

Types of engineers

- **Aerospace engineers** design space vehicles or airplanes.
- **Biomedical engineers** design and work with medical equipment.
- **Chemical engineers** use chemicals to make products like drugs and medicines or fertilizers for crops.
- **Civil engineers** work on roads, bridges, buildings and other public structures.
- **Computer engineers** design and build computers and the parts that computers are made of.
- **Electrical engineers** work with **electricity** and design electrical equipment, from small things like radios and computers to large things like the wires that carry electricity across the country.
- **Electronic engineers** work with **electronics**, which are used to build computer parts and electrical equipment.
- **Environmental engineers** design and implement solutions to remediate and restore the environment.
- **Manufacturing engineers** design and improve the machines and assembly lines that make things. They work with robots, hydraulics and air-operated devices to help companies work faster and better with fewer mistakes.
- **Mechanical engineers** design machines or things that move, like cars and trains. A mechanical engineer also might help design electricity generating stations, oil refineries, and factories.
- **Mechatronics engineers** build robots and things that are like robots, but not exactly. They do things that are robotic-like.
- **Nanotechnology engineers** study very small things, like strings of atoms and how they are put together.
- **Nuclear engineers** design and build nuclear plants. They also study the characteristic behaviors of certain radioactive or unstable elements.
- **Structural engineers** are dealing with **design** and **analysis** of **buildings** and large non-building **structures** to withstand both the **gravity** and **wind** loads as well as **natural disasters**.
- **Software engineers** design and write programs for computers.
- **Systems engineers** look at how complicated things work and try to make them faster and smarter. They look at the big picture.

Many engineering projects engineers do are large and very complicated. Often different kinds of engineers work together and help each other. As an example, computer engineers need help from electrical engineers to build a computer. The computer needs programs written by software engineers. The computer could be used by aerospace engineers to control an airplane. An airplane is a big mechanical system with many parts, so a mechanical engineer and a systems engineer are also needed.