Class Session 1: 8:00 am - 8:30 am

Class Session 2: 8:35 am - 9:05 am

A201

## Improve Your 3D Printed Robot - Part 1

Improve Your 3D Printed Robot - Part 2

Step up from machine defaults to improve your 3D printed robot parts by understanding how CAD choices, slicer defaults and printing orientations can affect your parts. Know when 3D printing makes sense and when machined, cast, molded or other off the shelf parts are a better choice.

A203

#### Creative Design Roundtable

A roundtable dedicated to sharing creative ideas and solutions to problems with others from the FIRST community. We will talk about things people have done in the past to make a unique and interesting robot to push the limits of thinking.

A204

### Electronic Glow-Up

This presentation lays out achievable ways to make designing an electrical system a process geared towards a neat electrical system, and happier team members.

A205

# **Pre Season Programming preparation**

In our roundtable, we will be demonstrating how our team prepared for an frc season. We will show both younger and advanced students the importance of programming preparation to better both their frc and FTC teams. With the skills they learn in GitHub and researching, they will become better contributers to their teams.

A206

# **Building Bridges with FIRST: Inspiring Impact**

Interactive session to discuss how to bring inspiring impact to your community. Presentation will include best practices for the FIRST Impact Award submission.

A208

### **Entrepreneurship** in the FIRST Robotics Competition

This presentation shines a light on the role of entrepreneurship in the FIRST Robotics Competition and why it's arguably the most important part of the program. Think of it like being on Shark Tank-students aren't just building robots; they're pitching ideas, teaming up to solve problems, and figuring out how to get their projects funded.

A209

#### How to be an inclusive team for the LGBTQ+ Community

Explanation of what LGBTQ+ of FIRST is and what it stands for, what partnering with the organization entails practically, and finally some missions of the organization and why it's important - Note: Please do not overlap with the Wrench Growling presentation, preferably in the first session.

A210

### **Driver's Training**

Learn how to structure, and use drive practice more efficiently to improve driver's speed, accuracy, and smoothness in whatever space you have access to. Plus examples of specific practices to use.

# Strategic Design

This presentation will cover the basics of selecting a robot performance goal for the season and how to achieve that goal. Topics will include; best practices designing a robot, tips to improve your team's competitiveness, developing a build season schedule, and goal setting.

# Why is My Wrench Growling

The most common hurdle for beginning mechanics in any field is developing a sense of creative problem solving that allows one to fix unconventional or non-straightforward mechanical issues such as the ones that commonly arise in robotics.

How to Automate Your Robot - Driver Aids

This session will introduce easy programming techniques and examples that any team can use to improve their robot's performance.

### Intro to non-STEM and FIRST

In this session, I will go over the basics of FIRST and the dynamics of how a FIRST team will work. This will be primarily geared towards how awards work and why you would get them, how different divions work with eachother, and what FIRST as an organization stands for and how the process of worlds would look like.

#### Expanding your Business and Media Subteams

During this session, you will learn how to expand your business and media sub-teams. We will go through the first steps of building a solid foundation, setting goals, how to start the expansion, creating a smooth and seamless transition, and giving insight into our team's transition.

#### Supporting Trans Students

What does transgender mean, what adversities do transgender students face, and how to support students students on your team and in FIRST as a whole.