

The 2003 FIRST Robotics Competition
TEAM UPDATE # 7

Date: **January 27, 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.

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| <p><u>QUESTIONS?</u></p> |
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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 4, SECTION 7.1

Replace the last sentence with the following:

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

PAGE 4, SECTION 7.3

Replace the 2nd paragraph with the following:

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 cross the 3' line in order to activate the E-Stop button.**

THE ROBOT

NIPPON-DENSO MOTOR

The specs for the Nippon-Denso window motor are now available on the FIRST website.

SKIL-BOSCH ½" DRILL MOTORS

Cautionary Note About Skill-Bosch Drill motors!!!!

DO NOT attempt to unsolder the wires that are attached to the Skill-Bosch motors. The plastic housing that holds the brush assemblies will be damaged if you do. *The high temperature of the soldering process causes the plastic to deform and destroys the motor.* Teams should make their electrical power connections to the motors' pre-attached wires, not directly to the brush holders.

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 are in. They were shipped Friday, 1/24/2003, along with a Yaw Sensor Connector Kit. This kit consists of a plastic connector and 3 pins (plus 3 spare pins). Shipments to Brazil, the UK, and Puerto Rico will be sent express mail. Shipments to Canada will all go to Mark Breadner for distribution.

OPTICAL SENSORS - CLARIFICATION

There has been some confusion on the message boards regarding whether or not optical sensors, other than the Banner Engineering sensors listed in the Restricted Parts List, are allowed, and what restrictions there are on their use. The correct answer is that Optical Sensors, other than the Banner Engineering sensors, are allowed as part of the Additional Electronics listed at the top of the Electronics category and are subject to the restrictions in Rule K5. Optical sensors used on the robot, whether from Banner, Digi-Key or Future

Active, may be used to emit and sense light both within the robot and on the field, such as for line tracking or container location. It is not acceptable to use light emitters (or any other means, for that matter) to try to interfere with other robots' control systems. It is not acceptable to use optical sensors (or anything else other than the Innovation First radio modems) to provide remote control input to the robot from outside the playing field borders.

PNEUMATICS

This year, like the last few years, free cylinders will be available to all the teams. Each team is allowed 3 free cylinders. However, there may be an allotment of additional cylinders so if you have already ordered 3, please check with HPE Automation if you need more.

YOU CAN ONLY USE THE 1 CYLINDER FROM THE KIT OF PARTS PLUS THE 3 FREE CYLINDERS = 4 TOTAL ON YOUR ROBOT AND ITS ASSEMBLIES.

The same procedure will be used this year as last year. The last page of the Pneumatics manual is the ordering guide. Please fax your orders to the number given on that page.

All custom ordered cylinders will be shipped from Bimba Manufacturing this year. Bimba has arranged for the teams to check the status of their orders on their website. The process is quite simple.

- Go to www.bimba.com
- On the home page screen, there is a link to the tracking portion of the website. It is labeled "Order Tracking". Click on the wording. You will be brought to a screen asking for your "Customer P/O Number".
- Type in your team number;
- In the other box type in the "ship to zip code" you used on your order and click on find.

All the information is available for you to track your orders. In the event you have a second order for cylinders, your "Customer P/O Number" will be your team number followed by the letter "A". For subsequent orders, we will use your team number followed by the letter "B" etc. The Bimba part number is broken down in the following way:

- The first two digits are the bore size. $\frac{3}{4}$ " = 04, $1\frac{1}{2}$ " = 17, and 2" = 31;
- The next digit or two represents the stroke;
- The final two or three letters represent the model number.

The following are a few examples of some of the part numbers:

| <u>Number</u> | <u>Description</u> |
|---------------|-------------------------------------|
| 048DP | $\frac{3}{4}$ " bore by 8 " stroke |
| 1712DP | $1\frac{1}{2}$ " bore by 12" stroke |
| 315DXP | 2" bore by 5" stroke |

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| <u>FIELD / CORRECTIONS</u> |
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There are none for this update.

AUTODESK

Nothing for this update.

ADMINISTRATIVE/MATERIAL HANDLING/SHIPPING

PAGE 9, SECTION 4.6

This went out in an e-mail blast to all teams on Wednesday, 1/22/2003, and is repeated here as a courtesy.

Greetings Teams!

We want to remind you to update your Team Social attendance numbers via the Team Information Management System, at my.usfirst.org (Step 2 of 6.) If you have already entered this information please take a moment to go back and check your entry to make sure it is accurate.

Over the next couple of weeks we will be assessing which events will be designated as Streamlined (NO Team Social) and plan to make the listing available prior to February 7th on our website.

Please contact team support and frcteams@usfirst.org if you have any questions.

PAGE 9, SECTION 4.6.2

Please change the date in section 4.6.2, "Deadline for Attendance Count" tono later than February 21, 2003.