

2005 FIRST Robotics Competition

February 1, 2005

Team Update

07

→ Special Notices ←

There are no -> Special Notices <- for this update.

→ 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	

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Section 0 - Introduction

No changes.

Section 1 - Communication

No changes.

Section 2 – Team Organization

No changes.

Section 3 - The Arena

➤ MODIFICATION to: Center goal

A plate has been added to the underside of the center goal. It is ¼" aluminum and spans the entire underside of the goal base. It will be totally covered with Velcro to improve stability. Drawings will be revised.

➤ DIRECTIONS to: Hanging tetra magnet assembly

The hanging tetra magnet assembly is found on the 2005 FIRST Robotics Competition Game Field Elements Tetra Assembly drawing. The assembly for the hanging tetra magnet on the "goal" is the same as the tetra.

Section 4 - The Game

No changes.

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

ROBOT

➤ INFORMATION on: Using PWM Output 13 - 16

The PWM outputs 1 - 12 are handled by the Master microprocessor. PWM outputs 13 - 16 are generated via the user code. All four of these PWMs get generated within 2ms at a 26.2 ms rate. These PWMs are susceptible to interrupt interference. PWM signals have 255 steps and each step is ~5us. Since interrupts have at least a 5us latency, they will stretch a PWM signal up to the amount of time it takes to process the interrupt. So if your user code is processing interrupts at a high rate or your interrupt routines are long, the PWM signals on outputs 13 16 could be modified/stretched to create a forward condition

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on a motor. It is best to use PWM outputs 1-12 first. PWM outputs 13 16 should be avoided if user code is interrupt intensive.

KIT

➤ **CAUTION ADVISED regarding: CMU Camera lens movement**

If your camera lens keeps changing focus (becoming unscrewed or screwed in), we suggest applying Teflon tape to secure the lens from changing positions. Be sure not to block the view of the lens elements with the Teflon tape.

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.

E-Mail Blasts Sent Since Last Update

None.

Question & Answer Items of Note

None.

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Other Items of Note

➤ **NEW SITE INFORMATION for: Finger Lakes, Philadelphia, Pacific Northwest, and Sacramento events**

The Finger Lakes (Rochester, NY), Philadelphia, Pacific Northwest (Portland, OR), and Sacramento events have new/added information in the "Site Info" portion of this event.

Go to:

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

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