



# Learn everything you need to know about the new FTC Controller!

## Supporting You

- Whether you are a new team or current champion, we will make sure you have all the tools and knowledge you need to create the best robots possible.
- Learn the three ways to program.
- Connecting the Hardware.

## About the on-line learning portal

Our twenty hour program for new and existing *FIRST* teams is an easily accessible on-line learning environment that will engage you in hardware and programming changes including getting started, App Inventor and Intro to Java.

Hardware and Getting Started Available June 5<sup>th</sup>  
App Inventor and Intro to Java Available September 1<sup>st</sup>

Go to our website and click on “Get to know the 2016 FTC Controller” to register for program updates.



[www.first.intelitek.com](http://www.first.intelitek.com)

Scan the QR code and bookmark [www.first.intelitek.com](http://www.first.intelitek.com)

## Capability:

Our program provides everything you'll need to get your robots up and running but we know it's easier said than done. This is why during our full twenty hour program we will make sure to assist you through the entire process step by step. Every participant will receive several hours of software programming training that covers the basics on getting started, all the way through to learning Java and putting it all together.

# FTC Curriculum Outline

<b>TOPIC 1</b> <b>Hardware and Control System Components</b>	<b>TOPIC 2</b> <b>Programming with App Inventor</b>	<b>TOPIC 3</b> <b>Programming with Android Studio</b>
<ul style="list-style-type: none"><li>▪ Robot controller – ZTE speed Android</li><li>▪ Driver station – ZTE speed Android</li><li>▪ Power module</li><li>▪ Legacy module</li><li>▪ DC motor module</li><li>▪ USB communication</li><li>▪ 12 VDC power input</li><li>▪ Connecting DC motors</li><li>▪ Retrofitting a TETRIX bot</li><li>▪ Retrofitting a MATRIX bot</li><li>▪ Servo controller module</li><li>▪ Advanced sensor module</li></ul>	<ul style="list-style-type: none"><li>▪ Software download and installation</li><li>▪ Setup of robot controller Android device</li><li>▪ Setup of driver station Android device</li><li>▪ How to use App Inventor<ul style="list-style-type: none"><li>○ Configuring the robot and sensors</li><li>○ How to name and assign controllers, motors and sensors</li><li>○ How to modify sample code</li><li>○ Basic programming</li><li>○ How to write Autonomous code</li><li>○ How to write Tele-op Code</li></ul></li></ul>	<ul style="list-style-type: none"><li>▪ Software download and installation</li><li>▪ Setup of robot controller Android device</li><li>▪ Setup of driver station Android device</li><li>▪ How to use Android Studio<ul style="list-style-type: none"><li>○ Configuring the robot and sensors</li><li>○ How to name and assign controllers, motors and sensors</li><li>○ Download and run sample code</li><li>○ How to modify sample code</li><li>○ Basic Java programming</li><li>○ Writing Autonomous code</li><li>○ Writing Tele-op code</li></ul></li></ul>