

ROBOTICS 1

Course Description

The first in a sequence of courses that prepares individuals with a lab-based hands-on curriculum combining electrical, mechanical, and engineering principles . Students will learn to design, build, program, and control robotic devices. A rigorous study and application of electrical concepts will include: sources of energy, electrical safety, use an identification of basic electronic components , sensors and actuators. Engineering concepts will include: mechanical design, prototype development, design testing, programming, and proper engineering documentation.

Strands

1. Students will follow safety practices.
2. Students will identify the development and application of robotics and automated systems and their impact on society.
3. Students will classify and identify the basic components of a robot.
4. Students will understand the fundamentals of electricity as applied to robotics.
5. Students will create and interpret fundamental programming of robots and automated systems.

