

Introduction to Robotics Parent Guide

This course exposes students to some of the major concepts and technologies that they will encounter as they investigate engineering, robotic, and high-tech careers. Students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenging situations. VEX EDR and multiple coding styles and languages will be utilized in this course. Texas Essential Knowledge and Skills for Engineering Science (Introduction to Robotics) [§130.414. Engineering Science](#)

1st 6 Weeks:

Introduction to Robotics
Rotation and Torque
Center of Gravity & Lifting Mechanisms

4th 6 Weeks:

Physics Concepts Demonstration
Design Specification
Engineering Notebooks & CAD

2nd 6 Weeks:

Engineering Notebooks & Schematics
Functional Specifications
Intro to Programming
Circuit Parts, Kit Builds and Basic Soldering

5th 6 Weeks:

Engineering Notebooks & CAD
Circuits, Soldering, & VEX build
Material Analysis
Sensors & Autonomy

3rd 6 Weeks:

Sensors - Vision
Speed, Velocity, Acceleration & Vectors

6th 6 Weeks:

Drivetrains & Gearboxes
Robot Challenges
Engineering Notebook and Inventories

Questions? Please contact your course science teacher.