

2004 FIRST Robotics Competition

January 27, 2004

Team Update

05

→ Special Notices ←

Documents and Updates

FIRST will provide important information to teams via the FIRST web site at:

http://www.usfirst.org/robotics/doc_updt.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 2004 FIRST Robotics Competition.

Our schedule to publish Team Updates is:

- Tuesday by 5PM and Friday by 10AM. We work hard to meet these commitments. Unexpected circumstances may, on occasions, delay their publication.
- Additional updates may be released if required.

Question & Answer System

The Question & Answer System can be found at:

<http://www.usfirst.org/robotics/2004/qa.htm>

1. Please ask one question at a time.
2. Questions are limited to 240 characters.

The Manual

Information that has been documented in Team Updates 01, 02, 03, and 04 has been incorporated into the appropriate manual sections and posted on the FIRST website on Monday, 01/26/2004.

Information that is documented in Team Updates will be incorporated into the appropriate manual sections and is scheduled to happen weekly. After this process has taken place, you will be able to:

- Access .pdf files with “track changes” turned on so that teams can see all changes applied;
- Access .pdf files with all “track changes” **accepted** (incorporated) that would allow teams to access an up-to-date manual.

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Section 1. Introduction

No changes.

Section 2. Communication

No changes.

Section 3. The Arena

No changes.

Section 4. The Game

❖ Clarification.

You will be able to tether to your robot to disconnect from the Pull-up Bar and you will be asked to demonstrate your means of disconnect as part of the robot inspection process.

Section 5. The Robot

❖ Notice.

FIRST will allow you to keep your all of your operator controls (Operator Interface, OI power supply, joysticks, etc.) and not ship it with your robot on Tuesday, 2/24/2004. This will allow you to continue to work on your programming.

If you decide not to ship it with your robot, please **remember to bring it to your 1st competition.** FIRST does not have replacement controls.

❖ Modify R71 as below. The new/modified text is **bolded** and *italicized* and/or ~~lined-out~~.

Additional electronic components for use on the robot must be currently available from or equivalent to those available from Newark InOne (<http://www.newarkinone.com>), Future Active (<http://www.futureactive.com>), Radio Shack (<http://www.radioshack.com>) or Digi-Key Corporation (<http://www.digikey.com>). ***Additional electronic components include any object that conducts electricity other than IFI relays and voltage controllers, wires, connectors and solder.*** The total catalogue value of additional electronic components must not exceed \$200.00 USD. This cost is counted as part of the \$ 3,500 limit. No single electronic component shall have a catalog value of over \$100.00 USD.

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Section 6. The Kit

❖ DISCUSSION ON 13" BALLS

The incredible demand for balls has literally wiped out all available wholesale sources of an equivalent competition ball.

The 13" red Champro PG13 (2-ply rubber, not nylon wound) ball packed in your Kit of Parts is identical to the 13" purple and the 13" yellow balls that FIRST will use at the competitions. We have found the various balls to vary from 1.5 lbs to 1.7 lbs. Other balls that teams find at local retailers may be the same or similar.

FIRST has discovered an issue with the 13" balls that all teams need to know about.

The 13" ball that you received in your kit of parts has the same specifications as the 13" balls you will encounter in the regional competitions. Some of the balls sent by Palos Sports may be slightly different.

This was caused by the fact that the demand for 13" balls wiped out the supply of the exact ball and Palos Sports substituted a ball that was very close. Palos Sports has been informing teams that ordered balls in the last couple of days but teams that ordered last week may not know they have received a substitute. Because these balls are produced in China and other distant lands, replenishment in a timely manner is difficult to impossible.

The substitute ball shipped by Palos Sports is slightly heavier and a bit firmer than the ball that will be used at the regional competitions (and included in your kit). These differences can potentially affect a team in some of the following ways (this is not meant to be all of the potential effects):

- Shooting by the human player - the ball is heavier and firmer;
- Robots pushing balls - robots may ride up on the softer competition ball and not on the firmer ball;
- Robot mechanisms that pick up balls - the difference in firmness could affect these mechanisms.

❖ Notice from Skyway regarding wheels.

Skyway Wheels has received numerous requests for large diameter wheels with keyway drive hubs similar to the 12.5" wheel assembly in the kit. Because of these requests, Skyway is setting up production for 16", 20" and 24" overall diameter wheel assemblies.

Please be advised that supplies of these wheels are limited and Skyway will be manufacturing these on an as-needed basis, therefore, longer delivery lead times may be required for these items.

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❖ **Source for Anderson power connectors.**

Teams can purchase additional Anderson power connectors from Terminal Supply Co at 800-989-9632, ext. 153. The Terminal supply part number is SY6331G1, which is made up of one plastic housing and a pair of contacts that can be crimped to #6 wire.

Section 7. The Tournament

No changes.

Section 8. The Awards

No changes.

Section 9. Team Organization

No changes.

Section 10. At The Events

❖ **Clarification of section 10.13.1.**

Goggles are not required to be worn over regular glasses **if** the regular glasses are made of polycarbonate / plastic material similar to that in safety glasses **and** safety side shields are attached.