

2004 FIRST Robotics Competition

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→ Special Notices ←

There are none.

→ General Notices ←

Important Robot Controller Upgrade Information

Please read the following very carefully to determine if you wish to upgrade your 2004 Full-size Robot Controller before competition.

There are two issues involved, and two updates to perform if you wish to correct the issues.

ISSUE ONE:

In our current Default Code we do not initialize the PWM and Relay outputs at the beginning of Autonomous Mode. Therefore stale PWM and Relay values can be output for the entire Autonomous period. This could cause your robot to be stuck with the last output values calculated from OI joysticks or switch inputs during the Disabled period before a match (i.e. a bumped trim tab). Therefore, if your joysticks were not centered, for example, your robot could be stuck with active PWMs, causing it to drive forward continuously, even if you wrote no Autonomous code.

FIX ONE:

If you wrote your own code, to avoid issue one you must initialize all of your PWM and Relay outputs at the beginning of the User_Autonomous_Code function in user_routines_fast.c. New FRC Default Code has been put online which has an example of this initialization.

Even if you have never modified the Default Code and you are still running the original code that came in your RC, you should obtain the newest Default Code and load FRC_default.hex into your RC to fix this issue.

ISSUE TWO:

During the switch from Disabled to Autonomous Mode at the beginning of a match, there is a brief instant when the PWM and Relay outputs are enabled before your User processor knows it is in Autonomous mode. Even if you fix issue one, this could still cause your robot to be stuck with the last output values calculated from OI joystick or switch inputs for approximately 75ms. This second issue involves the Master processor's firmware.

FIX TWO:

The solution to the second issue is to download the FRC_MasterV6_Upgrade.zip package

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from Innovation First. Following the instructions inside, you will be able to upgrade the firmware inside the Master processor. After the upgrade there will no longer be an in-between period when switching from Disabled to Autonomous. You will also be required to re-load your User code after performing the upgrade.

CONCLUSION:

Performing these two upgrades is not required, and these upgrades will have no negative impact on the operation of your User code. They will, however, improve the predictability of your robot at the beginning of a match. Even if you have made no changes to your Robot Controller's Default Code, you are encouraged to perform these upgrades.

Both FRC_MasterV6_Upgrade.zip and the latest FRC Default Code can be downloaded from:

<http://www.innovationfirst.com/FIRSTrobotics/documentation.htm>

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.

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The Manual

No changes.

Section 1. Introduction

No changes.

Section 2. Communication

No changes.

Section 3. The Arena

No changes.

Section 4. The Game

Modify G16 as below. The new/modified text is bolded and italicized and/or lined-out.

<G16> **ROBOTS** can only pass the SMALL balls into the Team Zone via the Ball Chute. ~~Once balls have cleared the Ball Corral,~~ Any team member may *handle* *or* pass SMALL balls to either HUMAN PLAYER on their alliance.

Section 5. The Robot

No changes.

Section 6. The Kit

No changes.

Section 7. The Tournament

No changes.

Section 8. The Awards

No changes.

Section 9. Team Organization

No changes.

Section 10. At The Events

No changes.