Types of Engineers

## **1. Aerospace Engineering**

Aerospace engineers work to develop things that fly airplanes, spacecraft, missiles, etc. They do this by incorporating physics principles such as lift, drag, and thrust. The products they develop help protect us from threatening nations and help us get where we need to go, whether it's a vacation to Greece or a space flight to Mars.

## 2. Agricultural and Food Engineering

These engineers are all about food, not unlike themselves. Except that I eat it. Food engineers help design systems for making, storing and distributing it. They are responsible for ensuring that we can consistently produce enough food to feed our growing population and that food is stored in a safe and efficient manner. Without them, we would have to deal with food shortages on a regular basis.

## 3. Architectural Engineering

Architectural engineers are tasked with designing buildings, preferably those that will not collapse. To achieve this, they study the strength of different building materials, how to make buildings withstand earthquakes and high winds, how different types of soil affect the stability of a building, and so on. Without architectural engineers, we would likely still be building our homes and community buildings out of mud and sticks. We certainly wouldn't have the big skyscrapers that we have today.

## 4. Automotive Engineering

Automotive engineers design cars, trucks, SUVs, and vans that you and I drive on a daily basis. They use their knowledge of things like aerodynamics, material density, and even software and electronics applications to design everything from the physical shapes of cars to their complex electrical systems. If we didn't have automotive engineers, getting around would not only be much slower, but also much more difficult.

## 5. Biomedical Engineering

If you've ever been to a hospital, you've seen this group work. Biomedical engineers are those who design tools and equipment used in the healthcare industry. Everything from prostheses to CPAP machines has been developed by biomedical engineers. They build machines and other devices that help save our lives, deliver our children, and sometimes just live a little more comfortably.

## 6. Biotechnology Engineering

Biotechnology engineers use principles from biochemistry to develop things like medicine, cell and tissue cultures used in research, and even art! Seriously, do a Google search for "bio-art" and you might thank me later. Like biomedical engineers, biotechnology engineers study ways to keep us alive and healthy. Without both biomedical engineers and biotechnology engineers, we would still only have a lifespan of 35 years.

## 7. Chemical Engineering

Chemical engineering is all about designing new chemicals for all kinds of uses. They develop the processes used to make these things from plastics and other polymers, fuels, medicines and many other types of chemical compounds, as well as raw materials. Life would certainly be very different without chemical engineers.

## 8. Civil Engineering

Engineers, neglected stepchildren of civil engineers design some of the most important systems. They design systems to supply people with clean water as well as systems to clean it back up after use. They also design things like roads, bridges, dams, etc. Without civil engineers, we would still be going through the forest to a nearby river to get water.

## 9. Computer Engineering



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Computer engineers don't only design home computers. They develop mobile devices, embedded computer systems for industrial processing, computer peripherals such as keyboards and printers, machine learning and artificial intelligence programs, and more. For better or worse, we would never have reached the digital age without computer engineers.

## 10. Electrical and Instrumentation Engineering

Electrical and instrumentation engineers develop machines and equipment that are used in manufacturing, vehicles, research, etc. Most other engineers on this list rely on instrumentation in some way that is designed by an instrumentation engineer. They develop equipment that helps pilots fly and allows doctors and nurses to monitor your vital signs.