

Engineer

Tinker, inventor, gunsmith, mechanical scientist, mathematician

The urge to experiment and tinker has been one that many throughout history have felt the call of. From the first person who put a wheel on a cart or a builder who figured out how a pulley worked. These discoveries may be considered rudimentary now, but it is that sense on innovation and urge to elevate human existence that has led to the discipline of engineering. Throughout the ages these inventors pushed forward an advanced machines and devices that made humanity's lives easier.

Engineering in modern times has progressed quite a ways from its humble beginnings. It is considered a fairly new profession, but without all of the innovation that came before it would not be the cutting edge science it is today. Much of the early work of engineer's centuries past now fall in the bailiwick of artisans who follow tried and true processes for making tools and devices. Engineering as they are known today by the people of Attus know it rose to prominence in the last 100 years or so, as scientific knowledge became codified and humanity's thirst for exploration increased. Engineers deal in the creation of complex technological and mechanical items that are used to make life much easier, and more deadly. Engineers are the artisans of the modern age who live on the cutting edge of technology creating anything they can dream up. Sometimes they create amazing results, and sometimes they can fail horrifically.

The major breakthrough that split engineer from artisans was the discovery of steam power and clockwork. These new sciences allowed for more sophisticated machinery and for the ability to power things based on fuel as opposed to the power of humans or beasts of burden.

How it Works:

Engineers do not necessarily know what they are making since they often follow an experimental approach of building devices and machinery based on the principles of physics. Sometimes engineers will do research which will give them a better idea of what a final device will do. Through research and study engineers are able to slowly understand how to better create items that do precisely what they want and to augment and improve upon existing designs.

Engineers produce bullets, oil, petrol, firearms, monocles/goggles, high tech protective gear, engines, and other powered devices with moving parts.

The engineer profession generally does NOT cover traps, explosives, melee weapons, healing/potions, or research beyond occasional bits of information that pertain DIRECTLY to the engineering system.

Engineer's in-game will want to gather **components** or create them to accomplish their goals. Once an engineer has the components they want they can assemble finished items such as firearms, devices, or engines. An engineer can only use one category of component in any given item.

*For instance if an engineer had 2 components labeled as **pistons**, 3 components labeled as **joints**, and 1 component labeled as a **lens**, they would only be able to use 1 out of each category. So 1 piston, 1 joint, and 1 lens in the item they were building.*

Design Points (DP) represent the complexity of an item an engineer can make. All components have a design point rating. An engineer may build an item that contains components, where their DP rating adds up to the maximum DP the engineer has.

For example:

A 1 DP component could be any of the following; compact efficient, simple, etc. A 3 DP component could be; bulky, inefficient but powerful, complicated, interconnected, etc. The DP of the component does not indicate its rarity.

The table below lists the base maximum DP an engineer has available based on their rank in engineering.

Ranks in Engineering	Max Design Points*
1+	1
11+	2
21+	3
31+	4

*Maximum DP may be raised by skills, schematics, or items.

What Engineers Can Make:

Engineers can produce **three** green tagged items, usable by anyone, that are used to enhance or fuel various other items engineers create. These are **quality bullets, oil, and petrol**. They can also create **three groups** of yellow tagged items. These are **firearms, devices, and engines**.

Quality Bullets can be used in specialized firearms to activate abilities. The abilities that may be activated will be listed on the yellow tag of the firearm.

Oil can be used to activate device abilities. The abilities that may be activated will be listed on the yellow tag of the device.

Petrol can be used to activate engine abilities. The abilities that may be activated will be listed on the yellow tag of the engine.

Firearms are items that shoot bullets, be it a single shot pistol, or a belt fed air cannon. They are powered by quality bullets.

Example: A pistol that adds +1 damage for the cost of 1 quality bullet.

Devices are items that give temporary attributes and skills. They are powered by oil.

Example: A mechanical arm that provides 1 temporary might for the cost of 1 oil.

Engines are items that produce chemical distillates, oil, bullets, and other types of fuels.

Example: A chemist's distillation engine that produces 2 brimstone agitator for the cost of 1 petrol.

Components and Working Materials:

Engineers require components in order to make their items. These are intended to represent the hard to come by mechanical pieces and chemicals that they need in order to create an item.

There are **two** kinds of components that engineers use.

The first group of components are comprised of powders and metal bits that are make it easier to produce green tagged items. These components are not necessary to make quality bullets, oil, and petrol, but they increase your output of these items. They make the items cheaper and more efficient.

These are:

- Ball Bearing
- Metal Filings
- Black Powder
- Saltpeter

The second group of components are comprised of found and created pieces of machinery. They are physrepped by small gears that come in copper, silver, gold, and black with a code on them. These codes are used to simulate an engineer's knowledge and ability to research pieces of machinery in order to use them in firearms, devices, and engines. These components always take up the same amount of DP when used in the creation of an item. **COLOR DOES NOT DENOTE RARITY – THE CODE WILL DO THAT**

- Copper – 1 DP
- Silver – 2 DP
- Gold – 3 DP
- Black – 4 DP

In-game there is an index of serial numbers in the library which engineers can use to decode the serial numbers that are found on the components. They may also find other engineering information in the library. Components may also be created from schematics that can be found in-game. Schematics found in-game may also provide bonuses to an engineer, or allow for the creation of very specialized items.

Implants:

Implants are devices, firearms, and engines that have been surgically implanted into a person's body. There are a couple benefits to implanting an item an engineer has created.

- Implants are able to be fueled by other attributes as indicated on the tag in addition to its primary fuel source (quality bullets, oil, and petrol).
- Implants improve the baseline efficiency of devices, firearms, and engines. The benefits will be indicated on the items tag.

When an implant surgery is performed a marshal must be present. An implant surgery skill is necessary when this is done. NPC surgeons are the main source of these surgeries, while players may eventually gain access to the skill. Failing an implant surgery is unlikely to kill you, but might result in complications of various kinds.

Engineer Skills

There are 3 paths of fabrication in engineering; **Gunsmith**, **Tinker**, and **Machinist**. Engineers get one free skill from one of the 3 paths of fabrication at every new rank ending in a 1 starting at rank 11 (rank 11, 21 and 31). At rank 11 they may choose from the **Specialization** skills. At rank 21 from the **Duplication** skill. At rank 31 from the **Mastery** skills. The free skill may be from any path. The free skill at each rank may be from the same path of fabrication or the engineer may pick a different one at each new rank.

Apprentice: (Rank 1-10)

Create Component: (Free to purchase/Cost to use: Variable)

Engineers may make the base mechanical pieces to put together their firearms, devices, and engines. This requires a component schematic.

Assembly: (Free to purchase/Cost to use: 1 pp per design point used)

An engineer assembles a firearm, device or engine using components they specify. The total design point cost of all of the components they combine cannot exceed their *maximum design points* for that item type. No device, firearm or engine can contain more than one of the same type of component unless an engineer has a special ability which states otherwise.

Lab Research: (Free to purchase/Cost to use: variable) Engineers don't know their way around a library as well as a scholar, but their knowledge of the subject matter of machinery allows them to make limited use of scholarly libraries. Engineers can spend profession points to gain information about previously discovered components and the products they produce but do so at a higher profession point cost than scholars.

Make Bullets: (Free to purchase/Cost to use: 1 pp)

Spend 1 pp to produce 2 'quality bullets' - certain components listed above may increase your output. These are needed to activate the special abilities of certain firearms.

Produce Oil: (Free to purchase/Cost to use: 1 pp)

Spend 1 pp to produce 1 'oil' - certain components listed above may increase your output. These are needed to activate the special abilities of certain devices.

Produce Petrol: (Free to purchase/Cost to use: 1 pp)

Spend 1 pp to produce 1 petrol - certain components listed above may increase your output. These are needed to activate the special abilities of certain engines.

Journeyman: (Rank 11-20)

Specialization: Gunsmith: (5 pp * number of other "Specialization" skills you have purchased)

Specialized in Firearms +1 to your maximum design points when producing firearms

Specialization: Tinker: (5 pp * number of other "Specialization" skills you have purchased)

Specialized in Devices +1 to your maximum design points when producing devices

Specialization: Machinist: (5 pp * number of other “Specialization” skills you have purchased)

Specialized in Engines +1 to your maximum design points when producing engines

Reverse Engineering: (10 pp to purchase/Cost to use: Variable)

Allows an engineer to make a schematic from an engineering component, allowing them to produce that component with the appropriate materials thereafter. Costs the same amount to use as the number of design points of the component being analyzed.

Deconstruct: (10 pp to purchase/Cost to use: Variable)

Provides you with a list of all of the components that have gone into producing an intact engine, device, or firearm which you turn in between games. You may spend double the PP to take the item apart and receive all of the components that made it. Costs the same amount to use as the number of design points of the device, firearm, or engine being analyzed.

Master: (Rank 21-30)

Duplication: Gunsmith: (10 pp * number of other “Clever Engineering” skills you have purchased)

You can produce firearms which have a single duplicate of any one component category.

Duplication: Tinker: (10 pp * number of other “Clever Engineering” skills you have purchased)

You can produce devices which have a single duplicate of any one component category.

Duplication: Machinist: (10 pp * number of other “Clever Engineering” skills you have purchased)

You can produce engines which have a single duplicate of any one component category.

Mass Produce: Oil: (5 + 5 for each other “Mass Produce” skills you have purchased)

When you spend 1 pp to produce oil you produce 2 oil tags instead of the normal amount.

Mass Produce: Petrol: (5 + 5 for each other “Mass Produce” skills you have purchased)

When you spend 1 pp to produce petrol you produce 2 petrol tags instead of the normal amount.

Mass Produce: Bullets: (5 + 5 for each other “Mass Produce” skills you have purchased)

When you spend 1 pp to produce bullets you produce 4 bullets instead of the normal amount.

Grandmaster (Rank 31+)

Mastery: Gunsmith: (10 pp * number of other “Mastery” skills you have purchased)

+1 to your maximum design points for firearms, you may use an additional duplicate of any component category in your firearms.

Mastery: Tinker: (10 pp * number of other “Mastery” skills you have purchased)

+1 to your maximum design points for devices, you may use an additional duplicate of any component category in your devices.

Mastery: Machinist: (10 pp * number of other “Mastery” skills you have purchased)

+1 to your maximum design points for engines, you may use an additional duplicate of any component category in your engines.

Gadgeteer: (10pp to purchase/Free to use)

Whenever you personally expend 3 quality bullets, 3 oil, or 3 petrol you may use an additional quality bullet, oil or petrol without expending a tag.

Genius (Rank 35+):

Opus:

You may spend build and XP to create unique items which cannot otherwise be created by the engineer system. Doing so requires staff approval for the particular item being produced, staff will also set the price in both XP and build. Expect to spend 5-10 build per “Opus” created, which cannot be done more than once per season.

An opus may be a one of a kind item, it may also be a new discovery in the engineer trade which can be taught to others, or the combining of two things that were thought to be impossible.

In-Game Abilities

At the start of each game players receive in game Engineer PP equal to their rank in Engineer. These profession points do NOT refresh during resets, and may be spent throughout the course of the weekend.

Knowledge: Physics

Minimum Rank: 1

Cost: 0 to read tags, variable based on cost listed on tags

You gain the "Knowledge: Physics" skill exactly as listed in the rulebook.

Identify Components

Minimum Rank: 1

Cost: Varies based on component

Engineers can expend profession points to identify the properties of components by consulting the Mechanical Serial Index in the library. While some parts may be unknown, the index will provide information based on its code that will give an engineer an idea of what a piece of machinery does.

Fast Fabricate Bullets

Minimum Rank: 1

Cost: 1pp, 2 black powder

By spending 1 minute and laying out some sort of bullet making supplies on a flat surface in front of you, you may create a 'quality bullet' and load it into a specific weapon that uses quality bullets.

This bullet is expended when the weapon is fired.

Fast Fabricate Oil

Minimum Rank: 1

Cost: 2pp

If you are at a heat source and have enough space to lay out basic engineering tools for 1 minute you may BESTOW 1 RENEWABLE OIL to a single device or a person carrying a device. If you have a device with renewable oil in it you may use this skill to transfer that oil to a different device. This takes 1 minute as well.

Fast Fabricate Petrol

Minimum Rank: 1

Cost: 2pp

If you are at a heat source and have enough space to lay out basic engineering tools for 1 minute you may BESTOW 1 RENEWABLE PETROL to a single engine or a person carrying an engine. If you have a device with renewable petrol in it you may use this skill to transfer that petrol to a different device. This takes 1 minute as well.

Repair Mechanical Armor

Minimum Rank: 11

Cost: 1pp

Allows you to repair armor which is bestowed because of an engineered item. Takes 1 minute and 1 pp per point repaired.

Clean Gun

Minimum Rank: 21

Cost: 1pp

Takes 1 minute, adds +1 damage, crushing, or piercing to a gun's next attack.