



Remote Professional Development

FIRST® Tech Challenge



Course Description

The *FIRST* Tech Challenge professional development course gives attendees a strong understanding of how to implement the *FIRST* Tech Challenge program and how to achieve STEM learning objectives. In *FIRST* Tech Challenge, students learn to think like engineers. Teams design, build, and program robots to compete in an alliance format against other teams with a spirit of friendly competition. Many call it “the hardest fun you’ll ever have.” Participants in this course will walk in the footsteps of the students as they engage in these hands-on experiences and practice engineering principles such as keeping an engineering notebook. The course is customized to meet the unique needs of participants in a remote setting while modeling how to inspire their students to become confident and creative innovators and collaborators.

Course Requirements

- Computer with Internet Access (Recommend second screen or device to allow programming and video communication at the same time)
- *1 FTC Robot kit - TETRIX FTC Competition Set or any REV Robotics Kit
- *1 Control and Communication Set
- *1 Electronics Module and Sensor Set
- A second device to use in connection to your REV control system

***Class Pack or Individual Team Registration and robot products can be purchased through the [FIRST Dashboard](#).**

Course Objectives

By the end of this course, you will:

- Participate in the FIRST experience from a student’s point of view
- Explore the essential components of the FIRST Tech Challenge program
- Feel comfortable using FIRST Tech Challenge robotics kits such as Pitsco and Rev
- Understand how to code using Blockly programming software
- Learn how to facilitate hands-on activities for the classroom or after-school programs
- Collaborate with other participants and share best practices
- Be able to foster computational thinking, collaboration, and problem-solving skills
- Have experience with Project-Based Learning, the Engineering Design Process, and 21st Century Skills
- Implement Diversity and Inclusion practices
- Utilize, model, and reinforce the FIRST Core Values

FIRST is a global robotics community that prepares young people for the future.

www.firstinspires.org