



## Senior Mentor Report January 4, 2010

Hi Everyone,

Happy New Year! I hope all of you had a great holiday and that you are ready for Kickoff 2010. Ship day will be here before we know it.

This is my 10<sup>th</sup> season and I have enjoyed all of them. All of the kickoffs, the strategy and brainstorming, the designs and prototypes that do not quite work as expected, the last minute rush to finish, the competitions, the travel, and the excitement when we find our crate in the pit area of a new city. I some how forget the things that did not get packed, the matches that did not go well, and the temporary disappointment of my students their plans to not come to pass.

Game hint # 1 can be found at <http://www.usfirst.org/roboticsprograms/frc/content.aspx?id=16075>



If you are joining us at USC for the live Kickoff broadcast and Kit pickup it will be in the same location as last year.

1. An adult for each team who is picking your stuff.

2. Bring a dolly or cart to move your things to the parking structure.
3. The broadcast begins promptly at 7:00am so you need to check in before it gets started.
4. Only 4 members per team and one needs to be an adult who can sign for the team kit.
5. We will NOT give out any kits until the broadcast finishes. Everyone is eager to get back to their own schools, and the volunteers at USC have done a wonderful job over the years getting everyone out quickly.
6. The Kickoff will be in Salvatori Computer Science Center (SAL), room 101.
7. Enter USC through gate #5, on Jefferson. Parking will cost \$8 per car.
8. Kit distribution after the broadcast will be out of Tutor Hall (RTH), like last year.



### Don't forget to check in your Kit of Parts!

See the Competition Manual for details. This is your only way to correct a situation of missing items. The photos are very helpful. Work with only one box at a time, and do not let the kids move the stuff until everything is checked.

### Replacement Parts Request Procedure

After receiving and checking all items in your Kit of Parts (KOP), should you determine you are missing a part(s), or need a replacement part(s) you must use the FIRST "Replacement Parts Request" system to order replacements.

Parts requests will be handled through this online system only.

The Replacement Parts Request system will be accessible via the [Team Information Management System \(TIMS\)](#) at noon (Eastern Time) on Saturday, January 9 until January 13, 2010.

To begin the process of submitting a Replacement Parts Request, team Main or Alternate contacts will:

- Log into TIMS
- On the right side of the Team Summary page, under the "What's New" header, click on the link to "Submit a Replacement Parts Request HERE"
- Follow TIMS instructions to complete a Replacement Parts Request

**VERY IMPORTANT - PLEASE READ CAREFULLY!!**

This is a "one time only" opportunity to submit a Replacement Parts Request. Please make sure your request is both accurate and complete prior to pressing the "Confirm Request" button.

Once the request is submitted and confirmed there can be no changes to it.

Replacement Parts Requests will be processed and shipped to teams in a timely manner. Please make sure your Shipping Contact information is accurate and complete in TIMS as this is to whom the parts will be shipped.

Please note the system will not allow teams to request a quantity of parts higher than the number originally sent with the KOP. This system is also not to be used to order additional or purchased parts.

**Deadline Date and Time**

All requests must be placed by 11:59 pm (Eastern Time) on Wednesday, January 13, 2010.

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**Event Payment**



**Do not forget that payment for a second regional is due to FIRST by January 15, 2010.**

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**The Control System**

***For teams that feel up to the task of doing the configuration without help, the Beachbots offer the following suggestions:***

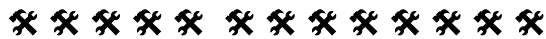
- 1) Configure your system early – It takes several hours, so you do NOT want to be frantically trying to complete the process in Week 6 when your mechanical team finally has the robot drivable. This is a critical task so it is worth assigning somebody to make it happen early. The directions in section 1.6 of the manual take you through configuring the control system in a "bench top" configuration.
- 2) Follow the **WRITTEN** directions exactly – The videos are great and give an overview of the process, but are designed to show the minimum needed for that specific example, and do not

show the entire process for configuring your control system. The written instructions are much easier to fix and have been corrected where needed. If there is a conflict, follow the written instructions

- 3) DO NOT skip steps – This is how most teams get into trouble
- 4) DO NOT do EXTRA steps – The directions may tell you to do, for example, “steps 1-6 in Section 5” If Section 5 has a step 7, do not do it at this point. If it is something you need to do, you will be told to go back to it later. Instead go back to the point in the manual where you were told to go to Section 5 and continue from there.
- 5) The instructions can sometimes be confusing so take care and be sure you understand **what** you are being asked to do before you do it. Do not worry about the **why** at this point. As the control system uses many COTS networking components, there are thousands of possible configurations, and many will work. However, as good engineering practice, you should configure the system as documented, first. If you have networking experts on your team, don't let them change anything until after you've completed the initial setup and tests, and be sure they change it back when you get to competition.
- 6) **DO NOT** turn off your cRIO or Driver Station or otherwise interrupt during the imaging or firmware update process. It is possible to recover from a problem while imaging the cRIO (but will take extra time). It is not possible for teams to recover from some failures in Driver Station imaging, and if the problem is team induced, it is not covered under warranty.
- 7) If you are using the camera, be sure the mounting stud and the metal shield on the back are electrically isolated from the robot frame. Failure to do so can result in damage to your control system. Read section 3 of the manual for many more tips.
- 8) Allow plenty of weight and room for the new system – The cRIO is larger and heavier than the IFI system used in previous years. That means your electronics mounting areas will have to be larger than in previous years. Be sure to include space for the control system in your robot design.
- 9) Relax – If you start early and follow the directions carefully everything should go fine. Hundreds of teams have already done so without problems, you can too. If something does go wrong, help is available via the FIRST forum, Chief Delphi, and the NI FIRST community.
- 10) Do not start trying to program the control system until instructed to

do so in the benchtop test instructions.

See <http://www.chiefdelphi.com/forums/s/howpost.php?p=784259&postcount=1> for more tips.

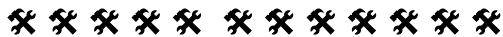


### 2010 FIRST Consent and Release Form

(Needed prior to all competition participation by all team members.) We also want to let you know the 2009-2010 Consent and Release form is now posted at: For full details about the FIRST Student Team Members and Parent/Legal Guardians Information System/Electronic Consent and Release Form please visit

<http://usfirst.org/roboticsprograms/frc/content.aspx?id=8128> . If you have any questions regarding this new system, do not hesitate to contact us at

[frcteammembers@usfirst.org](mailto:frcteammembers@usfirst.org)



### FIRST Scholarships

Yes I know we have just started building the robots but when there is some down time remind the students and their parents to check out the 2010 FIRST Scholarships at

[www.usfirst.org/scholarships](http://www.usfirst.org/scholarships)

In 2010, the FIRST Scholarship Program provides:

Over \$11 million in college scholarships  
Over 545 individual scholarship opportunities

Over 115 Scholarship Providers

[www.usfirst.org/scholarshipsearch.aspx](http://www.usfirst.org/scholarshipsearch.aspx)



### Ideas for securing funds

#### ✓ HEXBUG Fundraising

We know one of the biggest obstacles facing many schools and teams trying to participate in high end technology competitions is the financial cost and required fundraising. HEXBUG provides students with something new, interesting and different from typical fundraisers and will give your students a fun and exciting product to offer. We want your fundraising efforts to be successful and hope the innovative and fun HEXBUG will help your team achieve its goals. We wish you and your team all the best for the upcoming season.

- ✓ Also do not forget that all of those bottles add up during build session lunches and dinners. Recycle!
- ✓ Contact a local restaurant and book a date where you can bring in families, friends and neighbors for dinner and get a % of the meals served. My team did this for a service project that we are working on and the manager told us they have never had so many people show up. (We ran them out of clean silverware.)



Pre-Ship Scrimmage,  
Sunday, February 21, 2010.  
More information to follow soon.

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**FTC**



13 local teams competed on  
December 12, 2009. For additional  
information please contact  
Suparna Mukherjee at  
[suparna.mukherjee@jpl.nasa.gov](mailto:suparna.mukherjee@jpl.nasa.gov)

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**Calling All Team Mentors:**

All mentors can be recognized by  
FIRST if they are listed in TIMS. The  
team lead contact will have more  
information for you.

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**Volunteers for FIRST Events can  
register in VIMS.**

If you know of anyone who would be  
interested in volunteering for our  
regional events they need to register in  
the FIRST Volunteer System at  
[https://my.usfirst.org/vims/logon.lasso?  
page=logon](https://my.usfirst.org/vims/logon.lasso?page=logon)

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Vex World Championship Dallas, TX  
April 22-24, 2010.

Ralph Mills will be your best source  
for information. [ralphmills@aol.com](mailto:ralphmills@aol.com)

You can also find additional  
information at [www.robotevents.com](http://www.robotevents.com)

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**Upcoming Events  
Spring 2010**

- Chairman's Woodie Flower's and Website Award submissions due February 18, 2010.
- Annual Robot Blessing Cathedral of Our Lady of the Angeles Sunday, February 21, 2010 9:00am (*Not a FIRST event.*)
- L A Pre Ship Scrimmage Sunday, February 21, 2010 Harvey Mudd College.
- San Diego Regional FRC March 4-6, 2010
- FRC Los Angeles Regional Long Beach Convention Center March 25-27, 2010
- Hawaii Regional Stan Sheriff Center March 25-27, 2010
- *FIRST* Championship Event Georgia Dome Atlanta Georgia April 15-17, 2010



**If you have news that I can  
share with the *FIRST* teams you  
are welcome and encouraged to  
send it to me.**

**If you would like to write on a  
particular topic I am happy to  
provide space in this newsletter.**

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**Reminder # 1:** Have you printed and read the sections of the 2010 competition manual? Sections 0 – 5 are already up.

**Reminder # 2** Get your Inventory completed and report any problems immediately! Last day is January 13<sup>th</sup>.

**Reminder #3** Don't forget to order your bumper material as it takes a week.

**Reminder # 4:** Ship date is Tuesday, February 23, 2010.

*"What is not started today is never finished tomorrow." - Johann Wolfgang von Goethe*

-Nancy McIntyre  
FIRST Senior Mentor- Los Angeles  
[nmcintyre@chaminade.org](mailto:nmcintyre@chaminade.org)