January 12, 2010

TEAM UPDATE #1

GENERAL NOTICES

Mandatory Driver Station file:

There is a file required for the Driver Station software that was not on the original image loaded on the Classmates (the requirement for the file was added after the kit Classmates were imaged). Teams can expect an error message reporting the missing file "nicyapi.dll," which is required to run the Driver Station software.

The file, and more information, can be found online at http://decibel.ni.com/content/docs/DOC-8891. Be sure to save it to the c:\windows\system32 directory, and good luck!

Section 0 - Introduction

No changes.

Section 1 - Communication

No changes.

Section 2 – Team Organization

No changes.

Section 3 – At the Events

No changes.

Section 4 – Robot Transportation

Section 4, Rev A incorporates the following edits:

4.8.2 General Rules For Bagging Your Robot

Every team must abide by ROBOT SHIP DAY regardless of whether they are attending a traditional Regional Event OR Bag and Tag event for their first event (see Section 4.2).

Proper bagging procedure:

1. Set the BAG on the floor, leaving room for the robot in the center.
2. Place the robot in the center of the BAG and pull the bag up around the robot. Be careful not to catch the bag on any corners or sharp edges.
3. Tightly seal the BAG with your next numbered TAG.

4. Complete ~~An independent third party MUST fill out~~ the ~~next available line on your~~ *Robot Lock-Up Form* as required in ***Section 4.8.4*** to verify the date and time that the BAG was sealed. ~~Make sure that you complete every item on the line – especially the TAG serial number. Robot lock-up form will be available on the Robot Shipping page of the *FIRST* website at http://www.usfirst.org/roboticsprograms/frc/content.aspx?id=3570.~~

8.4.2.1 Your first event is a Bag and Tag event

If the first event your team will attend for the season is a Bag and Tag event, follow this procedure:

1. Bag and Tag your robot on ROBOT SHIP DAY, and complete the *Robot Lock-Up Form*
2. Transport your robot to your event venue in your own vehicle. If you plan to transport your robot in a personal vehicle, please ensure that you have adequate means to secure the robot. If the robot is being transported in open air, such as in the back of a pickup, be very careful to shield the BAG from excessive wind. Wind can cause the BAG to flap against the robot, causing damage to the BAG.
3. You must carry your own robot into the event sealed in the BAG. Teams will not have access to the loading docks or forklifts; we recommend bringing a rolling cart or dolly to facilitate load in.
4. You may NOT open your BAG until it has been checked and signed off. Upon check-in at Pit Admin, ask for the person in charge of checking Robot Lock Up Forms. **YOU MUST HAVE YOUR ROBOT LOCK-UP FORM READY FOR REVIEW AT THE EVENT. DO NOT FORGET TO BRING IT.**
5. After your Robot Lock-Up Form has been properly filled out to reflect the open time and date, your team may open the BAG and prepare to compete.
6. After the event, if your waitlisted or will be attending another event, re-seal your robot in the BAG with a new TAG and fill out the Robot Lock-Up Form.
7. Remove your robot from the event through the front door or designated exit.
8. **IF** you are attending a traditional Regional Event or the Championship next:
    a. Crate your robot (in the bag). FedEx and Shepard Exposition Services will not pick up a robot that is not in a crate. See Section 4.6 for crate construction requirements.
    b. Ship it to the drayage location for your Regional Event following the instructions in Sections 4.5 and 4.6.
    c. **All robots going to a second event must be shipped by the Tuesday following the Bag and Tag event.** For example, a team attending the Greater Kansas City Regional March 4-6 must ship to their next event by March 9.
    d. FedEx Freight requires prior notice for pickups, especially if your location does not have a loading dock. If you plan to ship after a Bag and Tag event, you must call one (1) week ahead to schedule your pickup.
    e. DO NOT open your BAG at the next event until it has been checked and signed off by the appropriate person at that event.

8.4.2.2 Your Second Event is a Bag and Tag Event

If your first event is a traditional Regional Event, and then you will attend a Bag and

Tag event, follow this procedure:

1. Follow standard Robot Shipping procedures on ROBOT SHIP DAY.
2. At the end of your first Regional Event, bag your robot per the bagging procedure outlined above **before** packing in your crate. Make sure to fill out your *Robot Lock Up Form*. Crate your robot for shipment.
3. Ship your robot to your home location through the drayage system.
4. Before your Bag and Tag event, remove your robot from the crate, and transport to your event venue in your own vehicle. If you plan to transport your robot in a personal vehicle, please ensure that you have adequate means to secure the robot. If the robot is being transported in open air, such as in the back of a pickup, be very careful to shield the BAG from excessive wind. Wind can cause the BAG to flap against the robot, causing damage to the BAG.
5. You must carry your own robot into the event sealed in the BAG. Teams will not have access to the loading docks or forklifts, so we recommend bringing a rolling cart or dolly to facilitate load in.
6. You may not open your BAG until it has been checked and signed off. Upon check-in at Pit Admin, ask for the person in charge of checking Robot Lock Up Forms. **YOU MUST HAVE YOUR ROBOT LOCK-UP FORM READY FOR REVIEW AT THE EVENT. DO NOT FORGET TO BRING IT.**
7. After your Robot Lock Up Form has been properly filled out to reflect the open time and date, your team may open the BAG and prepare to compete.
8. After the event, if you're waitlisted or will be attending another event, re-seal your robot in the BAG with a new TAG and fill out the Robot Lock-Up Form.
9. Remove your robot from the event through the front door or designated exit.

4.8.3 Teams Attending 2-Day Events

Two-day events for the 2010 season include Pittsburgh, Sacramento, and all Michigan District Events. Teams attending these events will not have as much time to work on their robots at events as teams attending traditional 3-day events. Because of this difference, these teams are granted an additional 'Robot Access Period' to unbag their robot between robot ship day and their 2-day events.

4.8.3.1 'Robot Access Period' – Permitted Actions

During the Robot Access Period, teams may perform any activity they would normally do during the build season, including practicing with the robot.

4.8.3.2 'Robot Access Period' - Schedule

Teams may unlock their robot for a total of 6 hours during the 7-day period preceding any two-day event in which their team will be competing with their robot. The 6 hours may be broken up in any way the team wishes, with the exception that no single access period may be shorter than two hours. The robot must be locked up in between sessions and this must be documented on the *Robot Lock-Up Form* each time.

4.8.4 Robot Lock and Unlock Instructions

4.8.4.1 Completing the *Robot Lock-Up Form*

The *Robot Lock-up Form* is available on the Robot Shipping page of the *FIRST* website at http://www.usfirst.org/roboticsprograms/frc/content.aspx?id=3570 Make sure that you complete every item on the line. **Incomplete forms will be rejected by inspectors at events**. The *Robot Lock-Up Form* must be filled in by an adult, 18 years or older, who is not a student on the team. By signing this form the signor attests to the fact that he/she is 18 years old or older, is not a student member of the team, and that all rules a regulations regarding access periods and lock or unlock are being followed. Phone numbers are required for verification in case inspectors at events have questions regarding the form.

4.8.4.2 When the *Robot Lock-Up Form* must be used

The *Robot Lock-Up Form* must be filled in during the periods indicated in ***Sections 4.8.2*** and ***4.8.3.*** The forms also apply when the robot is being locked up *and* when it is being unlocked. Robots do not need to be locked up during the regular build season before ROBOT SHIP DAY.

Section 5 – The Awards

No changes.

Section 6 – The Arena

Section 6, Rev A incorporates the following edits:

6.3.1 BALLS

While playing Breakaway, ROBOTS manipulate BALLS to accomplish the objectives of the game. Each BALL is a standard Size 5 soccer ball. The BALL weighs between 14 and 16 ounces, has a circumference of 27 to 28 inches, and is inflated to a standard pressure of approximately 9psi. The specific ball that will be used in the official 2010 Breakaway competition events will be the "HS300, Size 5, Pearl White" ball from DTSI Sports, Inc. (however, it is not a requirement that teams use this exact model for development or practice). Note that surface color and finish of BALLS may be different than the "normal" black and white patchwork pattern found on competition soccer balls.

Section 7 – The Game

Section 7, Rev A incorporates the following edits:

<G08> ROBOT Starting Positions – Prior to the MATCH, each TEAM negotiates within their ALLIANCE to select one of the three starting areas for their ALLIANCE.

When the FIELD is viewed from the ALLIANCE STATION, the ROBOTS must be placed on the right side of the CENTER LINE ~~Each ALLIANCE must be positioned, on the right hand side of the field when you~~ in one of the following starting positions:

- In the far ZONE and in contact with the ALLIANCE STATION WALL and/or ramp.
- In the MIDFIELD and in contact with the farthest BUMP.
- In the near ZONE and in contact with the nearest BUMP.

DOGMA

The ***DOGMA*** paper originally posted was inadvertently an earlier version. The correct version has now been posted as Rev A. Most of the differences were editorial, however the new revision also clarifies that the timer formula only applies to other balls already in the Alliance Station at the time that the formula is applied. We apologize for any inconvenience!

Section 8 – The Robot

Section 8, Rev A incorporates the following edits:

<R68> All outputs from sensors, custom circuits and additional electronics shall connect to only the following:

A. other custom circuits, or
B. additional COTS electronics, or
C. input ports on the Digital Sidecar, or
D. input ports on the Analog Breakout, or
E. the RS-232 DB-9 serial port on the cRIO-FRC, or
F. the Ethernet bus connected to Port 2 of the cRIO-FRC, or
G. the CAN-bus if and only if all Jaguar speed controllers on the CAN-bus are wired in full compliance with Rule <R63> and Rule <R64>, or
H. the sensor inputs on the Jaguar speed controller.

Section 9 – The Tournament

Section 9, Rev A incorporates the following edits:

9.3.4 Match Seeding Points

All teams on the winning ALLIANCE will receive a number of seeding points equal to the penalized score (the score with any assessed penalties) of the winning ALLIANCE.

All teams on the losing ALLIANCE will receive a number of seeding points equal to un-penalized score (the score without any assessed penalties) of the winning ALLIANCE.

In the case of a tie, all participating teams will receive a number of ~~ranking~~ seeding points equal to their ALLIANCE score (with any assessed penalties).

9.3.7 Seeding Score

The total number of seeding points (Match Seeding Points plus Coopertition Bonuses) earned by a TEAM throughout their qualification matches will be their seeding score.

Section 10 – The Kit of Parts

No changes.