# MICROELECTRONICS EDUCATION AND RESEARCH CENTER





## Circuit Explorers (Best for Elementary Students)

Build • Test • Discover

Students design and analyze simple circuits using Snap Circuit Beginner kits. They'll explore the concepts of circuits and conductivity, understand how engineers create everyday tech, and develop teamwork and problem-solving skills through hands-on fun.

# Chip Challenge (Grades 4-Middle School)

What's Inside Your Devices?

In this activity, students learn how semiconductors power modern technology. Using LittleBits kits, they'll build circuits and design self-driving vehicles while learning key concepts like inputs, outputs, power, and connectivity.

🎎 Younger students can participate with adult support.

# Sphero BOLT Robotics (Grades 4–12 | 90 minutes recommended)

Code • Create • Challenge

Explore how semiconductors are made and how they power robotics! Students program Sphero BOLT robots using draw, block, or text-based coding and put their skills to the test in an exciting hands-on challenge.

Includes coding fundamentals and "robot brain" exploration

### Spark of Semiconductors (Best for Middle-High School)

Engineering the Future

Students investigate the power of semiconductors through handson experiments using Arduinos, breadboards, LEDs, and more. They'll discover how semiconductors impact healthcare, farming, and space exploration—and explore exciting STEM careers along the way.





**INTERESTED IN A VISIT?** 

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