



Pedro Pathing for FTC Robotics

COURSE OUTLINE

Course Description

PedroPathing 101 for FTC Robotics is an introductory class designed to help teams successfully integrate PedroPathing into their robots. It guides participants through the entire setup process, beginning with library installation and initial configuration, ensuring a solid foundation for effective use of the system.

Throughout the class, teams will learn essential skills such as calibration, path generation, and code implementation. By the end, participants will have an understanding of how to apply PedroPathing to improve their robot's navigation and performance in competition.

- 01** **Introduction to Pedro Pathing**
 - What is Pedro Pathing?
 - Benefits/Drawbacks (Pedro Pathing vs. Road Runner)

- 02** **Requirements & Library Installation**
 - Android Studio (Java)
 - Git Clone or Manual Installation
 - Dashboard

- 03** **Initial Setup**
 - Drivetrain constants
 - Localization constants

- 04** **Tuning**
 - Forward/Lateral Velocity
 - Heading
 - Drive (PID vs. Predicative Braking)

- 05** **Tests & Troubleshooting**
 - Line/Triangle/Circle
 - Troubleshooting basics
- 06** **Visualizer**
 - Using the Pedro Pathing visualizer
 - Linear vs. Tangent
- 07** **Programming a Path**
 - Defining poses
 - PathBuilder
 - Using a Finite State Machine (FSM)
- 08** **Additional Resources**
 - Pedro Pathing website
 - Online visualizer
 - Discord
- 09** **Questions & Comments**