Skills and Attributes

Attributes represent in what aspects of the gameworld a character excels and in which he doesn't.

Depending on the Priorities picked during character creation it may be easier or harder to raise them, but every Attribute can be Applied to a multitude of general Actions, see the examples in the table below.

The Priorities and Attributes in the following Table are not all that exist but they are the most common Attributes shared by all humans.

Priorities	Social	Mental	Physical	Ability	Spiritual
Attributes	Resolve Impression Sympathy	Perception Mind Knowledge	Fitness Dexterity Agility	Competence Insight Theory	Intuition Focus Discipline

### 2.1 Social Attributes

- Resolve: reasoning, convincing, bartering, negotiating and similar interactions
- Impression: leadership, bluffing, acting, boasting, lying
- Sympathy: chatting, pleading, resolving conflicts, being likeable

### 2.2 Mental Attributes

- Perception: gathering information, noticing details, being alert
- Mind: memory, assessing situations, processing information, mental tasks
- Knowledge: knowing, learning, possessing and storing information

### 2.3 Physical Attributes

- Fitness: general physical actions, applying strength, persisting, healing
- Dexterity: precise and/or speedy manipulation of objects using hands
- Agility: running, jumping, dodging, climbing

### 2.4 Ability Attributes

- Competence: repetitive or physically complicated actions
- Insight: creative or explorative actions
- Theory: applying knowledge or mentally complicated actions

## 2.5 Spiritual Attributes

- Intuition: knowing without thought
- Focus : the power of concentrated effort
- Discipline: to do things many times done before

## 2.6 Character Attributes

- Contamination Resistance: see [Contamination Categories](#)
- Technological Affinity: dictates the Techlevel that can be used with minimal risk
- Luck: the general tendency towards good or bad random outcomes

## 2.7 Spiritual Skills, Techside

//TODO: General format and make words good yes. Every sublayer has up to 3 levels, only one sublayer can ever be on level 3, the rest are capped at level 2, transfer can be done. Every superlayer has up to 3 levels, and can only be increased by 1 for every related sublayer that is at level 2 or 3

### 2.7.1 Mecha Weapons Expertise

Mecha Weapons means any weapon too big to be carried, including stationary turrets. Usually Weapons are fired with [Focus](#).

#### 2.7.1.1 Laser

Laser or technically "Directed Energy Weapons"

are a group of weapons which typically do not use Ammunition, but raw Energy to inflict their damage. Their comparably low damage is made up for by being as accurate as a light beam, plus, the high amounts of particles in the air make for pretty lights.

#### 2.7.1.2 Projectile

Projectile Weapons or sometimes just "Guns"

are a group of weapons which discharge Projectiles towards a target. Ammunition has to be employed, but there are several different types available.

#### 2.7.1.3 Missile

Missile Weapons are a weapons that travel to the target to inflict damage, the difference to Projectile Weapons is that Missile Weapons are usually self propelled instead of being accelerated at their startpoint. Missiles are comparatively heavy and expensive, but most of them ignore shields and/or deliver special devices or bombs to the target.

#### 2.7.1.4 Attack Modes

- **Direct** Weapons are many and varied but share the characteristic of being pointed roughly at the target they are shooting. They require line of sight.
- **Indirect** Weapons are just as varied as Direct Weapons but have the key difference of not pointing at the target. Usually Up and in an angle, but not always. They require information about the targets position, but are free from line of sight restrictions, as long as the Attackstill has a valid way to travel to the target.
- **Seeking** Weapons have some sort of sensors or a dataconnection, and will follow a Target, as long as the Lock remains unbroken. This skill mainly deals with the correct usage and parametrization of such Weapons.
- **Beam** Weapons that emit long, sometimes even sustained streams, making them easier to aim and inflicting more damage, usually at the price of higher, sustained costs and less flexibility.

### 2.7.1.5 Melee

Melee Weapons of mech sizes are capable of inflicting utter destruction, but are usually limited to close ranges, which makes them not very useful at long distances.

- **Sharp** Melee Weapons have slightly longer range and are faster and usually do good damage. Most of them use the Movement System to get ready to attack again, so they may attack a lot of times on fast mechs. They also are the most precise of the melee weapons.
- **Blunt** Melee Weapons are usually slow, and easier to dodge, but their raw damage output is only matched by Artillery.
- **Unarmed** is not technically a category of weapon, but it represents being able to fight in melee without any special weapon, which allows for mostly disabling maneuvers.

### 2.7.2 Piloting Practice

- **Plain** Terrain
- **Desert** Terrain
- **Forest** Terrain
- **Arctic** Terrain
- **Mountain** Terrain
- **Urban** Terrain
- **Mud** Terrain
- **Marine** Terrain
- **Extreme** Terrain
- **Exo** is short for "Exoskeleton" and refers to Mechs that are barely larger than an extended Bodyarmor or Mechs that are generally not much bigger than their Pilot. (<1t)
- **Tiny** a versatile spot for Contraptions between Exo and Very Light, these include buggies, cars and a lot of small, fast Vehicles. (1-5t)
- **Very Light** include things like APCs and small fast walkers and light tanks.(5-15t)
- **Light** is about as big as a medium to main tank. (15-50 t)
- **Medium** is about as big as a heavy to superheavy tanks (50-150 t)
- **Heavy** is above superheavy tanks. (150-500t)
- **Very Heavy** LANDKREUZER (500t-1500t)
- **Ultra** ???

## 2.8 Spiritual Skills, Mageside

Magic is to be determined with the magicuser. This is an example of a Tribal Raven shaman

### 2.8.1 Raven

- **Talon** generally damaging and interacting spells
- **Eye** scouting and information spells
- **Wing** movement and utility spells

## 2.8.2 Generalized, Vague, Pointsink

## 2.9 Ability Skills

### 2.9.1 Biotech

Biotech is the Fusion of Biology and Technology

The ancient texts define Biotechnology as "any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use".

- **Red** Biotechnology Encompasses genetics, genomics, pharmacology, but also medical advances like genetherapy and automedics and deconamination of living things.
- **Green** Biotechnology is used every time the passive environment is exploited, from engineering high yield, low footprint farming to technologically harnessing the great and small Anomalies, including detoxification of materials and beings.
- **Blue** Biotechnology has developed from being used for aquatic Biotech, to include Megafauna, since the first Megafauna is told to having been spottet in the ocean. It allows scanning, categorization and assessment of Megafauna, including in some cases, harvesting Megafauna specialities.
- **White** or Industrial Biotechnology is used in Industrial processes and in handling some of the results of such processes. Creating and applying contamination-sealant is one of such processes.
- **Black** deals with with integration of Biology and Technology from enhancements or replacements like Cyberware or more conventional Prosthetics to synthesizing life, ressurection and strong AI. Seldomly useful and the most dangerous brand of Biotechnology, it is not taught often.

### 2.9.2 Computer

- Programming
- Usage
- Hacking

### 2.9.3 Engineering

- Repair
- Design
- Build

### 2.9.4 Aux

#### 2.9.4.1 Defense

- Decoys
- Shields
- Deflectors

#### 2.9.4.2 Offense

- Explosives
- Sniping
- Gadgets

#### 2.9.4.3 Recon

- Scanners
- Suppressors
- Sabotage

**2.9.4.4 Utility**

- Communications
- Reprocessing
- Movement

**2.9.5 Metal****2.9.6 Ceramics****2.9.7 Leatherworking****2.9.8 Boneworking****2.9.9 Woodworking****2.9.10 Woodcraft****2.9.11 Animalcare****2.10 Social Skills****2.10.1 Trade**

trading is used to [Trade](#)

**2.10.2 Diplomacy**

finding solutions that both sides want

**2.10.3 Misdirection**

includes lying and general providing of wrong information as correct

**2.10.4 Style**

panache! style! generally being impressive/following characters style

**2.10.5 Intimidation****2.10.6 Rhethoric**

Words, I have the best Words

**2.10.7 Command**

giving orders to others

**2.10.8 Empathy**

knowing how others feel

**2.10.9 Etiquette**

Knowing how to behave

**2.10.10 Rumor**

the skill at navigating the rumor mill, sifting through verbally repeated information and even starting rumors

**2.10.11 Art()**

may be any art that is used primarily for self expression and social interaction.

## 2.11 Mental Skills

### 2.11.1 Healing

important skill for [Treating of Wounds](#)

### 2.11.2 Research

acquiring and processing information from readily available sources

### 2.11.3 Instinct

used for sensing things that are not being paid attention to and as situational awareness in combat

### 2.11.4 Search

user for sensing things specifically declared by the player or looked for

### 2.11.5 Strategy

larger “zoomed out” decisions and their repercussions

### 2.11.6 Tactics

local “zoomed in” decisions and their repercussions also sometimes used with agility for advancing / retreating in a firefight

### 2.11.7 Navigation

if you need to know where you are and how to get to a place

### 2.11.8 Knowledge()

lore or science, any sort of mostly theoretical knowledge

## 2.12 Physical Skills

### 2.12.1 Heavy Athletics

do you even lift?

### 2.12.2 Running

running fast is usually fitness, but agility may come in if it is running to avoid being shot at

### 2.12.3 Jumping

boing

### 2.12.4 Throwing

yeet

### 2.12.5 Survival

wilderness skills

### 2.12.6 Acrobatics

Uses include: doging from cover to cover, backflips, balancing and many others

### 2.12.7 Weapon()

There are many weapons to choose from!

### 2.12.8 **Footwork**

Used mainly in close range, **footwork** describes the characters ability to move fast and decisively in combat, outmaneuvering would be enemies





# Chapter 3

## Trade

These entries in the table below are usually equivalent, local supply and demand may vary them greatly. Rolling for price variance might be done if there is no in-world reason why certain things might be more or less expensive. If that is the case the prices vary by  $((-1)^{1d10} \cdot 1d10 \cdot 5)\%$ . Additionally everyone a character trades with has self interest and will keep some of the tradevalue.

threshold	0	5	8	11	14	17	20
kept tradevalue	50	33	20	10	5	2	0

Goods, at 100% value each line is equivalent to one another and equivalent to 4 character creation points

### 3.1 Tradegoods

Storage	Article
10g	Elixir of Life (EOL)
100g	Alacast
500g	Experimental Tech Scrap (ETS)
1kg	High Tech Scrap (HTS)
1.5kg	Advanced Gene Therapy Medicine (AGT)
5kg	Medium Tech Scrap (MTS)
10kg	Potent Medicine
50kg	Low Tech Scrap (LTS)
50kg	Seeking Rockets
100kg	Processed Medicine
100kg	Basic Rockets
100kg	Artillery
200kg	Basic Medicine
500kg	Improvised/Herbal Medicine
500kg	Base Tech Scrap (BTS)
500kg	Basic Ammunition
1000L	drinking Water (500days of drinking)
500L/35kg	Liquid Hydrogen
1t	Coal
350L	LiquidCombustionFuel
100kg	High Energy Rations (0.4kg/(day·person))
1t	Normal Food (2.5 kg / (day·person))
1	Medium Quality Blueprint

Open for more Suggestions Example:

Character A wants to get rid of 5 tonnes of Base Tech Scrap in favor of more easily transportable Alacast in a local Dome.

If there are no storyelements influencing the prices, they are rolled. First, the value of the BTS is determined to be (Roll: 6, 4)  $((-1)^6 \cdot 4 \cdot 5)\% = +20\%$ . Then the value of Alacast is determined to be (Roll: 10, 3)  $((-1)^{10} \cdot 3 \cdot 5)\% = +15\%$ . The result is that the rate between BTS and Alacast is  $500 \cdot 1.15/100 \cdot 1.2 = 4.79$

Which means character As scrap is worth  $5000kg \cdot 4.79 = 1043g$  of Alacast. He barter (with Resolve and Trade for 3, 2) with a local merchant and manages to negotiate terms in which the merchant retains (Roll: 2, 4, 5, 8, 9

$\Rightarrow 9 \Rightarrow 10\%$  of the Traded value. He decides to trade and gets 938 grams of Alacast.

## Chapter 4

# GameSystems

### 4.1 Health and Contamination

#### 4.1.1 Healing

For living entities damage is represented by wounds with the severity being the remainder of the damage after all defenses were subtracted. Humans roll a Fitness-Check once a wound starts healing. For every met threshold of the wound one level of regeneration rate for that particular wound is noted down. If a wound is worsened/increased the Fitness-Check is repeated, selecting the worse of the two results. If a wound is successfully and substantially improved, the Fitness Check is repeated, selecting the better of the two results. Regeneration can be aided or slowed by circumstances, such as therapy or environmental conditions. Resonance of frequency 1 lowers the healing rate by its amplitude, even going negative, while resonance of frequency 10 improves healing rate by its amplitude. Wounds do not necessarily lead to death or permanent impairments, but if they remain untreated for a long time, or there is a runaway effect on one of them, the Storyteller may decree permanent repercussions, as appropriate, including Death. Regeneration accumulates over successive days, and once the current severity is reached, the wound is lowered by 1 severity and regeneration is reset to 0. If regeneration rate is negative, and the regeneration rate falls below 0, regeneration progress is set to the wound severity and then the severity is increased by 1. Standard thresholds are 2, 4, 6, 8, 10, 12, 14.

The following table lists healing time in days for severity and hit thresholds.

Severity	1	2	3	4	5	6	7	8	9	10
1	1 d	1 d	1 d	1 d	1 d	1 d	1 d	1 d	1 d	1 d
2	3 d	2 d	2 d	2 d	2 d	2 d	2 d	2 d	2 d	2 d
3	6 d	4 d	3 d	3 d	3 d	3 d	3 d	3 d	3 d	3 d
4	10 d	6 d	5 d	4 d	4 d	4 d	4 d	4 d	4 d	4 d
5	15 d	9 d	7 d	6 d	5 d	5 d	5 d	5 d	5 d	5 d
6	21 d	12 d	9 d	8 d	7 d	6 d	6 d	6 d	6 d	6 d
7	28 d	16 d	12 d	10 d	9 d	8 d	7 d	7 d	7 d	7 d
8	36 d	20 d	15 d	12 d	11 d	10 d	9 d	8 d	8 d	8 d
9	45 d	25 d	18 d	15 d	13 d	12 d	11 d	10 d	9 d	9 d
10	55 d	30 d	22 d	18 d	15 d	14 d	13 d	12 d	11 d	10 d
11	66 d	36 d	26 d	21 d	18 d	16 d	15 d	14 d	13 d	12 d
12	78 d	42 d	30 d	24 d	21 d	18 d	17 d	16 d	15 d	14 d
13	91 d	49 d	35 d	28 d	24 d	21 d	19 d	18 d	17 d	16 d
14	105 d	56 d	40 d	32 d	27 d	24 d	21 d	20 d	19 d	18 d
15	120 d	64 d	45 d	36 d	30 d	27 d	24 d	22 d	21 d	20 d
16	136 d	72 d	51 d	40 d	34 d	30 d	27 d	24 d	23 d	22 d
17	153 d	81 d	57 d	45 d	38 d	33 d	30 d	27 d	25 d	24 d
18	171 d	90 d	63 d	50 d	42 d	36 d	33 d	30 d	27 d	26 d
19	190 d	100 d	70 d	55 d	46 d	40 d	36 d	33 d	30 d	28 d
20	210 d	110 d	77 d	60 d	50 d	44 d	39 d	36 d	33 d	30 d
21	231 d	121 d	84 d	66 d	55 d	48 d	42 d	39 d	36 d	33 d
22	253 d	132 d	92 d	72 d	60 d	52 d	46 d	42 d	39 d	36 d
23	276 d	144 d	100 d	78 d	65 d	56 d	50 d	45 d	42 d	39 d
24	300 d	156 d	108 d	84 d	70 d	60 d	54 d	48 d	45 d	42 d
25	325 d	169 d	117 d	91 d	75 d	65 d	58 d	52 d	48 d	45 d

### 4.1.2 Treatment

Treating of wounds is usually done with a Competence or Theory + Healing Check, where medicine and equipment can provide modifiers or advantages. Many wounds require medicine to be treated at all. Treating them without will either not be possible or generate disadvantage. Standard thresholds are 8, 11, 14, 17, 20, with results below 5 having negative consequences.

Treating ingress wounds requires at least 10g of Alacast, with the treatment of contamination inflicting the sum of all dice including and below or equal to a threshold determined by the Technology used (i.e. 8 for Saline-Alacast-Solution Injection) as damage. The level of ingress wounds and contamination is directly lowered by the number of hit thresholds.

In all cases Alacast is used to precipitate Contamination from the body, the crudest way is to introduce Alacast to the bloodstream to precipitate it inside the body and hope the body expels it on its own, more refined ways are basically a dialysis or a very specific targetting of crystallization seeds and retrieval of precipitation clusters.

### 4.1.3 Medicine

Medicine is used while making a Treatment Check. Each Treatment of a wound using Medicine consumes severity·100g of the medicine and provides the specific bonus.

- **Naturopathy** uses healing and the respective field of the medicine. It provides a good floor and good threshold bonuses.
- **Specialized Medicine**(name pending) live mixing of specialized cures from ingredients uses healing and the respective field of the ailment. It has no floor, but scales the best.
- **Broadband Medicine** is mass produced, refined medicine and uses a combination of Healing, Science(Medicine) and Red Biotech. It has a good floor, but low scaling.
- **Alacast** has no direct medicinal benefit, but effectively combats Contamination in all fields
- **Elixir of Life** is the top notch medicine, rejuvenates and heals nearly anything. Sadly, it contaminates the user.

### 4.1.4 Categories

Every Character has a Contamination Resistance rating ranging from 1 to 5, but in-world they are categorized (by supervivo) from A to C.

- **CatA** Humans are usually Supervivo and usually have low Contamination Resistance and high Affinity.
- **CatBs** are outlaws, traders, hermits or for some other reason living outside the Domes and Tribes. They can have any, but usually have medium Contamination Resistance and medium Affinity
- **CatCs** are usually Tribals with high Contaminatin Resistance and low Affinity.

Entity	Contamination Resistance	Affinity requirements
Experimental	1	5
High Tech	2	4
Mid Tech	3	3
Low Tech	4	2
Base Tech	5	1

### 4.1.5 Contamination

Contamination is a term used to describe the amalgamation of technology destroying nanoweapons, radiation, pollution and general environmental hazards. Contamination is airborne, waterborne, bloodborne and permeates pretty much everything in the environment. It is usually assigned a level describing its intensity. Only within the Domes of the Supervivo, inside a Mech or in a similarly purified environment can the Contaminationlevel ever reach 0.

Levels below 0 are necessary for taking apart Experimental Tech Technology, but getting an area so pure is hard.

- Levels 1–3 are rare areas of low Contamination, like mines, airlocks, outdoor markets, outdoor settlements and so on. Even subjected to this level of Contamination for months, it will not cause death. However, for the more fragile Members of Society, the general quality of life can be greatly diminished.

- Levels 4–6 are the most common and usually inhabited by Cat-B. People without a form of permanent resistance can die here, but life expectancies should be a few months at least.
- Levels 7–11 are usually inhabited by tribals but sometimes a few Cat-B have to make Camp here. Anyone without contamination protection will die here within a few weeks.
- Levels 12–15 are sparsely populated by hardy Tribals, but usually deserted.
- Levels 16+ are the most hostile areas. Weird Things happen here, but some say that there is great treasure. . .

There is no upper limit for contamination levels. If an entity is in an area with contamination, every hour it receives the local contamination as contamination damage.

#### 4.1.6 Contamination damage

Anytime the an entity receives contamination damage, the character lowers that damage with a roll on their contamination resistance and fitness plus all applicable modifiers (external only for contamination ingress). Remaining Damage above 0 is applied to the ingress wound (extending the existing ingress wound if possible, otherwise creating a new one) and raises contamination of that character by 1. The contamination of the character is applied as an internal bonus on the contamination resistance result, but reduces their healing rate, including going negative.

When a character directly interacts with an entity, the  $\text{Charactercontamination} \times 2$  of that character is applied as Contamination damage, resisted by a Contaminationresistance of the Entity. This is repeated every hour if the interaction continues. While directly contacting an entity only the internal resistance applies, direct contact might be piloting a mech, using a gun or shaking someones hand, except when proper seals are in place.

#### 4.1.7 Seals

A seal of a level of X lowers the level of the Contamination behind it by X (they are usually from 6 upwards) Contamination penetrates (and then slowly equalizes the Contamination) weak or damaged seals, broken seals offer a delay at most.

Air has to be purified separately or enriched with oxygen. (One human consumes about 500–600 litres of oxygen per day.) The Domes of the Supervivo for example usually have a level 25 hermetical seal with purified and oxygenenriched air.

Examples of human sized external contamination modifiers or in-place options:

- 1 An alacast infused rag or a shut wooden door (although oxygen may run out)
- 2 a breathermask or a simple wooden door airlock (again, oxygen)
- 3 a partial gasmask or an airtight airlock
- 4 a heavy partial gasmask with Goggles or a basetech air filtering facility
- 5 a full gasmask
- 6 as above + sealed clothing or lowtech air filtering facility
- 7 as above + midtech scrubber (a little backpack)
- 8 as above + hightech air scrubber or midtech air filtering facility
- 9 as above + full mask with air from a compressed air tank
- 10+ specially sealed suit with airtank or hightech filtering facility



# Chapter 5

## Combat

### 5.1 Life

If an entity gets damaged, the damage is decreased by the result of the roll made by the outermost layer of defense. If the remaining damage is above 0, that remaining damage is usually passed on to the layer below. Layers can fail, and then no longer participate during damage prevention. If damage passes all layers of defense, the remaining numerical value of the damage is noted down as the severity of the damage. For a Biological Entity damage is wounds and may heal..

### 5.2 Death

There is no fixed numerical amount of lifepoints, but every wound/instance of damage will impede the Entity. This can manifest in many ways, like penalty dice for associated activities, higher botch/malfunction frequencies, and many more. If there is a lot of damage, machines may become inoperable, people might pass out. Death and Destruction only occur when the Gamemaster decrees so.

### 5.3 Rounds

Combat is done in rounds. Each round is 5 seconds long. Every character present acts in turn (determined by circumstances or a Stealth, Perception, Willpower or other situational check) and can usually move and do an action (an attack or action that can be done in the remaining time).

### 5.4 Detailed combat

1. Every participant (technically in secret) decides on what they are going to do.
2. TODO: make words good: Every participant rolls the worst applicable roll of any actions they plan to undertake in that round at once.
3. Each defense is determined, depending on the current action of the participant.
4. Each offense is determined, depending on the current action and target of the participant.
5. Non-offensive Actions are resolved first, then offensive actions in descending Order of rolled result.

#### 5.4.1 Defense

Defense is usually checked with Agility and

- **tactics** on ordered advance/retreat
- **instinct** in general mayhem
- **footwork** in close range
- **running** when zig zagging

Evasion levels are determined with the result of the defensive interpretation of the combat roll and the character specific evasive threshold set.

5.4.2 Offense

Offense level are determined with the result of the offensive interpretation of the combat roll and the range and weapon specific threshold set.

	target	penalty
Aiming Penaltydice	head	3
	hand	2
	legs	1

5.4.3 Hit Calculation

If the offense level of an attack is at least 1, the hit roll is made. It consists of a singular die, with the offense levels as bonus dice, and the defense levels as penalty dice, see [Bonus- and Penaltydice](#). The hit quality will be a number from 1 to 10.

hit quality	result	damage modifier
1	far miss	0%
2	miss	0%
3	close miss	0%
4	near miss	0%
5	tangential	1%
6	graze	10%
7	slight hit	20%
8	partial hit	50%
9	hit	100%
10	full hit	100%

On a full hit, the attacker inflicts the wound were planned The specific damage to apply will be listed with the weapon.



# Chapter 6

## Tech

Electrolysis splits 1 L H<sub>2</sub>O into 622.22 L Oxygen und 1244.4 Hydrogen using 3.7037 kwh

### 6.1 Engineering

#### 6.1.1 Blueprints

Blueprints are required for Engineer(Build) tasks. To create a blueprint a character needs the appropriate materials, usually a computer of some sort, but even sand and a stick can work. The time required is based on the complexity of the project. To find out if the blueprint is within the capabilities of the character check their specific knowledge + Theory against the difficulty of the project. If at least one threshold is hit, the blueprint is viable. Starting quality of a blueprint can be negative. Every threshold hit increases the quality of the blueprint by 1. If the character does not have the Appropriate Knowledge he can check sufficiently similar knowledge with an appropriate penalty dice (1 per techlevel, 3 for different module classes on the same techlevel) Even a blueprint with a negative bonus is useful, since it enables building the item in question at all.

A blueprint states the name of the Item, its category and the required materials.

#### 6.1.2 Building

Building something requires a blueprint, the raw materials and the necessary tools. Check Engineering modified by the blueprint and the conditions. The finished product is [check result · 10%] Efficient.



# Chapter 7

## Character Creation

First, get a general idea who your character is and what they do. Note your Character name, your name, the name of the Campaign and your concept for the character on the charactersheet. This will help you choose in the following steps.

### 7.1 Step 1 - Categories

Choose Category, Fate and Affinity

1. **Resistance** describes how able the Character is to survive the hardships of the outside world
2. **Fate** is “Beginners Luck” and the room to grow of the character, separating NPC from PC.
3. **Affinity** for technology allows usage of complex and futuristic gadgets

all start at 1, then 7 points are divided between them, maximum is 5.

### 7.2 Step 2 - Scores

#### 7.2.1 Abilities

Order Social, Physical, Mental, Spiritual and Ability in the order that you think they are most usefull to your character concept.

In your primary priority you get 16 points, in your secondary priority you get 12 points and in your tertiary priority you get 8 points. The remaining two Priorities get 4 points.

Skills range from 1–3:

1. proficiency
2. mastery
3. special expertise

Some skills are grouped, the group has to receive a point first, after that up to 2 points can be spent to specialize into the subskills, the specific rank of a skill is the group + skill.

#### 7.2.2 Attributes

Attributes, which range from 1–5 can be unlocked by allocating spent skill levels.

To raise an attribute a level, 1 point per current level is required, so the levels have requirements of 1;2;3;4;5. With total costs of the levels being:

1. 1
2. 3
3. 6
4. 10
5. 15

To have an Attribute at Level 5, 15 total levels in Skills ( $8 \cdot 2$  or  $15 \cdot 1$  or anything between) are required. To Reach Attributes of 5/5/5 120 total levels of skills would be required. Attributes can be 0, making the character unable to attempt rolls that would use that attribute.

### 7.2.3 Finalizing

All skillpoints need to be spent, unallocated skillpoints remain to be allocated to attributes later. Reskilling/attributing a new character can be done if player and Storyteller agree. Every level 1 skill requires some sort of mention in the backstory of the character, level 2 skills should be given an explicit reason and level 3 skills should have an explanation of how the character has reached peak human ability in that skill.

Later Points are awarded to specific Skills through roleplay and spending Off-time training. These Skillpoints can then be allocated to an Attribute at any time.

## 7.3 Step 3 - Finishing touches

You get 100 Credits, you can spend these on:

- Your [Mech](#)
- [Goods](#) (3 per credit)
- Gear, Spells, etc
- [Bonus Character creation points](#) (5:1)

# Chapter 8

## Mechs

### 8.1 Sizes

Sectors	Mechclass	Weight
0.5	Human	0.1t
1-2	Exo	<1t
3-4	Tiny	1-5t
5-6	Very Light	5-15t
6-7	Light	15-50t
8-9	Medium	50-150t
10-11	Heavy	150-500t
12-15	Very Heavy	500-1500t
16+	Ultra	>1500t

Modules are assigned to sectors. Each sector has a size of 1, a module takes up some of that size. Modules can be spread over multiple Sectors, as long as they are adjacent, although this will increase the likelihood of it sustaining damage. Some Modules require a Hardpoint, there is generally only one Hardpoint per Sector.

A Mech has an effective Tech Level of the Tech at the 90% point of the sizes modules ordered by Tech Level.

Contamination Damage applies to the highest Tech modules first. Each Module can be damaged individually.

### 8.2 Systems

A Mech needs a movement system, energy and heat systems and should probably have a seal, weapons and support systems.

#### 8.2.1 Costs

Systems Examples

Tech	Credits Cost	Examples
B	4	Water Distillery, Rail based movement system, simple wheels, Manned gun, Ramshield, Floatation, Metal Armorplating , Extra Cargo (10), steam engine, passive cooling
L	5	Lowtech Detox-Decon Equip(LDDE; +1), suspended wheels, tracks, bipedal, Dynamo , Autoturret, Jumpjets, Mech sized Sword, water cooling circle, basicHeatsink
M	6	Shields, flexible/balanced bipedal, Boostjets, Deployable Solar Panel, Sensorarray, MDDE (+2), Base AI system, Mech sized Weaponry (Advanced (Vibro/-electro/Monofilament) Sword), Rocketlauncher, Water venting system, midtech Heatsink
H	7	BCI, Advanced AI, WeaponLaser, Sustained Flight, Advanced Shields, Nano Repair Cloud, Automedic, OVERDRIVE mode, Hightech Heatsink
E	8	Quantum Lookahead Sensors, Blink Teleporter, Timerift Shields (Delays Damage 1d10 rounds), EnergySword

Designtarget (TODO: write words good) for normal fighting mech

- 20% movement
- 20% weaponry
- 5% energy
- 5% Cargo
- 50% + armor

### 8.2.1.1 Energy Systems

Energy Systems usually do not use a hardpoint.

**8.2.1.1.1 Power to Weight** is how much maximum output power per weight the system provides.

**8.2.1.1.2 Input** of an Energy System is generally considered its "fuel", but can also just be batteries or similar. The Input is stored with other Cargo.

**8.2.1.1.3 Output** are "Modes". They each provide an energy budget for the mech, different Situations might warrant different modes, generally there are 2: low power mode where the range is maximized and high power mode, where the output is maximized.

**8.2.1.1.4 Efficiency** is the rate at which Input is consumed per mode.

Type	w per kg	heat per w	modes	input	efficiency
Basetech					
Steampower	3.5	5	100%/25%	Coal	5%/10%
FlyWheel	100	0	scalable	stored	loses 10% per turn
Crank	10-500/human	0	scalable	Labor	-
Lowtech					
Combustion Motor	700	0.5	10%	Combustible	40%
Midtech					
PEM	500	0.1	0.05/0.02	HFC	90% or HFC
Solar Panel	5000	1	On/Off	Sunlight	Contamination dependent
Hightech					
Reactor	1500	0.5	100%-10%	Fuelrods	80%
Capacitor	40kJ	0.1	in/out	electricity	loses 10% per hour

**8.2.1.1.5 HFC-10** 10 liter - hydrogen fuel cell: Cylinder 20cm diameter, 35 cm height or 23cm cube=10L, containing 9 MJ

**8.2.1.1.6 HFC-50** 50 liter - hydrogen fuel cell: Cylinder 40cm diameter, 40 cm height or 37cm cube = 50L, containing 45 MJ contains low power sub system used to power up basic systems (like hydrogen gas pumps for the PEM Stacks)

**8.2.1.1.7 Solar Panel** Deploying takes 5 turns times 100w or 5 minutes labor, any damage received while deployed will also damage the Solar panel, production halved every 5 contamination levels, only works during day

### 8.2.1.2 Movement Systems

**8.2.1.2.1 Efficiency** is the ratio of power consumed to power used to move the mech

**8.2.1.2.2 Drag** is the general amount of power wasted the faster the mech is going

**8.2.1.2.3 Power to Weight** is how much maximum movement power the system can employ per weight

Type	Efficiency	Drag	Power to Weight	hardpoints	Extra
Basetech					
railbased	95%	0.8	500	1-50%-4	rails
simple wheels	75%	1	1000	25%	flat terrain
floatation system	90%	20	100	10%	water
Lowtech					
complex wheels	80%	0.4	2000	25%	somewhatflat terrain
tracks	30%	15	500	33%	rough terrain
bipedal	50%	2	200	25%	all terrain
jumpjets	10%	1	1000	1	upwards
Midtech					
flexible bipedal	60%	1.8	300	25%	like a large human
boostjets	20%	1	1500	2	any direction
Hightech					
Spiderwalker	40%	2	600	50%	any surface

Accelleration is noted down as 5 steps in 5 second intervals each (calculated from mech weight and power)

### 8.2.1.3 Heat Systems

Warning: ALL Dissipated heat contributes to IR signature

**8.2.1.3.1 Input** is the amount of power the Heat System requires to function actively

**8.2.1.3.2 Weight** direct weight of the system

**8.2.1.3.3 Cooling** how much heat is dissipated, passively/actively.

**8.2.1.3.4 Capacity** how much heat can be stored in this system. Cumulative for the mech.

Type	Input	Weight	Cooling	Capacity	Extra
Basetech					
Small Heatsink	0	0.5t	0.2	15	Storage
Lowtech					
Radiator Vent	10kw/t	scalable	1/t / 5/t	1 Hardpoint	
Large Heatsink	0	1t	0.5	50	Storage
Midtech					
Optimized heatsink	0	1t	1	80	Storage
Coolant Dump	1MJ	4t	0/100	100	Decoy
Radiator Wings	1kw	2t	10%	100	Deploy
Hightech					
Fractal heatsink	0/1kw	2t	3/0	200	Storage
OVERDRIVE	5MJ	1t	0	Gadget	

**8.2.1.3.5 Coolant Dump** : When triggered, releases 100 stored heat together with 100L water, as a thermal barrier

**8.2.1.3.6 Radiator Wings** : Deploying takes 5 turns times 1kw or 5 minutes labor, any damage received while deployed will also damage the Radiator Wings: radiates 10% of total system heat, as long as 1kw energy (for coolant pumping) is applied.

**8.2.1.3.7 Overdrive** : When triggered, enter overdrive mode: able to act at double speed, stored heat is spent instead of gained. When heat drops to 0 or below, Mech shuts down for 2d10 rounds and Overdrive requires a Competence, Gadgets-Repair; 10m; Threshold of 10 to repair.

#### 8.2.1.4 Seals

**8.2.1.4.1 Level** how much the seal reduces Contamination behind it.

**8.2.1.4.2 Resistance** how much damage it takes to damage the Seal.

Tech	Seal Level	Resistance	Cost/Sector
Base	6	2	1
Low	13	3	2
Mid	21	4	3
High	30	5	4
Experimental	50	2	8

#### 8.2.1.5 Weapons

##### 8.2.1.5.1 Damage

##### 8.2.1.5.2 Thresholds

##### 8.2.1.5.3 Costs

**8.2.1.5.4 Skills** Melee weapons rely on the movement System, so their costs are in meters that are used to attack rather than move

Type	Damage	Thresholds				Costs	Weight
BaseTech							
Metal Sword	10	10m[5,7,9,11,13,15,17,19,20]0				30m	5t
Manned Turret	X	X				manual labor +X	X +50%
Lowtech							
Heavy Machinegun	3	100m[3,6,10,14,18]20 500m[5, 8, 12,15]10 1000m[7,10,14]5 2km[11,16]5				5kg, 5H	100kg
Light Artillery	12	8km[15]5 indirect 7km[8,12,16,20]1 50m[10,20]3				50kg, 10H	8t
120mm Smoothbore	14	100m[8,11,14]8 500m[7,9,11,13]15 2km[8,10,11,13,14,15,20]20 4km[11,13,15,20]10 indirect 8km[13,17]5 indirect				20kg 5H	20t
Midtech							
Autocannon	8	10m[12]3 200m[5,8,11,14,17,20]15 1km[8,12,16,20]20 2km[10,14,18]10 4km[13,17,20]5 indirect				7kg	25
Basic Pulse Laser	2	2	9	E S	5E 8 H	per 200	Energy.Pulse
Precision Cannon	2	3	13	P S	5E 10H 0.1A	per 1k	Projectile.Direct
Rocket Launcher	4	2	15	P S	5H 0.12A	per 300m	Rocket.Dumbfire
Hightech							
Rocket Platform	3	3	16	P S A	5H 0.2A	-	Rocket.Guided
Railgun	2	5	14	P S	15E 5H 0.01 A	100/1k/3k/8K/20k	Projectile.Direct
Advanced Pulse Laser	0	3	11	E S/R	7E 8H	per 400	Energy.Pulse
Ramping Beam Laser	X	2X	3	E R	XE 2XH	per 5k	Energy.Beam



Specials: Swords: Pierce Shields that are not modulated to their damage type  
 Manned Turret: X Depends on the mounted gun and the skill of the gunner  
 Light Artillery: Attacks take 1s per 300m distance, rounded up, minimum range 100m  
 120mm Smoothbore: Can only fire every second round, requires Indirect for targets further away than 2k  
 Autocannon: for Burst (alternative values) mode Mech has to stand  
 Basic Pulse Laser: only sizeclass falls off  
 Precision Cannon: Allows Sniping  
 Rocket Launcher: Ignores Shields  
 Rocket Platform: Ignores Shields, Will hit if Lock is sustained (Roll strengthens Lock)  
 Railgun: requires Indirect for targets further away than 2k, allows sniping  
 Advanced Pulse Laser: only sizeclass falls off  
 Ramping Beam Laser: X goes up when shooting, goes down when not shooting, X is capped at M, allows sniping, only sizeclass falls off

## 8.3 Support

shields and coffee machines blurgh

## 8.4 example

100t, 8 sectors

5 t Power: 20–500kw/t => 2.5MW, Input HFC50 (4KG), 2.5 MW: 10 seconds at maximum load, efficiency 55% 100 kw, 7 minutes at minimum load, efficiency 93% 20t Movement: Efficiency 40%, Drag: 1, 30 kw/t (100t => full power 9,13,16,30, 2000MW) 25%– 8sectors\*3layers\*2t armor = 48t 73%– 5t 120mm smooth 5t 50 mm auto 83%– cargo heat supportsystems

## 8.5 Shieldsystems

ShieldModules can be dedicated to specific Tasks, usually Coverage (C) and Reboot(R), the total amount of Modules is referred to as M, while X relates to Special, see below the Table

Type	Level	Cost	Overwhelm	Coverage	Reboot	Coldboot
Basetech Applique-Armor	3	0/0	destroy F block	5+15·C	-	5 min + Check[Engineer](5)
Lowtech Deflector	X	1E/5E+3H	-	radius 2·C m	10s	instant
Basic Shield	1	0.5E/0.2E	5H, dampen, disable	12+C·8	C-R + 5E	5r
Midtech Shield	2	1/0.5(2H)	7H, dampen, disable	10+C·13	12/R (round up)	10 E
Hightech Advanced Shield	4	1/2(3H)	15H, block, disable	15+C·10	8-R + 10E	5r

Level: see 3d10 Table in the beginning of the Book

Cost: for Charging/Active states, per round

Overwhelm: Heat that might be released plus

destroy X destroys X modules

F means the difference by which the Layer of Defense Failed

block means pass through no damage to the next Layer of Defense

dampen means pass through F damage

disable means that the system is disabled until it is booted again

Strain: Heat Costs in Parenthesis are generated everytime the shield successfully blocks damage. D is the Incoming damage.

## 8.6 Armor

Type	Level	HP	Coverage	Damage	Special
BaseTech					
Extended Cargo	1	$\sqrt{M}$ rounded down	14·M	destroy 1	7 Cargo Spaces (Cargo is destroyed with the modules)
Metal Plating	4	5	5+10M	destroy F	counts twice towards movement system percentage
Lowtech					
Composite	4	$2 \cdot \sqrt{M}$ rounded	$12 \cdot M$	destroy 1	
Midtech					
Active	1/4	5	12+10·M	short out 1	draws 10 Energy when hit 1h Check[Electronics] ( $\geq 8$ to fix; $\leq 2$ to destroy)
Speed	2	3	20+7M	brick 50%	1E/50km/h; Vent 1H/ 50 km/h (increase signature by vented Amount) 30m 0.1MTS Check[Engineer] ( $\geq 9$ to fix; $\leq 5$ to destroy)
Hightech					
Advanced	5	X	10+15·M	shorts out 1 Energy System	1h Check[Electronics] ( $\geq 8$ to fix; $\leq 2$ to destroy)

## 8.7 Misc Modules

If a Module is smaller than a Module slot its size is less than 1

## 8.8 Basetech

Water Distillery

Energy Cost: 2

Heat: 10

Size: 0.5

Turns 10L of Dirty Water into 10L of Contaminated Water per hour

Requires Detox Rating of 1

Cargo compartment

Cargo Space: 10

## 8.9 Lowtech

Basic Food Processor

Energy Cost per operation: 1800 (3e/s)

Heat: 5/s

Size:0.5

Detoxes 1kg of Food in 10 minutes

Requires Detox Rating of 2

Basic Air Filter

Energy Cost per operation: 2400 (4/s)

Heat: 2

Size:0.5

Decontaminates and pressurizes 5000 L of air in 10 minutes or double without pressurizing.

Requires Decon 1

Basic Decon Equipment

Energy Cost per operation: 18k (5/s)

Alacast Cost per operation: 10g

Heat: 10

Size: 0.5

Allows to turn Contaminated Objects into uncontaminated objects at the rate of 10kg/h, if suitable

Required Decon 2  
 Optical Sensors  
 Energy: 1  
 Size: 0.25  
 Rating: 100  
 Provides Targetting Lock is obtained  
 Visual Lock: Distance/Rating  $\leq$  Target Size (+Camouflage and visual impairments)  
 Thermal Sensors  
 Energy: 1  
 Size 0.25  
 Rating 100  
 Thermal Lock: Distance/Rating  $\leq$  Target Thermal Signature  
 Basic Computer System  
 Size: 0.5  
 Energy: 0.1  
 Module: Processor or Memory

## 8.10 Midtech

ComputerSystem: Size: 0.1 Energy: 0.1 Module: Processor or Memory  
 Nondeterministic Computation Core:  
 Size 0.5  
 Energy: 0.5  
 Module: Processor  
 Requires Black Biotech 3  
 Extended Decon Equipment  
 Energy Cost per Operation: 36k (10/s)  
 Alacast Cost per Operation: 5g  
 Size: 0.75 Allows to turn Contaminated Objects into uncontaminated Objects at the rate of 100kg/h if suitable  
 If used on Humans, Roll Red Biotech, on 9 or more, removes one CharacterTaint.  
 Always Inflicts Wound of Level 11-RollResult  
 Requires Decon 3  
 Extended Detox Equipment:  
 Energy Cost per Operation: 36k (10/s)  
 Size 0.75  
 Allows Detoxing and Preparing of up to 1t/h  
 If used on Humans, Roll Red Biotech, on 6 or more, remove all Infections and appropriate Toxins.  
 Always Inflicts Wound of Level 8-RollResult  
 Requires Detox 3  
 Automedic: Energy Cost: 6k(variable - 10/s for 10 min)  
 Size: 0.75  
 Supplies tools of Medic/ supplies good operating conditions for Medic / reduces the use of Medicine by half / allows stasis  
 Roll Red Biotech, if the roll surpasses the wound, supplies an operating character with a temporary Medic skill and double Advantage or autonomously attempts the procedure at Level 3 mod -1.  
 If not, Instead supplies one Advantage.  
 Software may supply the Red Biotech roll even autonomously.  
 Stasis is automatic and slows down the daily/hourly tickrate (including Healing and Contamination) by a factor of 10 (additive) for every energy point per second. This is a medical coma, not timedilation.

## 8.11 Hightech

Advanced Detox-Decon Equipment  
 Size: 1  
 Energy Cost per Operation 72k (variable 20/s for 1 h)  
 Alacast Usage per Operation if Detainting: 1g/t of raw material, 10g/human  
 Detoxes and Detaints up to 5t of material, including air and water.  
 Living Entities suffer no harm, and on a 4 or more on a Red Biotech Roll lose one Taint level. Furthermore all Infections and Appropriate Toxins are removed.  
 Requires Detox 4 and Decon 4  
 Advanced AutoMedic

Energy Cost: 3k (variable - 5/s for 10 min)

size: 1

Allows Medic Rolls/ supplies very good operating conditions for Medic Rolls/ reduces the use of Medicine by 90%/allows Ressurrection

To Treat a wound:

Roll Red Biotech, if the roll surpasses the wound, supplies an operating character with a temporary Medic skill and triple Advantage or autonomously attempts the procedure at Level 4 mod -1.

If not, Instead supplies one Advantage or autonomously attempts the procedure at Level 2.

Software may supply the Red Biotech roll even autonomously.

To Ressurrect:

requires 1g of EOL per total spent points on a character (or 20\* the average level of an NPC) Roll Black Biotech, every 15% missing from the corpse or order of magnitude in days that has passed since the time of death lowers the final score by 1. If the roll succeeds, place 5 wounds of severity 15-result on that character, they lose one level from the highest Ability and one from the highest Skill and are alive again. If the roll does not succeed, 5% of the total corpse and the dosage of EOL is lost.