

2005 FIRST Robotics Competition

February 11, 2005	Team Update	10
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→ Special Notices ←

Read very important information regarding FISHER-PRICE motors and gearboxes in the ROBOT section below.

→ 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 11, 2005	Team Update	10
--------------------------	--------------------	-----------

Section 0 - Introduction

No changes.

Section 1 - Communication

No changes.

Section 2 – Team Organization

No changes.

Section 3 - The Arena

No changes.

Section 4 - The Game

➤ **ADD NEW RULE: G29**

<G29> Human Players must remain on their human player mats during the autonomous period. An Alliance that violates this rule will be assessed a 30-point penalty.

2005 FIRST Robotics Competition

February 11, 2005	Team Update	10
-------------------	-------------	----

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

ROBOT

FIRST has discovered, with our teams' assistance, problems associated with the 2005 Fisher-Price motor and gearbox. FIRST apologizes for what has occurred this year.

BACKGROUND

Historically, Teams received 2 Fisher-Price gearboxes with an attached 12V motor. The motors have been consistently 12V models with a pinion gear that meshes with a plastic gear inside the Fisher-Price gearbox. The pinion gear and, subsequently, the gearbox have sometimes been different from year to year, but the motor was always a 12V motor. **For example, the 2004 motor / gearbox was a 12V motor with a 19-tooth pinion gear.**

THIS YEAR... 2005

Fisher-Price, a very large supporter of and donor to FIRST, inadvertently **shipped a 6V motor, which had a 13-tooth pinion, and the associated gearbox for this motor.** All of us were under the assumption that this motor was a 12V motor and, only after teams responded with questions about the motor's performance, were we able to investigate the problem and determine the cause of lower performance. Please be aware that stalling the motor will damage it and probably the transmission too because of the high torque it is delivering to the transmission's gears when at the stall condition.

WHAT ARE YOUR OPTIONS?

NOW

1. If you are using this year's motor and it still works, be careful! Protect it from damage. This can be done by avoiding stalling the motor, using 20 Amp circuit breakers, and/or limiting the effective motor voltage to 6 Volts (by restricting the PWM values sent to the speed controller).
2. If you have "fried" this year's motor and would like a replacement, send it to FIRST, c/o FRC Parts. We will send you a replacement 6V motor.
3. If you have last year's motor and gearbox, you may use it.
4. You can check Chief Delphi's swap area to potentially acquire one of last year's motors. Go to:

www.chiefdelphi.com/forums/parts.php?

5. You can check with a Fisher-Price service center. To locate a service center **online**, use this link and type in your zip code:

http://www.service.mattel.com/us/powerwheels_info.asp

2005 FIRST Robotics Competition

February 11, 2005	Team Update	10
-------------------	-------------	----

To locate service centers by phone, call Fisher-Price at 800-348-0751, press 1 for English, and then press 3, which will provide a menu of service center location choices.

For the 2004 motor and transmission, ask for:

19 tooth Jeep Gearbox

For just the 2004 motor, ask for:

Part # 009689003 (this motor will only mount to the 2004 gearbox).

AT THE EVENTS

Various options outlined below will be available on an EXCHANGE basis. Because quantities are limited, teams are encouraged to take all precautions so as not to “fry” motors, i.e., we will not repeatedly replace the same motor.

1. FIRST will have the 2005 motor/gearbox (6V and 13-tooth pinion) available on an EXCHANGE BASIS, i.e., you may get a replacement by turning in the old motor/gearbox.
2. We will have the 2004 motor/gearbox (12V and 19-tooth pinion) available on an EXCHANGE BASIS, i.e., you may get a replacement by turning in the old motor/gearbox.
3. We will have 12V motors (that are very close to the 2004 motor power but are not an exact match) with a 13-tooth pinion available on an EXCHANGE BASIS, i.e., you may get a replacement by turning in the 2005-6V motor. The motor you are turning in can be “fried” **OR** in perfect working order. This replacement motor will fit the 2005 gearbox.

FIRST and Fisher-Price are doing everything we can to rectify the situation at hand with these motors. We appreciate your understanding and cooperation with this issue. FIRST is very thankful to have suppliers such as Fisher-Price who are committed to FIRST’s mission and make these resources available for all teams.

2005 FIRST Robotics Competition

February 11, 2005	Team Update	10
-------------------	-------------	----

KIT

➤ CLARIFICATION on: Solenoid valves in the kit

The double solenoid valves in your FIRST Kit were donated by SMC. They are units taken from their production line that are normally intended for 24v operation and marked accordingly, but subsequently reconfigured by SMC for 12v application for FIRST (but not re-marked as such). Although the valve body on these units is marked SY3240-5LOU, you will note that the solenoid coils actually provided in your kit are marked 12v, which is the proper voltage for use on your FIRST robot. The combination of the supplied valve body marked SY3240-5LOU and the 12v coils in reality makes the entire solenoid valve assembly equivalent to a SY3240-6L (12v) part, and not the -5LOU (24v) version.

The Bill of Material information shown in the 2005 FIRST Pneumatic Manual reflects the SY3240-5LOU valve body marking that you actually see when you look at the part provided in your kit. However, if you are trying to purchase additional complete valve assemblies from a SMC distributor, you should use SY3240-6LOU as the appropriate part number to order.

Section 6 – Robot Transportation

No changes.

Section 7 – At the Events

No changes.

Section 8 – The Tournament

No changes.

Section 9 – The Awards

No changes.

Section 10 - Scholarships

No changes.

FIRST Guidelines, Tips & Good Practices

No changes.

2005 FIRST Robotics Competition

February 11, 2005	Team Update	10
-------------------	-------------	----

E-Mail Blasts Sent Since Last Update

2/9/2005

We want to remind you that the Awards Deadline Dates are fast approaching! Please review key dates below. Full details on all awards can be found at:

http://www2.usfirst.org/2005comp/Section_9_The_Awards.pdf

Chairman's Award

This is an on-line submission at www.firstawards.org

Deadline Feb 19, 2005, 12:01 am EST

Woodie Flowers Award Essays

This is an on-line submission at www.firstawards.org

Feb 19, 2005 12:01 am EST

Autodesk Visualization Award (AVA) - Note: 2 (two) different AVA deadlines

Paperwork Deadline:

Due at Autodesk by Feb 14, 2005

Animation and Storyboard

Due at Autodesk by Feb 22, 2005, no later than 8:00 am PST

Autodesk Inventor Award

Due at Autodesk by Mar 7, 2005 5 pm PST

Website Award

This is an on-line submission at www.firstawards.org

Please Note: In order to be considered for the Website Award, teams **must** enter their URL for consideration at www.firstawards.org no later than Feb 19, 2005 12:01 am EST

We look forward to receiving all submissions.

Question & Answer Items of Note

There are none.

Other Items of Note

There are none.