



Electrical Engineering

Harnessing the power of electricity! Electrical engineers contribute to a wide variety of projects. With an understanding of electricity, electronics and electromagnetism, they design systems which process information and transmit energy. Electrical engineers also work with engineers from other disciplines to design, build and test products for virtually every industry.

Where do Electrical Engineers Work?

Electrical engineers work in a variety of organizations, including:

- Renewable Energy Firms
- Power Generation and Distribution
- Electronics Manufacturers
- Construction Building Systems Companies
- Automotive and Aerospace Industries

Explore Our Electrical Curriculum

Grades 3-5:

Potato Power
Light Your Way: Design-Build a Series Circuit Flashlight
Build a Toy Workshop

Grades 6-8:

Yogurt Cup Speakers
Saltwater Circuit
LilyTiny Plush Monsters Are Alive!

Grades 9-12:

Designing a Thermostat
SIK Keyboard Instrument
Building a Piezoelectric Generator

Electrical engineering spans many disciplines, but is generally broken into a few subfields:

energy systems, power engineering, microelectronics, systems and control, telecommunications and signal processing, digital and analog electronics.

What do Electrical Engineers Study?

Electrical engineers focus on coursework that allow them to understand the systems that power our society. In addition to mastering a background in mathematics and physics, electrical engineers specialize in a range of disciplines such as communications, circuits, electromagnetics, digital and analog electronics, telecommunication, digital signal processing, and controls. Electrical engineers may also participate in elective courses that broaden their training through hands-on projects using electrical devices and machines.