

## 2018 Workshop Sessions Sponsored by ECPI

Welcome to the 2018 *FIRST* Tech Challenge Kickoff Workshops! This is a great opportunity for your rookie students to become familiar with *FIRST*, and your experienced students to learn new skills and up their game for the coming season. Below is a description of each session.

Please note, all sessions have limited capacities. Please plan on splitting your team up to gain the most from this resource.

<b>Programming - BLOCKS</b>	The Blocks Programming tool is integrated into the <i>FIRST</i> Tech Challenge Android Robot Controller app and it provides an intuitive and easy-to-use method to program a robot. This session is geared for new users and developing teams.
<b>Programming - Android Studio</b>	Android Studio is an integrated development tool that lets teams create Java (text-based) programs for their competition robots. Android Studio offers great flexibility when writing a program for a competition robot.
<b>Programming- Java On-bot</b>	On-Bot Java Programming Tool - An easy-to-use, browser-based Java development tool. On-Bot Java lets users program in Java without the need for installing Android Studio. This session is geared for new users and developing teams.
<b>CAD SolidWorks</b>	FRC Alumni or ECPI Professors present CAD with Solidworks: learn design process, interfacing with software, key skills, features, mates, assembly, sketching, mirroring, mass properties and more
<b>CAD PTC Creo</b>	ECPI will present the basics of PTC CREO; includes mates, importing KOP, and utilizing tools
<b>Electronics, Sensors, and Beyond</b>	Learn from ECPI instructors and an FTC team the best practices when wiring a robot and relevant applications for sensors
<b>Beyond the KOP/Game Analysis</b>	Learn new concepts to go beyond the KOP when building your robot and strategize with your peers to analyze this year's game. A great opportunity to brainstorm ideas for how to solve the Rover Ruckus challenge.
<b>Rookie best practices</b>	Come learn best practices, as well as what pitfalls to avoid as a new FTC team, to have a successful season
<b>Engineering Notebook</b>	Judge Advisors and a successful team explain the Engineering notebook theory, discuss the process and help unlock the mystery of what judges are looking for
<b>Fundraising and Sustainability</b>	A longstanding team shares their secrets to developing a strategy for funding, recruiting team members, and establishing relationships with industry mentors
<b>AWARDS/ Judging</b>	Judge Advisors explain the FTC awards criteria, advancement process, and offer insight into the judging process and what makes a successful presentation
<b>Intro to Mechanical Engineering</b>	ECPI will provide an overview of ME, a team will provide examples of how they use engineering skills to design and build their robot
<b>Mentor round table</b>	This is your opportunity to talk face to face with your FTC Partner or Senior Mentor, ask questions, learn about program changes, and have your voice heard in the FTC community. Will also allow time for unstructured Q&A between mentors.
<b>Marketing and Branding</b>	ECPI will be providing instruction on how to develop your teams brand, and market them to judges and sponsors. Also learn how to use social media in an effective manner.
<b>Mock Judging room practice</b>	Teams, this is your chance for feedback from our judges! Veterans and move up FLL teams-sign up in advance. Dust off your presentation from last season and learn what you can do to improve. New to <i>FIRST</i> ? Come have a seat and learn from our experienced teams and the feedback they receive. Presentations should be 10-12 minutes. Judges feedback will take 5 min. Teams are only allowed combined 20 minutes total for both presentation and feedback from Judges.
<b>Round table with a WC Inspire team</b>	Wizards.exe and Schrodinger's Hat answer questions about their path to Inspire at the World Championship. The Teams that receive this award are strong ambassadors for <i>FIRST</i> programs and a role model <i>FIRST</i> Teams as well as a top contender for many other judged awards. The Inspire Award winner is an inspiration to other Teams, acting with Gracious Professionalism® both on and off the Playing Field. This Teas shares their experiences, enthusiasm and knowledge with other Teams, sponsors, their community.

<b>Game Reveal (field viewing)</b>	We will have an official FTC field available for teams to see, touch, and play on. Want to bring last year's robot to run on this year's field? - please plan on passing the "no field damage" part of the inspection process. We will have a printed copy of the game manual available for viewing and inspector and referee will be onsite to answer questions. Teams will be limited to 2 minutes on field in groups of 4 teams, if others are waiting.
<b>FTC Tips and Tricks</b>	World Champions Schrodinger's Hat teach teams how to navigate their FTC season using some of the tips they have learned along the way
<b>Diversity in <i>FIRST</i></b>	Gain knowledge for improving your team environment and culture towards diverse populations with a segment geared towards Women of <i>FIRST</i> , and LGBTQ+ <i>FIRST</i> . Session will have open discussion time moderated by a <i>FIRST</i> Chesapeake representative. Session will include effective strategies to cultivate acceptance of diverse students, mentors and community members; as well as examine the resources available to all. Open to students, mentors and parents.
<b>Mentor's Lounge</b>	Please feel free to hang out in ECPI's Library if you need a cup of coffee, or a few quiet minutes. It is entirely acceptable to use this space while students are in sessions. Mentors only, no one under 19 allowed.