

ROBOTICS II 5 CREDITS 10-12

Students enrolled in the second year of the Robotics sequence continue to develop their knowledge of design, fabrication, electronics, and programming. They use engineering modeling software and digital fabrication tools to design and develop prototypes of robotics components. They take advantage of electronics and programming techniques to allow their robots to perceive their environment, communicate, and make decisions. As the year progresses, students engage in a series of mechatronics design challenges.

This course is designed for our aspiring engineers. Prerequisite: Robotics 1

Topics covered:

Digital fabrication (Chassis design, advanced modeling, 3D printing, laser cutting, CNC)

Electronics (Bluetooth, ultrasonics, IR, game controllers)

Programming (C++, Python, Arduino, simulation)