A Unit 02: Intro to Robotics

Content Area: **Science**
Course(s): **Robotics A**
Time Period: **Marking Period 1**
Length: **3**
Status: **Published**

Standards

SCI.9-12.HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
SCI.9-12.HS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
SCI.9-12.HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

Enduring Understandings

- The development of multiple subsystems are required for successful robotic design
- The design process can be applied independently to each subsystem in conjunction with the design of a robot as a whole.
- A sound structural design is important when establishing effective subsystems.

Essential Questions

1. How do robots benefit society?
2. How do different subsystems work together?
3. How does the installation of sensors improve the functioning of the robot?

Resources

- Unit Guide
- Paper
- Pencils
- Rulers
- Internet Access
- Dictionaries
- VEX Robotics Kit
- Computers with Autodesk Inventor

- Storage containers
- Online Resources