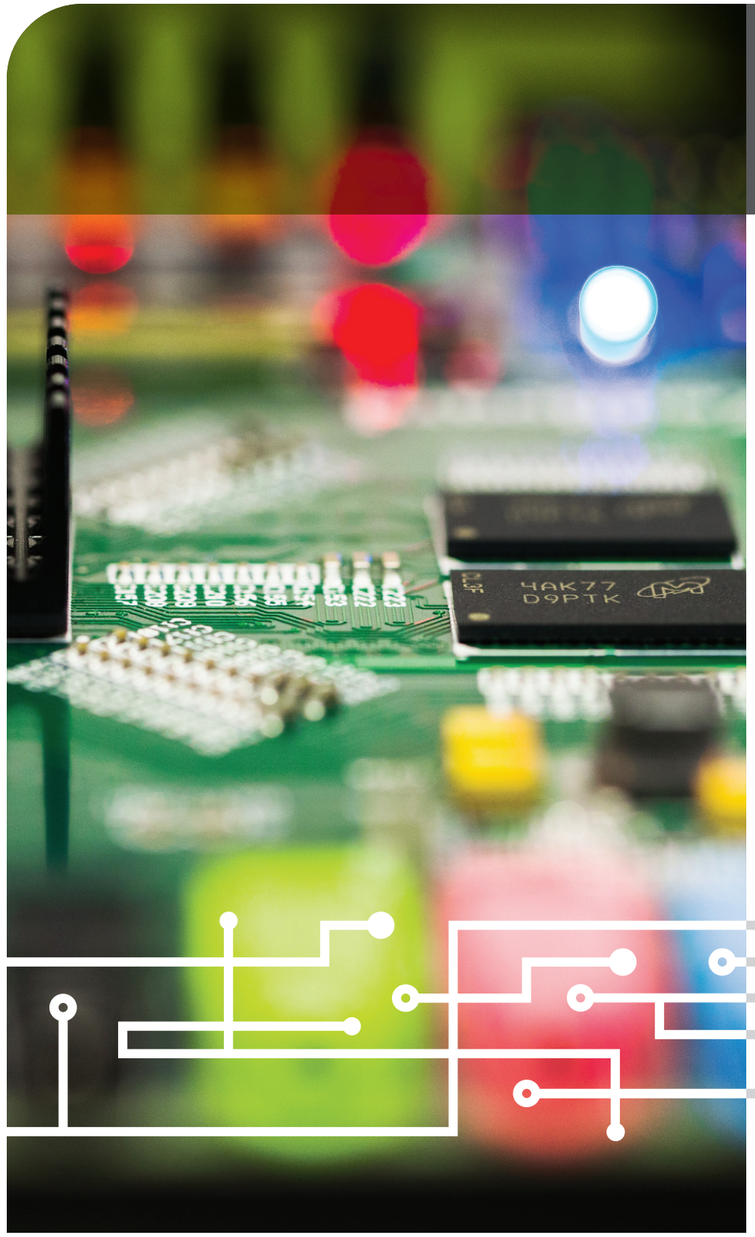


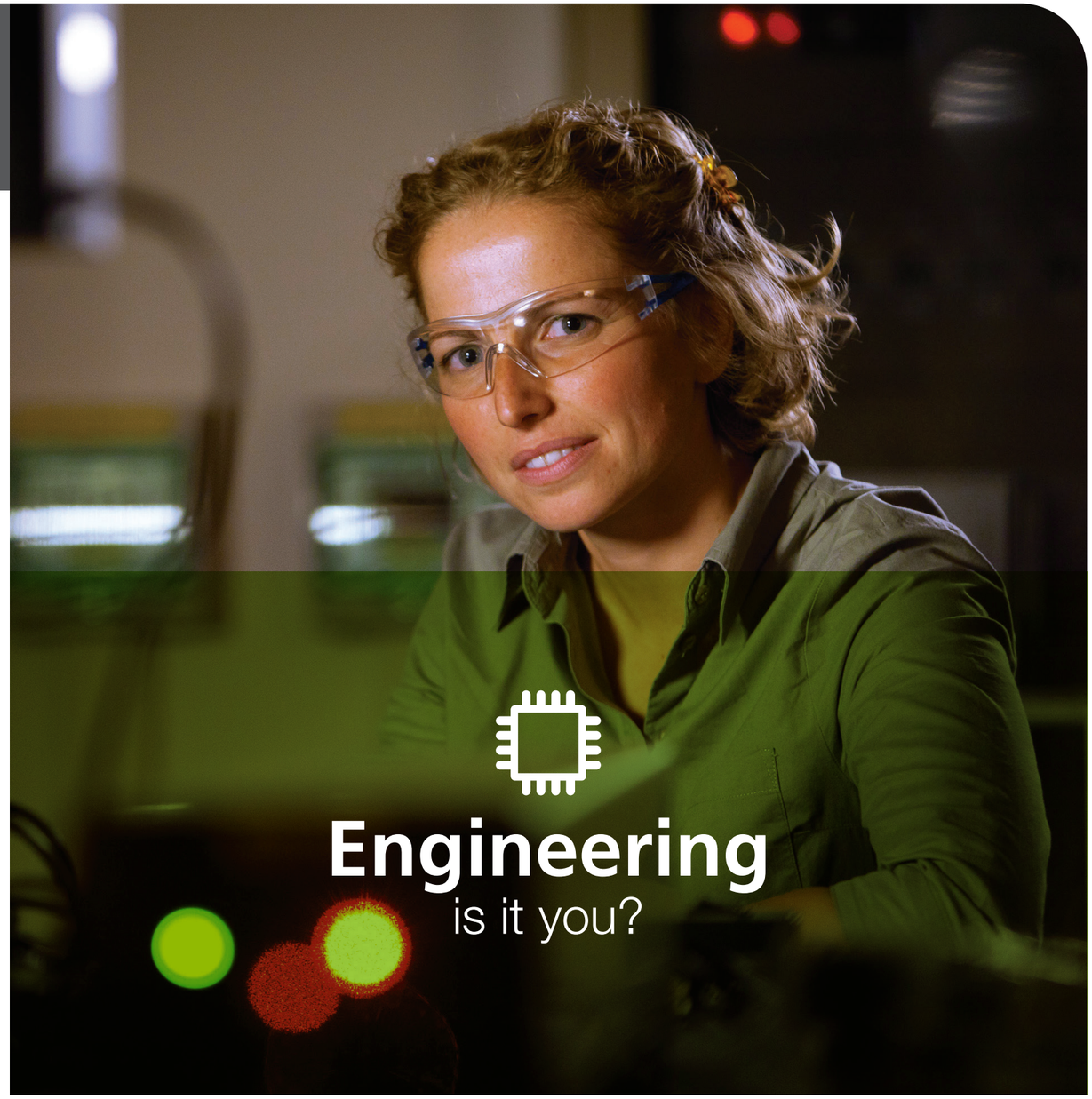
Web Resources

Micron Student website
micron.com/students

Discover Engineering
www.discoverengineering.org

Try Engineering
www.tryengineering.org

Engineer Girl!
www.engineergirl.org



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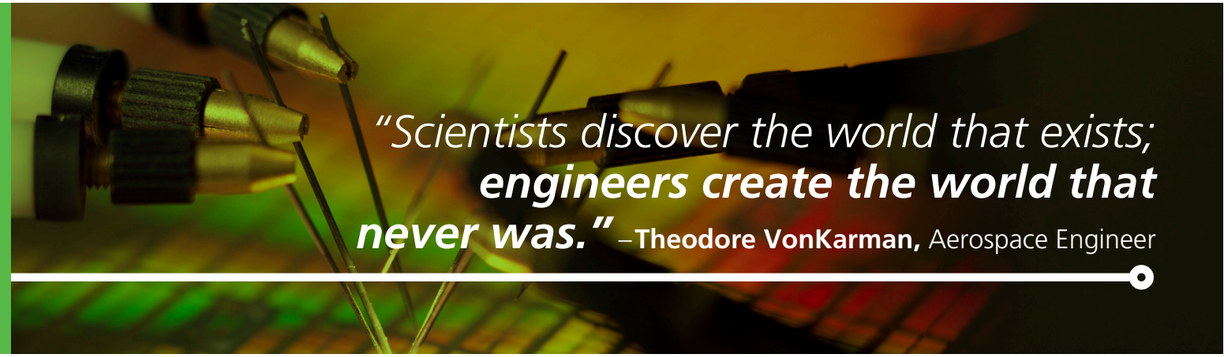
Careers in engineering

This brochure describes some of the most common engineering professions.



Cool things **engineers** have developed

- Computers and Tablets
- Mobile devices
- Space travel vehicles
- Snowboards
- GPS
- Gore-Tex®
- Fuel injection systems
- Plastic knee and hip joints
- Velcro®
- Zip-lock® bags
- Roller coasters
- Artificial organs
- Computer animation
- Skin care products
- Gaming systems
- DVD's
- MP3 players

Computer
Computer engineers use software and electrical engineering principles to solve system and process problems. Examples: hand-held communication and imaging devices for automotive safety, security, and medical applications.

Chemical
Chemical engineers are sometimes seen as mad scientists, sitting in their laboratories with beakers and Bunsen burners mixing and boiling chemicals. In actuality, they use chemical principles to develop new products and new properties for existing products that make our lives better. Examples: Gore-tex®, paint, plastic, medicines, clothes.

Electrical
Electrical engineers work with electricity and determine how to use its properties to help solve problems. It can be as everday as making your mom's blender work better or as cool as creating a new memory chip that makes your computer games more realistic. Examples: power plants, satellites, cell phones, GPS systems.

Environmental
Environmental engineers work with Mother Nature to correct problems with and protect the environment. Examples: reducing acid rain, water pollution, air pollution, the hole in the ozone layer.

Manufacturing
Manufacturing engineers help companies make things faster, better, and less expensively. They design tools or refine manufacturing techniques to increase the product quality and reduce the cost of making things. Examples: decreasing the size of integrated circuits 1000 fold and incorporating robots in manufacturing processes.

Mechanical
Mechanical engineers are experts in how to make something else do the work… They are called the "jack-of-all-trades" among engineering professions, using the properties of motion, energy and force to create mechanical systems that air condition our buildings, generate electricity, turn the wheels of your car and much more. Mechanical engineers also design automation and robotics, manufacturing systems and processes with special machinery. Examples: Turbines for power generation, rocket design, automated systems.

Material Science Engineers
Materials engineers use basic science, chemistry, physics, and electronics to study substances and enable technological revolutions. They determine why materials behave the way they do, how they are made, and how new ones can be developed to meet the demands for modern technology and cutting edge applications. Examples: carbon fiber bike frames, fuel cell technology for cars.

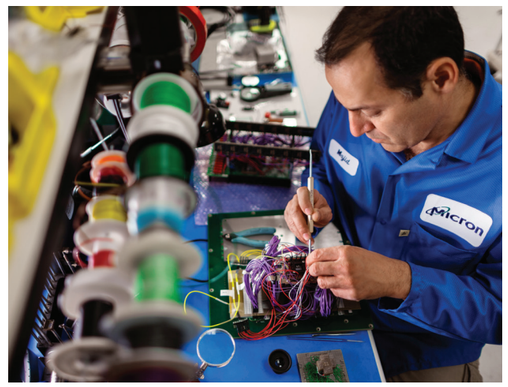
Software
Software engineers are like animal trainers. They "teach" computers to do what they want them to do by writing the code that the machines understand. This paragraph was written on a computer using a word processing program written by a software engineer. Software engineers also create programs in areas such as automation, general business, animation (e.g. Star Wars®, Lord of the Rings®), and for devices that are part of cell phones, gaming systems (e.g. Nintendo Wii®, Playstation 3®) and military jet fighters.

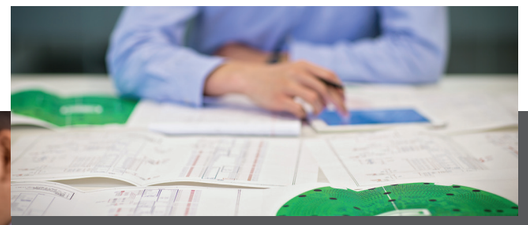
What does an **engineer** do?

This brochure describes some of the most common engineering professions.

To learn more about a future in engineering and other high-tech careers, visit our web site at: **micron.com/students**

You'll find interviews with real-life engineers, and tips that can assist you in choosing a technical career.





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