#### TYPES OF ENGINEERS



## 1. Aerospace Engineering

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

#### 2. Agriculture & Food Engineering

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

# 3. Architectural Engineering

Architectural engineers are tasked with designing buildings, preferably ones that won't fall down. To achieve this, they study things like the strengths of various building materials, how to make buildings withstand earthquakes and high winds, how different soil types affect the stability of a building, and so on. Without architectural engineers, we would presumably still be building our homes and community buildings out of mud and sticks. We certainly wouldn't have the large skyscrapers that we have today.

### 4. Automotive Engineering

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

# 5. Biomedical Engineering

If you've ever been to a hospital, you've seen the work of this group. Biomedical engineers are the ones who design the devices and instrumentation used in the healthcare industry. Everything from prosthetic limbs to CPAP machines have been developed by biomedical engineers. They build the machines and other devices that help save our lives, deliver our babies, 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 "bioart" and you can 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 likely still have lifespans of only 35 years.

#### 7. Chemical Engineering

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

### 8. Civil Engineering

The neglected step-children of engineers, 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 walking through the woods to a nearby river to get water.



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