



Team Update I2

General Notes

- **Robot Lockup Form.** The following edit was made to the Robot Lockup Form:
3. Stop build day is 04:59 UTC on Wednesday, February 22, 2017 which is 11:59 PM Eastern on Tuesday February 21, 2017.
- **FRC Driver Station Software.** A mandatory update for the FRC Driver Station has been released (NI FRC Update Suite 2017.1.0, DS version 17.0.1) and can be downloaded from [here](#). This update fixes bugs in DS<->FMS connectivity for both the regular FMS and FMS Offseason.
- **C++\Java Eclipse.** An optional update for the C++\Java Eclipse plugins has been released (2017.3.1). This update has fixes to SmartDashboard (especially regarding Sendable Chooser), CameraServer, and I2C/SPI communications. A full changelog can be found [here](#). Update instructions can be found [here](#).
- **2017 FRC Inspection Checklist.** The following edit was made to the [2017 FRC Inspection Checklist](#):
Driver Station – ~~17.0a11~~ **17.0.1** <R96>

Section 4.6 Logistics

Once the MATCH is over, if the Head REFEREE determines that the FIELD is safe for FIELD Staff but not safe for everyone (e.g. the FIELD is littered with FUEL that may cause a tripping hazard for a DRIVE TEAM carrying a ROBOT), they will turn the LED strings purple. Once the FIELD is ready for regular traffic, the Head REFEREE will change the LED strings to green and DRIVE TEAMS may retrieve their ROBOT in accordance with S04.

Section 7.3 ROBOT to ROBOT Interaction

- G14.** Don't climb on each other. Unless attempting to right a fallen (i.e. tipped over) ALLIANCE partner, ROBOTS may neither fully nor partially support the weight of other ROBOTS strategically or repeatedly.

Section 8.7 Power Distribution

- R44.** The one (1) ROBOT battery, a single pair of Anderson Power Products (or APP) 2-pole SB type connectors, the one (1) main 120-amp (120A) surface mount circuit breaker (Cooper Bussmann P/N: CB185-120 or CB185F-120), and the one (1) CTR Electronics Power Distribution Panel (PDP, P/N: am-2856, 217-4244, 14-806880) shall be connected with 6 AWG (7 SWG or 16 mm²) wire or larger, with no additional devices or modifications, as shown in Figure 8-8.
- R57.** All circuits shall be wired with appropriately sized insulated wire:

Table 8-4: Wire sizes

Application	Minimum Wire Size
31 – 40A protected circuit	12 AWG (13 SWG or 4 mm ²)
21 – 30A protected circuit	14 AWG (16 SWG or 2.5 mm ²)
6 – 20A protected circuit	18 AWG
Between the PDP dedicated terminals and the VRM or PCM	(19 SWG or 1 mm ²)



Compressor outputs from the PCM	22 AWG
Between the PDP and the roboRIO	(22 SWG or 0.5 mm ²)
≤5A protected circuit	
VRM 2A circuits	24 AWG
	(24 SWG or .25mm ²)
roboRIO PWM port outputs	26 AWG
	(27 SWG or 0.14 mm ²)
SIGNAL LEVEL circuits (i.e. circuits which draw ≤1A continuous and have a source incapable of delivering >1A, including but not limited to roboRIO non-PWM outputs, CAN signals, PCM Solenoid outputs, VRM 500mA outputs and Arduino outputs)	28 AWG
	(29 SWG or .08 mm ²)

Wires that are recommended by the device manufacturer or originally attached to legal devices are considered part of the device and by default legal. Such wires are exempt from R57.

Section 8.10 OPERATOR CONSOLE

- R96.** The Driver Station software provided on the [National Instruments website](#) is the only application permitted to specify and communicate the operating mode (i.e. Autonomous/Teleop) and operating state (Enable/Disable) to the ROBOT. The DRIVER Station software must be revision ~~17.0a11~~ 17.0.1 or newer.