

2005 FIRST Robotics Competition

February 22, 2005	Team Update	13
-------------------	-------------	----

→ Special Notices ←

Do **NOT** bring your radios to the Playing Fields for your matches. This year we are using **BANKED RADIOS** (our own radios on a stanchion) in preparation for using 24 radio channels at the Championship in Atlanta, GA.

→ General 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 2005 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

Please review answers to questions in the Question & Answer System daily before submitting a new question (see instructions below).

The Question & Answer System can be found at: <http://www.usfirst.org/robotics/2005/qa.htm>

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

<u>Find Q&A Answered After a certain date</u>	<u>Find an Individual Q&A ID</u>
Leave Section set to All	Enter question ID # in the ID field
Set Date to After	Press Update Filter
Enter the appropriate date in the next field	
Leave Search blank	
Set Status to Answered	
Press Update Filter	

2005 FIRST Robotics Competition

February 22, 2005	Team Update	13
-------------------	-------------	----

Section 0 - Introduction

No changes.

Section 1 - Communication

No changes.

Section 2 – Team Organization

No changes.

Section 3 - The Arena

➤ **MODIFICATION of: The Human Player Loading Box**

See Q&A Items of note below, #1715 and #1721.

Section 4 - The Game

➤ **IMPORTANT INFORMATION on: Being in the Loading Zone**

See Q&A Items of note below, #1715 and #1721.

Section 5. The Robot (includes the Kit of Parts)

ROBOT

➤ **INFORMATION on: Robot Inspection**

Remember that the Fix-It window following your robot shipping limits what you can do. Other Fix-It windows have criteria associated with them as well.

As part of the inspection process, teams will be asked to sign the following pledge:

Team Compliance Statement

We, the Team Mentor, Team Captain and Team Inspector, attest by our signing below, that our team's robot was built after the 2005 Kickoff on January 8, 2005 and in accordance with all of the 2005 FRC rules, including all Fix-It Window rules (reference Section 5.3.3). We have conducted our own inspection and determined that our robot satisfies all of the 2005 FRC rules for robot design.

Team Captain: _____

2005 FIRST Robotics Competition

February 22, 2005	Team Update	13
-------------------	-------------	----

Team Inspector: _____

Team Mentor: _____

➤ **PROTECT your: Kit Transmission**

Please remember to lubricate your transmission to prolong its life... not to mention that it runs much quieter.

KIT

➤ **MORE INFORMATION on: Fisher-Price motors**

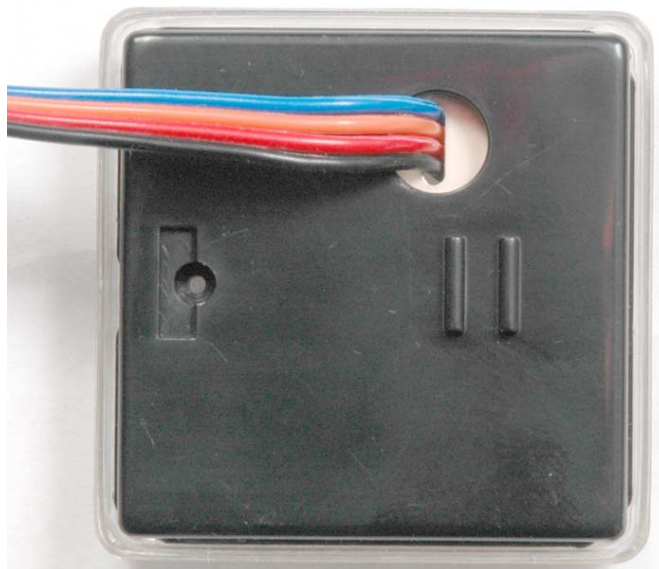
The 2003 Fisher-Price motor can be used in 2005.

The 2003 F-P motor is a Mabuchi, while the 2004 motor was made by Johnson Electric. Both motors had the same 19-tooth pinion on them. However, the two motors' performance data are slightly different:

- The Mabuchi is rated at 150W peak power. Stall torque is 0.383N-m.
- The Johnson is rated at 164W peak power. Stall torque is 0.400 N-m.

Compared to the 2005 Mabuchi motor (at 12V), the above motors are not as powerful as it is (407W peak), whereas the 2005 motor at 6V is rated at 102W peak.

➤ **PICTURE of an: LED robot light (back)**



2005 FIRST Robotics Competition

February 22, 2005	Team Update	13
-------------------	-------------	----

Section 6 – Robot Transportation

No changes.

Section 7 – At the Events

No changes.

Section 8 – The Tournament

➤ IMPORTANT INFORMATION on: Match scheduling

In the game of Triple Play, because there are 6 teams on the field at once, the scheduling of matches is significantly more difficult. In addition, in previous years we have noticed that there have been cases where a team may not be on the field with one team at all, but encounter another multiple times. In order to maximize your exposure to other teams, we have implemented a new match-scheduling algorithm. While this algorithm has significantly improved performance, it does allow some matches to be scheduled relatively close together. There may be cases where your team has a match that is 12 minutes after the end your previous match. Please make sure your robot and drivers can be ready to play in this time interval. Although 12 minutes may seem like a short time, if you are fortunate enough to make it to the finals, you will have only 4 minutes to be ready to play again. Also note that 12 minutes is a minimum. In general your recovery time between matches will be much longer.

Section 9 – The Awards

No changes.

Section 10 - Scholarships

No changes.

FIRST Guidelines, Tips & Good Practices

No changes.

2005 FIRST Robotics Competition

February 22, 2005	Team Update	13
-------------------	-------------	----

E-Mail Blasts Sent Since Last Update

2/18/2005

Several of the Regional "Site Info" sections on the web have been updated since first being posted. We have identified these in the Team Updates accordingly. Please note there may be additional edits to "Site Info", so please read your Team Updates carefully!

Some regionals also have Pre-Order Lunch forms that need to be filled out and submitted by the due dates given. These are found in the "Site Info" sections. You will want to make sure you have checked through your regional's "Site Info" carefully for these forms.

All "Site Info" documents are found under your regional's listing at:

<http://www.usfirst.org/robotics/2005/rgevents.htm>

Please contact us at frcteams@usfirst.org if you have any questions.

Question & Answer Items of Note

➤ ADDITIONAL INFORMATION on: Q&A #1715 and #1721

Text from #1715

Yes. After attending and receiving feedback from several scrimmages this past weekend (2/19), we will allow robot-base appendages that are within and remain within the 28" x 38" dimensions to contact the loading zone and be legal.

Text from #1721

Yes, however, it is important that it be clearly visible to the referees in order to avoid receiving a penalty.

During the various scrimmages last weekend, it became clear that robots were having difficulty getting in the loading zones and receiving and retrieving tetras without drawing penalties. In order to make this more reasonable for teams, we have decided to broaden the interpretation of the concept of the robot base, as mentioned in Q&A 978 and 1617. **The referees will consider any item contacting the loading zone triangle, that is clearly visible and within the original 28" x 38" starting footprint, as part of the robot base.** It is very important, however, that it be clearly visible to a referee standing 5 or 10 feet away. An encoder wheel or caster that is under the chassis may not be visible,

2005 FIRST Robotics Competition

February 22, 2005	Team Update	13
--------------------------	--------------------	-----------

and as a result, may not prevent the team from receiving a penalty.

In addition, FIRST has decided to make the Human Player loading box larger in order to give the Human Player more room to avoid robot arms or appendages while they are loading the robot. This “box” will now be a triangle 48” on a side. Human Players are encouraged to wear helmets if their robot presents an arm or appendage that overhangs the outside of the field while it is receiving a tetra.

Finally, Human Players should use the following sequence when loading a tetra in order to avoid a penalty according to rule <G27>:

- 1) Step into the loading box. To be in the box, part of both feet must on or over the box border.
- 2) Load the tetra on the robot.
- 3) Clearly and decisively remove your hands from the tetra.
- 4) Step out of the loading box.

Other Items of Note

➤ **NEW SITE INFORMATION for: Several locations**

Sacramento Regional – Lunch pre-ordering opportunity

- Now includes the order forms for pre-ordering lunches

New York City Regional – Crate arrival

- The crate arrival deadline has changed.

Philadelphia Regional - Lunch pre-ordering opportunity

- There is updated information regarding a lunch pre-ordering opportunity.

Pittsburgh Regional - Lunch pre-ordering opportunity

- There is updated information regarding a lunch pre-ordering opportunity.

Colorado Regional - Lunch pre-ordering opportunity

- There is updated information regarding a lunch pre-ordering opportunity.

For the links to all events, go to:

<http://www.usfirst.org/robotics/2005/rgevents.htm>

Teams attending these events should print and distribute the section to team members.