

February 15, 2011

TEAM UPDATE #11

GENERAL NOTICES

At the Events, Rev 1 has been updated to include the following information:

4.4.1 Robot Wireless Control

- Robots may be operated via wireless control only on the competition fields and the practice field with the FIRST supplied radio; and
- Teams are not allowed to set up their own 802.11a/b/g/n (2.4GHz or 5GHz) wireless communication (access points or ad-hoc networks) in the venue

Wiring Diagrams:

The *Data Connectivity* and *Power Distribution* diagrams have been fixed to include appropriate wiring alternatives as described in the **2011 FRC Game Manual**. They are posted on the Kit of Parts site: www.usfirst.org/frc/kitofparts.

Section 1 – Introduction

No changes

Section 2 – The Arena

Section 2, The Arena, Rev D has been updated to include the following information:

2.2.5 The TOWERS

TOWERS are located near the mid-field end of each LANE and are owned by the ALLIANCE associated with the LANE in which it is located (i.e. the TOWER intersecting the red LANE is owned by the red ALLIANCE). The TOWERS are climbed by MINIBOTS during the END GAME of a *LogoMotion* match. Each TOWER is composed of a BASE, a POST, and a TARGET. The BASE is a cylindrical section approximately 30 inches in diameter by 12 inches tall. The sides and top of the BASE are covered in translucent white LDPE plastic.

The BASE rests on a 48-inch by 76-inch floor protector made of 3/16-inch HDPE. The floor protector is velcroed to the FIELD surface, and covered with a piece of similar carpet. The floor protector carpet is 84" wide by 94.5" long. It has a 42" radius at one end (similar in shape to the floor protector). The edges of the floor protector ~~over~~ carpet are taped to the FIELD carpet (Pro Gaff Tape, "black", 2-inch). The tape extends the outside dimensions of the floor protector carpet by an additional 1" on the taped seams (note: there is no extension on the side of the carpet against the field border). The final outside dimension is 86" wide by 95.5" long. This taped seam forms a slight (approximately 1/4 inch) ridge in the FIELD

Section 3 – The Game

Section 3, The Game, Rev K has been updated to include the following edit:

<G33> During the TELEOPERATED PERIOD, neither ROBOTS, HOSTBOTS, nor MINIBOTS may break the planes of the vertically projected borders of the opponent's LANES, including a GAME PIECE in their POSSESSION. Momentary incursions by a POSSESSED GAME PIECE will not be penalized if they do not make contact with anything in the LANE. *Violation: PENALTY. G61 does not apply to this rule, however strategies aimed at taking advantage of this exception will result in a YELLOW CARD. If a ROBOT enters the opponent's LANE and does not make immediate effort to leave OR if it contacts another ROBOT (or GAME PIECE in its POSSESSION) also in the LANE, then the intruding TEAM will receive a RED CARD. (Exception: if a ROBOT should break the planes of the vertically projected borders of the opponent's LANES during the AUTONOMOUS PERIOD, it will have a "grace period" to remedy the situation at the beginning of the TELEOPERATED PERIOD; the grace period will be either 5 seconds or until an opponent ROBOT enters the LANE – whichever comes first.)*

Section 4 – The Robot

Section 4, The Robot, Rev J has been updated to include the following edits:

<R55> The control system is designed to allow wireless control of the ROBOTS. The Driver Station software, FirstTouch I/O module, cRIO-FRC, speed controllers, relay modules, radio, and batteries shall not be tampered with, modified, or adjusted in any way (tampering includes drilling, cutting, machining, gluing, rewiring, disassembling, etc.), with the following exceptions:

...

M. Devices may be repaired, provided the performance and specifications of the component after the repair are identical to those before the repair.

Please note that the Driver Station application is a separate application from the Dashboard. The Driver Stations software may not be modified, while teams are expected to customize their Dashboard code.

Note that if you are using the FirstTouch I/O module as part of the OPERATOR CONSOLE, you should not update the firmware if the manufacturer releases a new version. The new version will wipe out the *FIRST* custom firmware and your FirstTouch I/O module will no longer function with the Driver Station software.

Please note that while repairs are permitted per the **FRC Game Manual**, the allowance is independent of any manufacturer's warranty. Teams make repairs at their own risk and should assume that any warranty or RMA options are forfeited. Be aware that diagnosing and repairing components such as these can be difficult.

<R66> In addition to the items included in the KOP, pneumatic system items specifically permitted on 2011 FRC ROBOTS include the following items. All included items must be "off the shelf" COTS pneumatic devices rated by their manufacturers for working pressure of at least 125psi and burst pressure of 250psi, and used in their original, unaltered condition (except as required for assembly with other components).

A note about the edit to Rule <R66>: It has come to our attention that manufacturers in the pneumatic industry no longer typically offer burst pressure data, and therefore this is an unfair requirement of the teams.

<R93> Minibot motors may not be modified except:

- a) as allowed in Rule <R47 A-D>
- b) a burned out motor may be repaired by replacement of the burned-out inductor with an identical part.

Teams are encouraged to use caution when opening and closing MINIBOT motor cases.

Section 5 – The Tournament

No changes

The Kit of Parts

The 2011 Kit of Parts Checklist, Rev E has been updated to include VUVG-L10-B52-T-M7 as an alternate part number for the FESTO valves delivered in the Kit of Parts. There were two part numbers shipped for use in kitting and this revision allows teams to use either or both valves on the ROBOT.