



**HIGH TECH KIDS**  
BUILD. CREATE. THRIVE.™



## 2017 MN FTC KICKOFF BREAKOUT SESSION SUMMARIES

### Judging

#### **Judging 101**

Teams both old and new struggle with judging: what it is, how to prepare for it, and what to cover. In this presentation we will cover what to present about, tips for how to connect with judges, and basics of pit judging. We hope to give all teams the skills to showcase their accomplishments.

**FTC Team: 9890**  
**RUBIES**  
Rookie Year: 2015

#### **The Engineering Notebook: The Most Painstaking Fun You'll Ever Have**

It's widely agreed that writing the Engineering Notebook is the least-fun part of FTC. But if you learn how to write efficiently, it'll be less like homework and more like an opportunity to celebrate your stellar season. We'll discuss elements of the notebook and how to display your progress.

**FTC Team: 8808**  
**Ponytail Posse**  
Rookie Year: 2014

#### **Try Something New! Video Production for Beginners**

Want to win an Emmy? How about the next best thing: a Promote or Compass award? Learn basics and specifics for different formats of video, from live action to animation. We'll take you on a tour from the camera to the editing software so you can create your own video masterpiece.

**FTC Team: 8808**  
**Ponytail Posse**  
Rookie Year: 2014

### Team Basics

#### **Community Outreach: Tips, Tricks and Strategies!**

Come one, come all! Whether you are a rookie team or a veteran team, this session on community outreach will benefit you. We'll be covering what outreach is, how much to do, what kind to focus on, prioritizing events, having an overall mission in your outreach, saying "no" when you have too many eve

**FTC Team: 9205**  
**Iron Maidens**  
Rookie Year: 2014

#### **Tackling a Tournament**

It's basically a tournament 101. We will cover what a tournament is like, how to scout, what to prepare for, how to handle the frenzy, what to do if your robot breaks down, and more.

**FTC Team: 11872**  
**Visible Spectrum**  
Rookie Year: 2016

#### **Rookie Mistakes and How to Avoid Them**

Do you know any new FTC teams? As former rookies, we have made our fair share of mistakes. In this session, we will share our rookie experiences so that others don't make the same mistakes. We will cover a broad span of topics and make being a rookie team a more successful experience.

**FTC Team: 11299**  
**CrushBots**  
Rookie Year: 2016

## Mixin' & Minglin'

### Confessions of a Volunteer

Ever wonder how you can contribute without spending a penny? Learn how giving back to the MN FTC Robotics Community can be as rewarding to you as participating is to your child. Volunteers make this program possible, see how you can help!

**MN FTC Judge Advisor  
Christine Altenhofen-  
Sonner**

Rookie Year: 2011

### Communication – Keeping Everyone in the Loop

Cooperation is essential to FIRST, but what is perhaps the most crucial part of meeting, competing, and agreeing with team members, competitors, and judges? Communication! Come learn how and where communication is used in robotics as well as how your own team can strengthen its communication skills

**FTC Team: 9205  
Iron Maidens**

Rookie Year: 2014

### What We Wish We Knew: Rookie Team Coaches

2016-2017 was the rookie year for Spartan Robotics, in this session, the team's two coaches will share their advice for other coaches new to FTC. Topics covered will include team management tips, and advice for how to approach the build season and competitions.

**FTC Team: 11117  
Coaches from  
Spartan Robotics**

Rookie Year: 2016

## Programming

### GitHub Integration

We will show you how to set up GitHub for code version control and integrate it with Android Studio, and we'll explain the tricks to getting it to work on both Mac and Windows. By the end, you will know how to store, synchronize, and update your team's code with the push of a button.

**FTC Team: 11117  
Spartan Robotics**

Rookie Year: 2016

### Autonomous & Advanced Sensors

Autonomous and Sensors go hand in hand. Learn how to create new autonomous op-modes in Java using Android Studio, get data from sensors, and methods to troubleshoot your programs when they don't work.

**FTC Team: 11117  
Spartan Robotics**

Rookie Year: 2016

### Starting with Vuforia

Vuforia seems a bit scary but programmers with a bit of experience should find it pretty easy to get started with. See how to make a robot follow you like a cat (with a hat).

**FTC Team: 10273**

**Cat in the Hat Comes Back**

Rookie Year: 2015

## Elements of Design

### CAD and 3D Printing: The Digital Fabrication of Your Robot

This presentation will go over the two broad functions of CAD that can be applied to robot design: making a digital copy of your robot and designing custom parts for robot functions. It will also include tips on designing for 3D printing in order to have strong and reliable custom plastic pieces.

**FTC Team: 8808**

**Ponytail Posse**

Rookie Year: 2014

### Robot Design and Strategy

This presentation will be about how to design a competitive robot along with strategies to improve its functionality.

**FTC Team: 8686**

**Height Differential**

Rookie Year: 2014

### Saving Time and Reducing Errors Programming your Robot

Strategies & techniques for saving time through better planning and documentation using the JavaDoc along with an introduction to object oriented design and how it can make code re-usable. Use of custom exceptions, the stack trace, and defensive coding will be covered as well.

**FTC Team: 10568**

**The Regal Kiwis**

Rookie Year: 2015