

The 2003 FIRST Robotics Competition
TEAM UPDATE # 6

Date: **January 21, 2003**

PLEASE DISTRIBUTE THIS TO OTHER TEAM MEMBERS!

FIRST will provide rules updates and other important information to teams via the FIRST web site at:

<http://www.usfirst.org/robotics/2003/docs.htm>

Please check the team updates portion of the web site on a regular basis to insure that your team does not miss critical information about the 2003 FIRST Robotics Competition. FIRST recommends assigning at least one team member the duty of keeping up to date on all team updates. This person or group should be responsible for distributing information contained in team updates to the appropriate team members.

<p><u>QUESTIONS?</u></p>

MESSAGE BOARD

In order to post questions on our message board at:

<http://jive.ilearning.com/index.jsp>

- **You must reference the particular section of the manual you are questioning or your question will not be answered. This will help us give you the most accurate answer possible.**
- **Limit each message board submittal to ask only 1 question at a time. This will allow us to categorize your question and will enhance our ability to respond in a timely manner.**
- **Please state your inquiry as a question. Some submittals have been lengthy and we have had a great deal of trouble trying to find the question buried within.**
- **Do not reply to posted messages. FIRST is the only official source for answers. Your replies to posted questions slow down the moderating of this forum. Replies other than from FIRST will be deleted.**

AUTODESK, INC.

For all inquiries, please e-mail:

first.entries@autodesk.com

THE GAME

PAGE 14, DQ7

Cancel DQ7, as this is very similar to the intent of DA5.

PAGE 14, DQ10 (ORIGINALLY ADDED VIA TEAM UPDATE #5)

Cancel DQ10.

Add DA6 as follows:

A robot cannot inhibit the movement of another robot by pinning against the field border, diamond plate or platform/ramp structure for more than 10 seconds. If a robot has been pinned for 10 seconds, the team with the pinning robot will be told by the referee to release the robot and back away approximately 3 feet. Once the pinning robot has backed off by 3 feet, it may again attempt to pin its opponent and, if successful, the 10 second count starts over. If a referee determines this rule to be violated, the pinning alliance/team will be given 2 minor penalties. Another violation of this rule or another warning will mean that its robot will be disabled for the remainder of that match after it has backed away from its opponent.

A robot cannot intentionally lift a robot up such that it is totally off the playing field, in which case, the robot has been effectively removed from competing. If a referee determines this rule to be violated, the offending alliance/team will be given 2 minor penalties. Another violation of this rule or another warning will mean that its robot will be disabled for the remainder of that match after it has backed away from its opponent.

Add DA7 as follows:

During autonomous mode, if a robot:

- has created a safety issue/unsafe situation during the autonomous period, it will be disabled and re-enabled after expiration of the autonomous period unless, in the judgment of a referee, a robot should not be re-enabled for violation of another rule;
- pins another robot and/or tires are spinning, the robot(s) will be disabled and re-enabled after expiration of the autonomous period unless, in the judgment of a referee, a robot should not be re-enabled for violation of another rule.

PAGE 15, RULE T6

Change the 1st bullet to read as follows:

- ***For Regional Events:*** From the top eight (8) seeded teams, **starting with the #1 seed and proceeding sequentially through the #8 seed**, a pre-college student representative selects an alliance partner from among the remaining un-partnered teams. After all eight teams have selected their first partner, the process repeats and a second partner is selected.
- ***For The Championship Event:*** Teams are evenly divided up into 4 “divisions.” Within each division, from the top eight (8) seeded teams, **starting with the #1 seed and proceeding sequentially through the #8 seed**, a pre-college student representative selects an alliance partner from among the remaining un-partnered teams. After all eight teams have selected their first partner, the process repeats and a second partner is selected.

THE ROBOT

SPECIFICATION SHEET – SKIL-BOSCH MOTOR PINION

The engineering drawing that Skill-Bosch provided in PDF format for the pinion on the 1/2" drill motor cannot be read over our web site. Its resolution is not adequate.

Skil-Bosch Motor Pinion Specs

Teams may find it difficult to read the Skil-Bosch specs for the pinion on the 1/2" drill motor that is posted on our web site, drawing # 2606316188. The following are the critical parameters of this 15-tooth gear:

pitch diameter = 10.5 mm	addendum diameter = 12.81 mm
pressure angle = 20 degrees	root diameter = 9.31 mm
pitch module = 0.7	base diameter = 9.857 mm
tooth thickness = 1.369 mm	

PAGES 22-23, Update to C18 & C29

In order to give teams additional flexibility in the design and use of custom circuits used on the robot, FIRST has decided to allow teams to connect their custom circuit(s) to the programming port on the Robot Controller. This allows direct serial communication with the Basic Stamp IIsx CPU inside the Robot Controller. Teams are cautioned that application of improper voltages (greater than normal RS232) to the programming port may damage the Robot Controller and are not covered under warranty.

Innovation First does not provide technical support for teams wishing to utilize this feature. Program port pinout can be found in the document titled "Robot Controller Serial Port (Program Port)" on the Innovation First web site. Accessing the programming port from PBASIC is documented in the PBASIC programming manual from Parallax, Inc. as part of the SERIN and SEROUT commands.

KIT OF PARTS

MISSING OR BROKEN

For any missing parts or broken parts, please contact us at:

freparts@usfirst.org

LATE SHIPMENT

The 40A breakers arrived today. We expect to mail 4 of them to each team shortly along with a Yaw Sensor Connector Kit. This kit consists of a plastic connector and 3 pins (plus 3 spare pins).

FIELD / CORRECTIONS

There are none for this update.

AUTODESK

Nothing for this update.

AWARDS

There has been some team confusion about the Chairman's Award Executive Summary page. There were two versions on the web. In trying to give teams the opportunity to work on the award, the temporary data/form was posted in November. When the award was updated and finalized, the posting was not. The correct Chairman's Award Executive Summary form is in the hard-copy Manual, on the CDROM Manual, and in the Awards section of the on-line Manual. The outdated link on the FIRST website has been removed.