

The Engineer: A Class Overview

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Engineers are the builders and artificers of the Forgotten Realms. They are the ones who design and test the innovations that make everyday life possible for average people. There have always been engineers in Faerûn. They adventure primarily as a way to explore the world, find new inspiration, and test their innovations under the harsh conditions common to life on the road. They are a hardy, courageous, and clever lot, bent on self-discovery and self-sufficiency.

Engineers are generally distrustful of both magic and religion, especially at the beginnings of their careers. They prefer to solve problems themselves, through their own intelligence and innovation. However, mistrusting magic is not the same thing as misunderstanding it. Engineers are highly intelligent. Many can read magical script and use simple magical devices (like wands), and after gaining enough experience, most engineers will begin to experiment with magical innovation in order to create truly powerful new ideas and equipment.

Engineering is fighting class. Engineers typically act as Strikers or Controllers in combat. They are appropriate for players who want to play a non-thief character with a lot of skills and/or a lot of cool equipment or for parties adventuring in low- or no-magic settings. Engineers generally start out as fighters or thieves, often after having been apprenticed to a blacksmith, mage, or tinkerer in their youth. They will typically travel first and then begin to innovate new weapons and ideas after gaining some initial experience in their base class. This basic experience is a necessity of innovation. However, engineers rarely share their latest ideas or innovations with others, and they generally will not create items for others while they are adventuring. Engineers are usually either dwarves or gnomes; they may occasionally be human or goblinoid. It is exceedingly rare to find elven, orcish, or planetouched engineers.

An engineer's Prime Requisite is Intelligence. Strength and Dexterity are also important for engineers, both to aid in combat and because engineers tend to carry a lot of heavy equipment with them. For this reason, engineers will often employ pack animals or use wagons whenever possible.

Engineers can do many of the same things as thieves, but they do them in different ways. They succeed through innovation and intelligence rather than through stealth, guile, and physical prowess. Common thief skill checks (i.e. open lock, disable device, etc.) are performed vs. an engineer's intelligence modifier rather than vs. his dexterity modifier. Instead of disarming traps, engineers generally prefer to set traps off under controlled circumstances so that no one is injured. Rather than using lock picks, engineers typically cut bolts or hasps or remove doors from hinges. Like wizards, engineers often adopt sigils as crafting marks.

Engineers automatically gain the Martial Weapons proficiency. They can wear any armor and can use shields. But they generally prefer to keep it light since they still suffer Armor Check Penalties to their Skill Checks. Chain shirts or other

lightweight chainmail designs and small shields or bucklers are the norm for most engineers.

Engineers have d8 hit dice. Like Rangers, they receive 8 skill points per level. They have a Medium BAB. Their high saving throw is Will, and low is Reflex.

Class Skills:

- Appraise
- Concentration
- Craft Weapons
- Craft Armor
- Craft Mundane Items
- Craft Alchemy
- Craft Trap
- Decipher Script
- Disable Device
- Handle Animal
- Technical Drawing / Forgery
- Knowledge (arcana)
- Knowledge (architecture and engineering)
- Knowledge (dungeoneering)
- Knowledge (geography)
- Open Lock
- Profession
- Ride
- Search
- Spellcraft
- Spot
- Survival
- Swim
- Use Magic
- Use Rope

Innovations:

An engineer succeeds by making innovations, primarily through non-magical means. The ability to make these innovations is taken as a feat. Once this feat is taken, the engineer will make one innovation per level taken in engineer, though existing designs can once be improved every other level.

The strength of an engineer's innovations is often tied to either the engineer's level or to his intelligence score or both. At lower levels, innovations are minor things, but they become more profound as the engineer gains experience and insight into his craft. Once an Engineer reaches prestige level, whether solely as an engineer or in combination with levels taken of another class, the engineer will begin to experiment with magical infusion in his innovations. This will make his innovations much more powerful, but it may also lead to further restrictions on the things he creates. At epic levels, engineers will create works of wonder such as inter-planar gates, massive clockwork beasts, and flying fortresses that can last for centuries.

When creating an innovation, players should describe in detail how the innovation works. Some innovations may have inherent restrictions. For example, undead cannot be poisoned or put to sleep, and they are immune to many forms of additional damage. All innovations are subject to DM approval.

To innovate an item, an engineer must have a Craft Item skill equal to at least 2 levels more than is required to fabricate that item. For example, an engineer must be able to easily craft a long sword before he can innovate a long sword's design.

He must be able to easily craft an adamantine long sword before he can pass his innovation on to long swords made from adamantine.

There are four basic schools of engineering:

- *Civil*: Concerned with building and architecture. Civil Engineers rarely go out as adventurers.
- *Mechanical*: Concerned with the creation of new tools and the improvement of weapons. Mechanical engineers are commonly called tinkerers or weapon smiths.
- *Alchemical*: Create alchemical concoctions such as smoke powder, sleeping powder, blasting powder, Greek fire, etc. These concoctions often mimic low-level spell effects. Alchemical engineers may also be adept as poison makers.
- *Combat*: Concerned with emplacing or reducing obstacles, traps, and fortifications. Can help shape a battlefield to the best advantage of his party.

Engineering Feats:

Minor Civil Engineering Innovation: Must have Knowledge (architecture and engineering) equal to 10 or greater. Allows minor improvement of a fixed fortification, generally providing an increase in AC of 1 + 1 per 2 levels of Engineer while fighting from behind that fortification.

Minor Weapons Innovation: Must have Craft Weapons equal to 10 or greater. Minor Weapons Innovation (MWI) typically increases a weapon's damage output, improves Attack Bonus scores, or makes a weapon more useful for defense. Additional innovations can make a weapon even more potent. However, MWI cannot be used on a magic weapon without destroying the weapon's enchantment.

Minor Weapons Innovations ¹						
Original Damage	1 st Increase	2 nd Increase	3 rd Increase	4 th Increase	5 th Increase	6 th Increase
1d4	1d6	1d8	2d6	3d6	4d6	6d6
1d6	1d8	2d6	3d6	4d6	6d6	8d6
2d4	2d6	3d6	4d6	6d6	8d6	12d6
1d8	2d6	3d6	4d6	6d6	8d6	12d6
1d10	2d8	3d8	4d8	6d8	8d8	12d8
1d12	3d6	4d6	6d6	8d6	10d6	16d6
1d20	4d6	6d6	8d6	12d6	16d6	24d6

¹ Table 1-1 from the *Arms and Equipment Guide*.

Minor Mundane Items Innovation: Like MWI, but focused on regular, day-to-day items. Examples include ropes that are easy to climb, cloaks with more effective camouflage patterns, fire-proof gloves, etc.

Minor Armor Innovation: Like MWI, but focused on improving armor. Typically increases an armor's AC bonus by +1 per 2 levels of engineer (rounded up).

Minor Alchemical Innovation: Must have Craft Alchemy equal to 10 or greater. Engineer is able to create new alchemical concoctions. Effects generally last for one round per two levels of Engineer (rounded up). Saves vs. these effects are performed vs. a DC equal to the Engineer's Craft Alchemy Skill + intelligence modifier.

Minor Obstacle Innovation: Must have Knowledge (architecture and engineering) equal to 4 or greater. Knowledge (geography) equal to 4 or greater. Knowledge (dungeoneering) equal to 2 or greater. Able to create minor obstacles that increase party AC and decrease enemy movement rates. Examples include spools of razor wire, tanglefoot bags, punji sticks, etc. These typically take at least one full round to emplace and require Concentration checks during combat. Enemies must Save vs. a DC equal to the Engineer's intelligence or have movement rate halved by the effects of the obstacle. Further innovations might speed obstacle deployment or increase the party's AC enhancement.

Minor Breaching Innovation: Must have Craft Mundane Items equal to 6 or greater. Must have Knowledge (architecture and engineering) equal to 4 or greater. Innovations improve ability to open locks, disable devices, breach enemy fortifications, etc. Use of these innovations will have the effect of adding skill points equal to Intelligence modifier per two levels of engineer.

Minor Clockwork: Must have Knowledge (architecture and engineering) equal to 12 or greater. Must have Craft Mundane Items equal to 10 or greater. Must have Minor Mundane Items Innovation. Allows engineer to build a small clockwork device capable of performing a simple action such as attacking an enemy, setting off a trap, breaching an obstacle, emplacing an obstacle, etc. Where appropriate, the clockwork will have a BAB equal to the Engineer's level and an AC equal to the engineer's intelligence score. The clockwork will last for 1 round per level of engineer.

Innovate Magic Items: Allows engineer to apply past innovations to a magic item without destroying the item's enchantment. This is applicable only to +2 weapons and below without Prestige Innovation.

Prestige Innovation: Allows the use of magic and past innovations to greatly enhance items. In general, a prestige innovation is equal to two minor innovations. However, prestige innovations may make an item larger, heavier, slower, etc. Once a character begins making prestige innovations, he will no longer make minor innovations. Does not require Innovate Magic Items.

Epic Innovation: Discuss with DM. Should build on earlier engineering work.

Further Innovation:

Innovations do not automatically improve as an engineer advances in level. Instead, improvement requires further innovation. For example, a weapon smith who innovates a serrated edge for his favorite long sword will increase that weapon's damage from 1d8 to 2d6 with his first innovation. However, this will not improve again unless the engineer makes further innovations to the design. Additionally, a character can only improve a given design as many times as his intelligence modifier allows. Using the previous example, if the weapon smith has an intelligence score of 18, then his modifier is +3, meaning that he can reinvent the serration technique on his long sword three times. If he focuses three innovations solely on that one sword, he can go from a base damage of 1d8 prior to innovation to an improved damage of 4d6 after three innovations. However, after that he can make no further innovations of that technique. The sword's damage will remain 4d6 unless he can raise his intelligence score enough to allow further innovation. He can do other things to the sword, such as innovating a new handguard that will allow him to improve his AC when he uses the sword, and he will be able to apply the existing innovation technique to minor magic weapons provided he has the appropriate feat, but he will not be able to raise the sword's damage output until he raises his intelligence modifier. This is true even for prestige innovations. For example, the weapon smith could conceivably raise his sword's damage output to 6d6 if his first two innovations are minor innovations and his third innovation is a prestige innovation, but again, that will be all until he raises his intelligence enough to allow further innovation.

The sole exception to this is Alchemical innovation, which improves as the character's level and Craft Alchemy score improve. An alchemical engineer who innovates a new formula for Sleeping Powder will have the potency of that concoction improve automatically as his level and Craft Alchemy skill improve. Further alchemical innovations will then allow him to develop wholly new concoctions with totally different effects.

Engineers can innovate once per level, but they can only innovate a given design once every two levels. Other innovations must be of a different type. For example, imagine a weapon smith who gains the Minor Weapons Innovation feat at fourth level (3 fighter / 1 engineer). He can innovate his blade's design instantly, making his long sword's damage 2d6. When he then gains another level (3 fighter / 2 engineer), he can make another innovation using MWI, but it cannot be an improvement on his existing blade design. It must be a different type of innovation. He cannot improve his initial blade design until he gains still another level of engineer (3 fighter / 3 engineer).

Note: All innovations must be pre-made and carried in a character's pack. Items cannot be created in the midst of combat. Existing innovations can be replicated whenever a party rests provided the character has all necessary tools and equipment with him.