

Session 1: Introduction to VEX and Programming

- Overview of the VEX Robotics competition, including its rules, format, and what you will learn.
- VEX is a global robotics competition for students, in which teams design build and program robots to compete against each other.
- Matches are played on a square field, with teams competing in alliances of two and trying to earn points against opponents.
- Present key components and hardware such as the VEX V5 Brain. I will present the V5 hardware in person and demo it.
- We can provide short video of past VEX competitions in action.

Discussion

- What do you think the some of the features of the VEX V5 brain are? What kind of things can it allow our robot to do?

Demo

- We will introduce the main hardware, the "VEX V5 Brain", and give physical demo of its use and features. We will show where to find the stored programs you upload, for example.

- Programming libraries are pre-written code modules that can be used in your programs.
- They provide functionality and tools that you can use without having to write everything from scratch.
- Libraries save time and reduce errors in software development.

Slide 2: What is PROS, and Why Do We Use It?

- PROS is a popular open source programming library for VEX.
- It is specifically designed for our V5 hardware, and so it simplifies the process of programming your robot.
- PROS is widely used and supported, and has good integration with VS Code.
- We explore PROS in more detail in the coming sessions.

Slide 3: Getting Started with PROS

- To get started, we will install the PROS plugin in VS Code and set up our development environment.