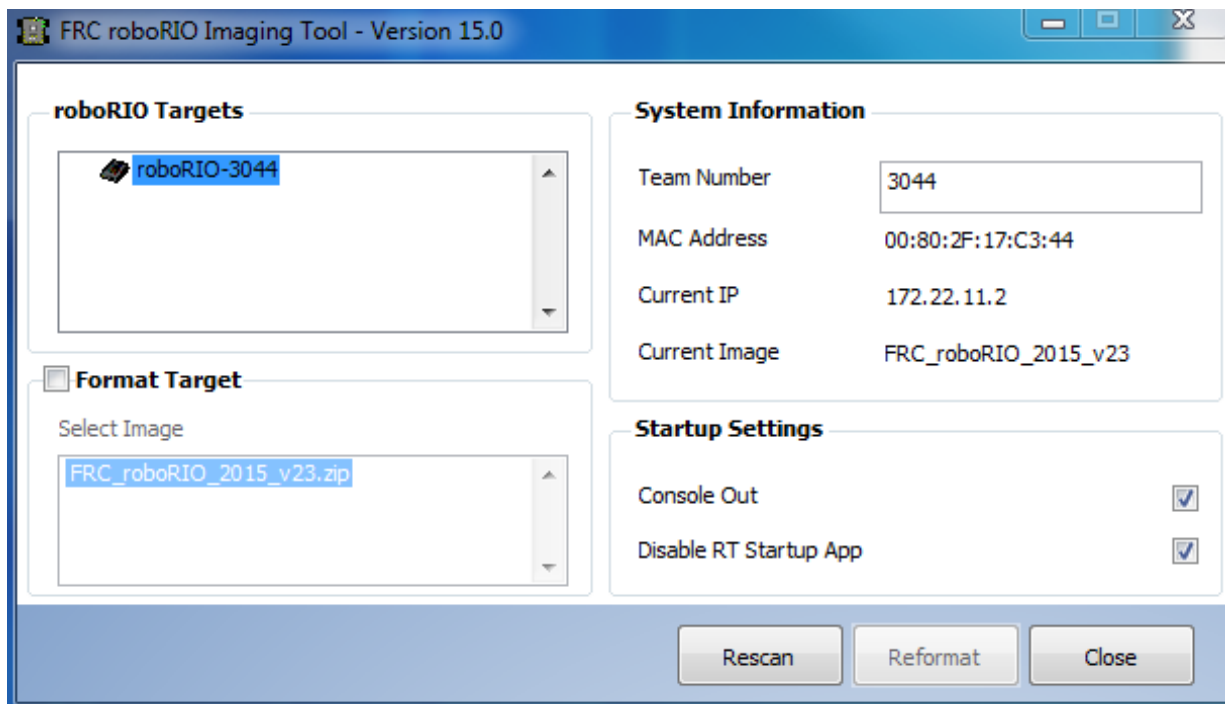


Connecting and Deploying to the RoboRIO

Whether you're new to FIRST or a seasoned competitor, this will be your first year with the RoboRIO. This device is powerful, compact, rugged, and specifically designed with the FIRST competition in mind. Once you've imaged the RoboRIO, connecting to the device will be essential to making progress towards a successful robot. This document provides you with a few essential troubleshooting steps to connect and deploy to your RoboRIO.

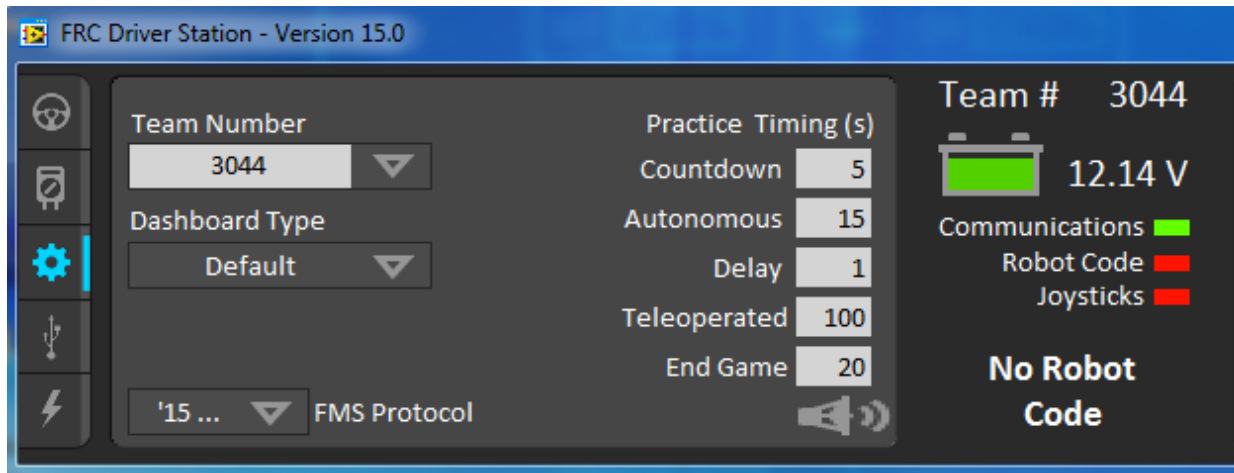
Connecting and Deploying:

1. Connect your RoboRIO via Ethernet or USB and power it on.
2. Open the RoboRIO imaging tool, found by opening LabVIEW and navigating to Utilities > FRC roboRIO Imaging Tool – Version 15.0. Allow the tool to scan and locate your device. The Current IP address will be displayed on the right hand side of the tool – this is a great way to check the RoboRIO's IP if you are ever unsure.

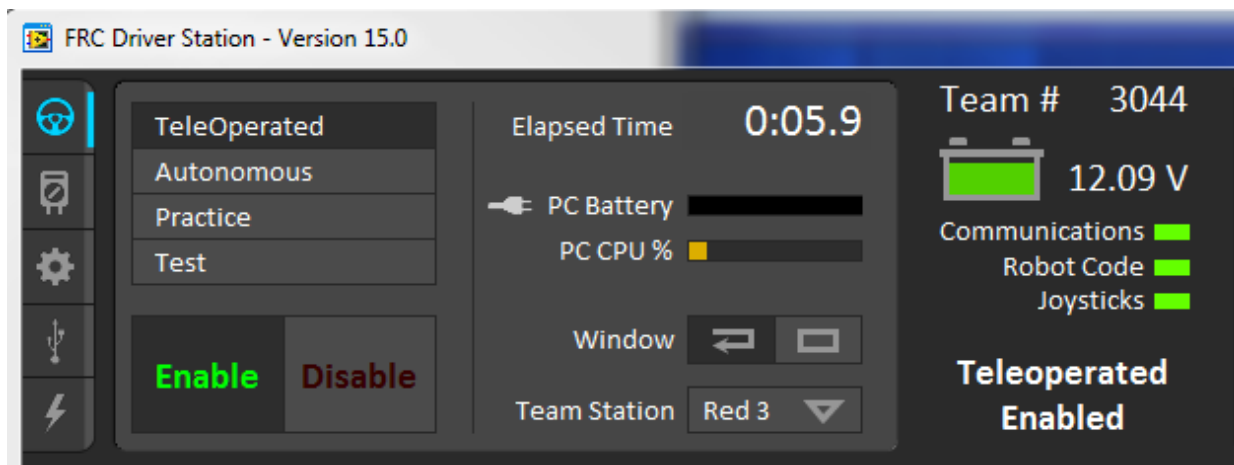


3. Open the FRC Driver Station – Version 15.0, searchable by name in Windows Explorer. Select the Settings tab, the third icon down on the left-hand side. Enter your team number or current IP in the Team Number field. The Communications light in the driver station will be green if you connect successfully.

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4. Run your RoboRIO code. Then, on the Operation tab, select “Enable” to see the code control your robot. The Robot Code light on the driver station will be green if you deploy successfully. If you connect a USB joystick to your computer, the Joysticks light on the driver station will be green as well.



Troubleshooting the connection: (Communications light = red)

- Double check the IP address in the Imaging Tool – enter this in the Team Number field.
- Change the connection type (USB to Ethernet or vice versa) and attempt to reconnect. Make sure to check the IP address and change in the driver station if need be!
- Power cycle your system: turn off and disconnect the RoboRIO, and close out of any software that works with the device. Then, reconnect the RoboRIO, power on, and attempt to reconnect.

Connecting and Deploying to the RoboRIO

- Make sure your battery is charged – connections can be dropped or unattainable if your battery is not sufficiently charged.

Troubleshooting the deployment: (Robot Code = red)

- Double check that you've enabled robot code in the driver station – this can disable after idle periods if your code is not running.
- Make sure you're connecting to the RoboRIO – check the Communications light on the Operation tab of the driver station. If this is not green, you'll need to troubleshoot your connection (see above).
- Try running another piece of code. You can access examples in LabVIEW by navigating to Help > Find Examples and opening the roboRIO folder found within the FRC Robotics folder.

As a reminder, this information (and more!!) can be found in the FRC LabVIEW Quick Start Guide 2015, located on the NI FIRST Robotics page:

https://decibel.ni.com/content/community/academic/student_competitions/frc