

## The 2003 FIRST Robotics Competition

**February 11, 2003**

**TEAM UPDATE**

**# 12**

### **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.

### **QUESTIONS?**

#### **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](mailto:first.entries@autodesk.com)

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### THE GAME

#### **REGARDING TEAM UPDATE #7, SECTIONS 7.1 + 7.3 – The 3’ Rule**

*As a note of interest, the 3’ rule was implemented to make the autonomous mode (no driver interaction) obvious to the audience.*

The 3’ rule, as implemented by the changes in Team Update #7, may not have considered exotic control systems that are “worn” by team members. So as not to discourage creativity in this area, FIRST will allow these types of controls to be used. The 3’ rule will be modified to now allow team members to be standing with both feet **on** the line, not behind the line.

Wearable controls are likely to come in all sizes, shapes, and colors so, if you have wearable controls, be it gloves, headgear, platform hung from shoulder straps or whatever, you must do the following:

- Your OI must be on the diamond plate shelf so that its competition port can be connected with the provided DB15 cable;
- Your wearable controls must be connected to one of the Ports 1 – 4 **AND** this connection must have some sort of quick connect/disconnect (of your choice) in this line;
- Upon expiration of the autonomous period, you may step forward and use your quick connect and begin driving.

It is **HIGHLY** recommended that all teams/team members keep their hands **OBVIOUSLY** away from their controls. Use of your controls or, in a referee’s judgment, anything that looks like use of your controls during the autonomous period will be cause for Disqualification for that match.

#### **PAGE 4, SECTION 7.1**

##### **The last sentence should now read:**

The remaining 2 players and a coach from each team must stand in their driver station **on** a line that is 3’ from the base of the driver station.

#### **PAGE 4, SECTION 7.3**

##### **The 2<sup>nd</sup> paragraph should now read:**

The only operator control allowed during the autonomous robot control period is activating of the Emergency Stop (E-Stop) buttons located in the driver stations, which will disable that robot’s power supply. A team player, not a coach, is allowed to **leave** the 3’ line in order to activate the E-Stop button.

#### **PAGE 7, RULE GM9**

Templates may not be used for robot placement on the field.

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### **PAGE 5, SECTION 8.2**

#### **Replace 8.2 with the following:**

Each elimination round will be comprised of 2 matches. The elimination matches will be scored exactly like the qualifying matches except that the points will be referred to as Elimination Points (EP's). Both teams in the losing alliance get their own alliance score in EP's. Both teams in the winning alliance get their own score plus twice the losing alliance's score in EP's. A tie awards the total of the match points to both alliances in EP's. After the two matches are completed, the alliance with the highest combined total **EP** score advances to the next round. In the event of a tied score, **a 3<sup>rd</sup> and final match will be played. The highest EP score for this match advances. If the alliances are still tied, the winning alliance will be determined using the following criteria:**

- **Alliance with the highest EP score for 1 of the 3 matches in this round;**
- **Higher seeded alliance (1 is highest seed and 8 is the lowest seed).**

### **PAGE 12, RULE SC14**

**A revised SC14 is presented here in total as revised by Team Update #5 as a courtesy:**

- All teams start each competition event with zero (0) qualification points (QP's) and accumulate QP's throughout the qualifying matches.
- Teams that do not show up for a scheduled qualification match will receive zero (0) match points and zero (0) QP's. Participating teams will receive their match score and QP's as normal.
- The winner of a match is the alliance with the highest score. In each qualifying match, all teams that participated in the match receive QP's as follows:
  - Each team in the losing alliance receives their match score in QP's;
  - Each team in the winning alliance receives their own score plus double the number of match points of the losing alliance in QP's;
  - If 1 team is disqualified, the match will be played as a 2 on 1 and scoring is as normal; the DQ'd team will receive 0 QP's;
  - If an entire alliance is disqualified, the other alliance receives double their own score in QP's; the DQ'd alliance will receive 0 QP's;
  - Ties are allowed. In the event of a tie, all 4 teams get the total of the scores of both the RED and BLUE alliances;
  - At the conclusion of all of the qualification matches, teams are ranked by dropping their lowest QP score and averaging the rest. If teams must play an extra match to balance out the matches in a competition, the score of the extra match **and** their lowest score are dropped before averaging. Teams will be ranked using the following hierarchy of criteria (in order from most to least important):
    1. Highest average qualifying point total;
    2. Highest number of matches won during qualification matches;
    3. Highest match score;
    4. Flip of a coin.

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### PAGE 12, RULE SC15

**Replace SC15 with the following:**

- All teams start the elimination rounds with zero (0) elimination points (EP's) and accumulate EP's throughout the elimination rounds.
- **Alliances** that do not show up for a scheduled match will receive zero (0) match points and zero (0) EP's. Participating **alliances** will receive their match score and EP's as normal.
- The alliances play 2 matches. The elimination rounds will be scored exactly like the qualifying matches.
- The winner of a match is the alliance with the highest score. In each elimination match, each alliance will receive EP's as follows:
  - The losing alliance receives their match score in EP's;
  - The winning alliance receives their own score plus double the number of match points of the losing alliance in EP's;
  - If 1 team is disqualified, that entire alliance is DQ'd; the DQ'd alliance will receive 0 EP's and the other alliance receives double their own score in EP's;
  - Ties are allowed. In the event of a tie, both alliances get the total of the scores of both the RED and BLUE alliances;
  - The alliance with the highest total **EP** score advances to the next round;
  - In case of a tie, one more match is played, whereby the highest **EP** score **for this match** advances. If still tied, **the winning alliance will be determined using the following criteria:**
    - **Alliance with the highest EP score for 1 of the 3 matches in this round;**
    - **Higher seeded alliance (1 is highest seed and 8 is the lowest seed).**

### PAGE 14, ADD RULE DQ10

**Add DQ10 to read as follows:**

Use of your controls or, in a referee's judgment, anything that looks like use of your controls during the autonomous period will be cause for Disqualification for that match.

### PAGE 15, RULE T8

**Modify T8 as follows (the diagrams have been left out to save space):**

Alliances competing in the elimination matches are paired as follows:

- **For Regional Events and the Divisions at *The Championship Event*:** All series are 2 matches. **In the event of a tie after the 2 matches, the winning alliance will be determined as described in SC15.** The alliance led by the 1<sup>st</sup> seed competes against the alliance led by the 8<sup>th</sup> seed in a series of quarterfinal matches; the alliance led by the 2<sup>nd</sup> seed competes against the alliance led by the 7<sup>th</sup> seed in a series of quarterfinal matches, etc. Winners of the quarterfinal matches compete against each other in a series of semi-

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final matches. Winners of the semi-final matches compete against each other in a series of final matches with the winning alliance becoming the Regional Champion. *See Figure T-1 below.*

Figure T-1 deleted to save space

- **For *The Championship Event Championship*:** All series are 2 matches. **In the event of a tie after the 2 matches, the winning alliance will be determined as described in SC15.** Division Champions compete against each other in a series of semi-final matches. For the semi-finals, the Division Champions will compete against each other based on the divisions they came from and will not be ranked relative to each other. The division pairings will be announced in the future on the FIRST web site after the division names have been finalized. The winners of the semi-final matches then compete in a series of matches with the winning alliance becoming The Grand Champions. *See Figure T-2 below.*

Figure T-2 deleted to save space

### THE ROBOT

#### **PAGE 18, RULE M8**

##### **Revolving light visibility:**

We thought Team Update #5 that talked about the visibility of the revolving light was clear but given the number of follow-up questions, apparently not. Many questions have been answered on the Message Board as well relative to the light. Please... follow the intent of this rule: mount your light upright, make sure you can change the lens easily, and make sure it is quite visible most of the time.

Likewise, your light should not take abuse and get broken because you decided to travel under the midfield barrier. While we are in no position to tell you how to design your robots and we thoroughly enjoy seeing the creative solutions that you surprise us with season after season, please protect the poor light. It had a long boat trip from Taiwan.

#### **VICTOR SPEED CONTROLLERS - Reminder**

A reminder to veteran teams. The Victor 883 speed controllers from previous years are **NOT allowed** this year. The Victor 884 can handle more current and is the only allowed speed controller.

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**KIT OF PARTS**

**MISSING OR BROKEN**

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

[freparts@usfirst.org](mailto:freparts@usfirst.org)

**FIELD / CORRECTIONS**

There are none for this update.

**AUTODESK**

There are none for this update.

**ADMINISTRATIVE/MATERIAL HANDLING/SHIPPING**

There are none for this update.