

March 8, 2011

## TEAM UPDATE #17

### GENERAL NOTICES

#### Observations from Week 1 Regionals:

Thanks to all the teams that came out to compete in all the week one events. The competitions were successful, and we look forward to week two. Below are observations from the events that may help teams be ready to take the field.

- For “Bag & Tag” events, teams may deliver all equipment to their pit during the “load-in” time on the public agenda for that event. Please note however, that no setup is permitted. This includes, but isn’t limited to, charging batteries, setting up tool cases, etc.
- Please make sure your software is up to date. If the software is not updated to the versions listed below, your robot will not work with the FRC field.
  - o cRIO image: FRC\_2011\_v28
  - o Driver Station software: 01.05.11.00 or 02.27.11.00
- In order for radio performance to be consistent, it must be connected to the 5V power converter and the 5V power converter must be plugged in to the dedicated 12V supply on the Power Distribution Board.



- In order for the radios to connect to the field’s access point, they must be switched to “bridge” mode.



- Teams can simulate their robot’s behavior when connected to the Field Management System by replicating the order of operations typical on the field. The following steps imitate a typical start-up process when on the competition field. Before doing this, you must make sure that, in the “Setup” tab of the Driver Station, the Autonomous time and the Teleoperated time are set to 15 seconds and 120 seconds respectively. Also, ensure that the Driver Station is set to “Practice” and “Disabled.”
  - o Boot the robot (cRIO, etc) *without* communication (either not tethered, or not connected via wireless link).

- Boot the radio in bridge mode (this requires either a tether or external access point).
  - Once the radio has booted up (flashing orange bridge light for at least 10 seconds), connect the robot to the Driver Station – either by tethering or powering the external access point.
  - In the “Operation” tab of the Driver Station, ensure the “Practice” button is still selected, and click “Enable.”
- If you are not using a Classmate as your Driver Station (and thus not using a FIRST image), you must configure your PC per the document posted [here](#) (i.e. the Driver Station software must be running in account called “Driver” when created.)
  - If a team is using a CAN network on the robot, they should check the messages in the “Diagnostic” tab of the Driver Station before a match starts to ensure that there aren’t any scrolling CAN timeouts. If there are such messages, give the MC a “thumbs down” to show you’re not ready and click on “Reboot Robot” to restart the cRIO and clear the errors. Teams will only see such timeout errors if it’s properly handled in code, and they should take care to ensure that these exceptions are handled such that they can be seen on the field.

## Section 1 – Introduction through Section 3 – The Game

No changes.

## Section 4 – The Robot

### Inspection Checklists:

The *Robot Inspection Checklist* and *Mini Bot Inspection Checklist* have been upgraded to Rev B. Edits provided additional detail to existing items, but did not add new items.

### BOM Naming Convention:

Before you submit your electronic BOM to inspection, please save the file using the following naming convention: FRCxxxx\_City.xls (Microsoft Excel 97/2000/XP), FRCxxxx\_City.csv, or FRCxxxx\_City.ods (ODF Spreadsheet), where “xxxx” is your team’s four-digit team number (i.e. 0011) and City is equal to the city in which your event takes place (i.e. Manchester). For the Championship, City should be your team’s Division (i.e. Curie). Thank you for doing this, as it will facilitate the data mining after the season!

### Driver Station Software update:

An update to the Driver Station software, version 02.27.11.00, is now posted here: <http://joule.ni.com/nidu/cds/view/p/id/2263>. The update is highly recommended, not required, for competing in the 2011 FRC. There is no effect on performance of the Driver Station software and the update is out of convenience, not safety or functionality.

The update changes the way the network IP addresses are assigned to the PC. It removes all existing IP addresses assigned to the wired and wireless network interfaces and replaces them with the ones required for communication with the robot and defined by the Driver Station software when the team number is added in the Driver Station's "Setup" tab.

Without the update, there's a possibility for multiple IP addresses to be assigned to a single network interface, and thus the PC recognizes the FMS, but the FMS doesn't recognize the PC. The fix for the current Driver Station version (01.05.11.00) is a multiple-step process that has the potential to delay game play. If necessary, the field crew will perform the steps and likely recommend the update.

## Section 5 – The Tournament through The Kit of Parts

No changes.