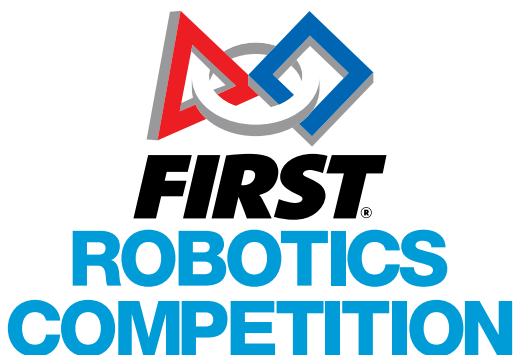


# 5

# Robot Packaging and Transportation

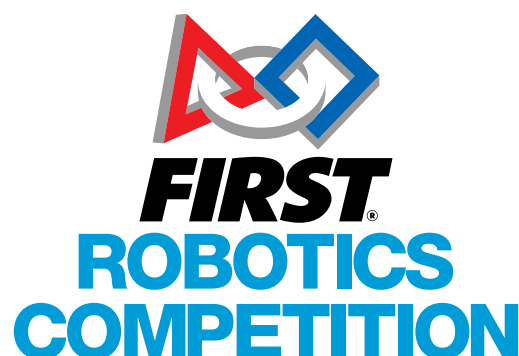
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# Robot Packaging and Transportation

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## 5 ROBOT PACKAGING AND TRANSPORTATION

The following guidelines will ensure that your robot is packaged and documented correctly and arrives where it needs to be on time so that your team can focus on the most important thing – participating in the event!

### 5.1 Stop Build Day

**All teams must cease work on their robot on or before Stop Build Day.** Any team that fails to comply may jeopardize their participation in the rest of the *FIRST* Robotics Competition season. Note that “Stop Build Day” is a specific date. You may work on your robot until midnight local time on Stop Build Day.

*STOP BUILD DAY IS TUESDAY, FEBRUARY 23, 2016*

### 5.2 Bag and Tag and Robot Transport to Regional/District Events

All teams must “Bag and Tag” their robots. Teams are also required to transport their bagged and tagged robot to their competition event(s).

When transporting their robot, teams may use any transportation method they wish (at their own risk and expense), as long as the robot remains sealed in the bag.

You must bring your own bagged, tagged and sealed robot into the venue through the designated robot entrance. Teams will **NOT** have access to the loading docks or forklifts; we recommend bringing a rolling cart or dolly to facilitate the load in.

### 5.3 Instructions for “Bag and Tag”

Each team will receive a special “Bag and Tag” kit in January with their Kickoff Kit. The “Bag and Tag” kit will contain:

- Two plastic bags large enough to contain your robot; and
- At least ten tags with individual serial numbers.

#### 5.3.1 The Proper Bagging Procedure:

- Set the bag on the floor, leaving room for the robot in the center.
- 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.
- Tightly seal the bag with your next numbered tag.
- Complete the [Robot Lock-up Form](#) as required in [Section 5.4 Robot Lock and Unlock Instructions](#) to verify the date and time that the bag was sealed.

You may NOT open your bag until:

- It has been checked, approved by an on-site robot inspector, AND
- The pits have officially been opened for robot work. You must have your [Robot Lock-up Form](#) ready for review at the event. DO NOT forget to bring it.

After your [Robot Lock-up Form](#) has been properly checked and approved, your team may open the bag and prepare to compete.

After the event, if you are attending another event, such as the *FIRST* Championship or another Regional or District event, re-seal your robot in the bag with a new tag and enter the new tag number on the [Robot Lock-up Form](#). You may not access your robot again until the next event, unless you are attending a Two-day District event, as explained in [Section 5.5 “Robot Access Period” – For Teams Attending District Events](#).

Remove your robot from the event through the designated exit.

If you are attending the *FIRST* Championship as your next event, or have been granted an Exemption to ship your robot to an additional event, follow the instructions listed in [Section 5.6 Requesting a Robot Transport Exemption](#).

## 5.4 Robot Lock and Unlock Instructions

### 5.4.1 Completing the [Robot Lock-up Form](#)

The [Robot Lock-up Form](#) is available on the home page of the *FIRST* Robotics Competition Manual. Make sure that you complete every item on the form. **INCOMPLETE FORMS WILL BE REJECTED BY ROBOT INSPECTORS AT EVENTS.** The [Robot Lock-up Form](#) must be completed by an adult, 18 years old or older, who is NOT a student on the team.

By signing this form the signatory attests to the fact that he/she is:

- 18 years old or older;
- Not a student member of the team, and
- Making certain all rules and regulations regarding access periods and lock/unlock are being followed. Cell phone numbers are required for verification in case robot inspectors at events have questions regarding the form.

Remember to bring your [Robot Lock-up Form](#) to your event. A missing [Robot Lock-up Form](#) is one of the top reasons teams are delayed in being allowed to un-bag their robots on time at events.

### 5.4.2 When the [Robot Lock-up Form](#) is Required to be Available

The [Robot Lock-up Form](#) MUST be used:

- On “Stop Build Day”;
- During any ‘Robot Access Period’ taken advantage of if you are attending a two-day district event. See [Section 5.5 “Robot Access Period” – For Teams Attending District Events](#) for details. Please note, the ‘Robot Access Period’ only applies to teams attending two-day district events. Teams attending three-day regional events do not have a ‘Robot Access Period’; and/or
- Before you leave an event, if you expect you will/may be attending a later event.
- attending three-day regional events do not have a ‘Robot Access Period’; and/or
- Before you leave an event, if you expect you will/may be attending a later event.

The Robot Lock-up Form DOES NOT need to be used:

- Before “Stop Build Day”;
- During the event; and/or
- After an event, UNLESS you are competing at any later events, including the *FIRST* Championship.

### 5.4.3 Robot Displays

To assist teams with their promotional and community relations activities, robots may be unbagged and operated briefly after “Stop Build Day” for display purposes only.

- The intent of this option is to allow teams to briefly show their robot to their community, sponsors, or potential sponsors after “Stop Build Day”.
  - » Unbagging a robot and putting it on display for many hours (i.e., more than four (4)) at a time would not be considered a “brief” display.
- The [Robot Lock-up Form](#) must be used to track the unbagging and rebagging of the robot during this period. In the “Explanation” column of the form, enter “Robot Display”.
- No activity that could be considered “work on” or “practice with” the robot is allowed.
- Brief displays of robot functions – driving for example – are allowed, but not to the extent that they could be considered practice.
- A good way to avoid turning a robot display period in to a practice session is to have non-drive team members operate the robot, and only for as short a time as necessary to show the robot’s capabilities.
- If you have any questions about the Robot Display option, please email [frcteams@firstinspires.org](mailto:frcteams@firstinspires.org).

## 5.5 “Robot Access Period” – For Teams Attending District Events

Two-day district events for the 2016 season include:

- *FIRST* Chesapeake District (DC, MD, VA)
- *FIRST* in Michigan District (MI)
- Indiana *FIRST* District (IN)
- Mid-Atlantic Robotics District (DE, NJ, Eastern PA)
- New England *FIRST* District (CT, MA, ME, NH, RI, VT)
- North Carolina District (NC)
- Pacific Northwest District (AK, OR, WA)
- Peachtree District (GA)

Teams attending these events will not have as much time to work on their robots at events as teams attending traditional three-day regional events. Due to this, teams are granted an additional “Robot Access Period” to un-bag their robot between the “Stop Build Day” and their two-day district events.

**Teams attending Traditional Regional Events are NOT granted a “Robot Access Period” after “Stop Build Day.” This section only applies to teams attending district events.**

### 5.5.1 ‘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.

### 5.5.2 'Robot Access Period' - Schedule

Teams may unlock their robot for a total of six (6) hours during the 7-day period preceding any two-day event in which their team will be competing with their robot. The six hours may be broken up in any way the team wishes, with the exception that no single access period may be shorter than two (2) hours. The robot must be locked up in between sessions and this must be documented on the [Robot Lock-up Form](#) each time.

## 5.6 Requesting a Robot Transport Exemption

Not all *FIRST* Robotics Competition teams have the ability to transport their robots to events. While it is our goal to assist as many teams as possible that have demonstrated hardships, due to the increasing number of *FIRST* Robotics Competition teams, we will be taking a much closer look at robot transport exemption requests. To be eligible for a robot transport exemption, a *FIRST* Robotics Competition team must provide detailed information to establish that a substantial hardship exists:

- The team is unable to physically transport the robot to the event itself
- Your team's home location is a great distance from the event you will attend and you do not have the means to transport your robot

And

- The team is unable to pay to transport the robot to the event itself
- Your team faces significant financial challenges that prevent you from paying to transport the robot to the event you will attend

### 5.6.1 Additional Exemption Requirements, Restrictions and Information:

1. Robot Transport Exemptions are for Regional Events only.
  - I. Robot Transport Exemptions to District Events (this includes In-District and Inter-District Events) will NOT be permitted.
2. Robot Transport Exemption requests for teams to attend consecutive weekly events will NOT be granted.
3. Robot Transport Exemption requests will be handled on a case-by-case basis. Not every request will be granted.
4. **Exemptions must be submitted by Friday, December 8, 2015.**
5. Your team may request a Robot Transport Exemption to the Regional in Australia, however your team will not be able to participate in Regional events on the following weeks: 1, 2, 4, or 5.
6. If you request a Robot Transport Exemption, but then do not have a need for it, you **MUST** notify *FIRST* HQ that you no longer require a Robot Transport Exemption. This can be done by emailing [frclogistics@firstinspires.org](mailto:frclogistics@firstinspires.org).

### 5.6.2 How to Request a Robot Transport Exemption:

1. To request a Robot Transport Exemption, you must fill out the "Robot Transport Exemption" form, located [here](#).
2. **Exemption requests must be submitted by Friday, December 8, 2015**



3. *FIRST* HQ will review your request and respond with either “approved” or “denied”
  - II. Teams will be denied a Robot Transport Exemption if it does not appear that your team will experience a substantial hardship from transporting the robot to a regional event.
4. If your team has been approved, you will receive the electronic shipping documents and instructions on shipping your robot to the regional event a few weeks before your event.

### 5.6.3 Denied Robot Transport Exemption Requests:

1. After reviewing the robot transport exemption request, the determination was made that your team will not experience a substantial hardship from transporting the robot to a regional event.
2. *FIRST* will not set up robot storage/drayage for your robot and will not provide FedEx shipping documents.
3. Your team is solely responsible for ALL shipping and robot storage/drayage costs.
4. Your team is solely responsible for locating and coordinating with a local team or business to receive and return your robot crate before and after the regional event.
5. Your team is responsible for tracking the robot shipment to ensure it arrives on time for the regional event.
6. **DO NOT CONTACT THE VENUE.** Robot crates are not allowed to be shipped directly to the venue.

### 5.6.4 Approved Robot Transport Exemption Requests:

1. If an Exemption request is approved, *FIRST* HQ will establish a robot storage/drayage location near the event site.
2. **Only teams that have requested and been granted** a Robot Transport Exemption will be able to make use of the FedEx shipping donation.
3. **DO NOT SHIP ROBOTS DIRECTLY TO THE SITE!** All Robot Transport Exemptions must use the Drayage service that is provided by *FIRST*.
4. **IMPORTANT:** When granted a robot transport exemption, your team will receive a total of two (2) FedEx shipping documents to be used for the current *FIRST* Robotics Competition Season. This includes the *FIRST* Championship.
  - I. Your team may use the FedEx shipping document to:
    - a. Ship robot crate to a Regional Event; or
    - b. Ship robot crate home from a Regional Event; or
    - c. Ship robot crate to the *FIRST* Championship
  - II. **Please note:** If your team uses both FedEx shipping documents to ship the robot crate to and home from a regional event, your team has exhausted the FedEx shipping donation for the current *FIRST* Robotics Competition Season.
    - a. **IMPORTANT:** Your team is responsible for coordinating the robot shipment and paying the shipping charges should you qualify or be invited to the *FIRST* Championship. *FIRST* will NOT provide your team with another FedEx shipping document.

5. **NOTE:** Robots with robot transport exemptions and ALL those attending the *FIRST* Championship must be bagged and tagged with the robot shipped in a shipping crate. Teams may not open the bag until an onsite robot inspector has approved your team to do so.

If you have been granted a Robot Transport Exemption, you can find shipping instructions under [Section 5.7.3 Shipping Instructions for Robot Transport Exemption Granted Teams](#).

## 5.7 Crate Shipping Instructions for Robot Transport Exemption Approved Teams and Those Attending *FIRST* Championship

### 5.7.1 Important Information:

1. All Robot Transport Exemption granted teams **MUST** build a crate to ship their robot in.
2. ALL teams attending the *FIRST* Championship **MUST** build a crate to ship their robot in and MUST ship their robot to the *FIRST* Championship.
  - I. Robot shipments in crates must abide by standard freight shipping processes. This applies to any team moving their robot within a crate.
  - II. FedEx will not pick up a robot that is not in a crate.
3. See the [Shipping Crate Construction](#) document for more details. As a reminder these minimum guidelines must be followed:
  - I. **Keep your FILLED crate weight below 400 pounds.** Teams are expected to use their crate to ship their robot and to minimize any additional components or tools included, in order to keep the crate weight below 400 pounds.
  - II. **DO NOT** include any tools, luggage or additional materials that will cause your crate to exceed the maximum weight. **Any teams exceeding 400 pounds will be charged overage fees accordingly.**
  - III. **Clearly mark your crate with your team number for identification purposes.**
  - IV. **Attention International teams:** The robot transportation exemption is only intended for transporting your robot. However, if you must include additional items in the crate, such as spare robot parts, tools or pit materials, you MUST declare ALL ITEMS on your Customs paperwork and include the following details: description, value, country or origin, Harmonized Tariff Schedule (HTS) number, etc. For more details, please go to the [FIRST Robotics Competition Robot Transportation page](#).
    - a. Anything you pack in the crate on Import MUST also be included upon Export. The entire shipment is a Temporary Import; work with your Customs broker to ensure proper filing.
    - b. *FIRST* is not responsible for any items that are not declared or confiscated by Customs.
4. Affix sheets of clear plastic or a sturdy sheet protector securely to the outside of your crate for a place to put the shipping documents before shipment. Failure to do this may result in lost or delayed robots, due to missing or ripped shipping documents.
  - I. We recommend purchasing a Job Ticket Holder, model number S-2761, from ULINE. You can see this product [here](#).



5. FedEx Freight requires prior notice for pickups, especially if your location does not have a loading dock.
  - I. If you have been granted a Robot Transport Exemption and/or are attending the *FIRST* Championship, you must call FedEx after you have received your shipping documents to schedule your pickup **AND** indicate if there are any special instructions for pickup (i.e., lift gate needed or shipment is located at a school).
6. Please keep in mind that there could be a delay in FedEx's availability to pick up your robot, due to a proper truck being available. Therefore, do NOT wait until the last minute.
  - I. Please make sure you contact the appropriate division of FedEx based upon the instructions provided on your waybill; i.e., Air, International, Express or Freight.
  - II. For more information see the "Quoting and Booking a Robot Crate" document posted on the [FIRST Robotics Competition Robot Transportation page](#).
7. If you find that your robot crate has been damaged on the journey to your event, you must notify the Pit Admin at your event on the *FIRST* day of the event.

### 5.7.2 Tool Crate Information

Teams granted a Robot Transport Exemption or attending *FIRST* Championship MAY ship or bring a tool crate. Some teams choose to ship or bring a second crate to the event(s) to have additional tools available. Shipping a second crate is allowed, but only if the team meets the following requirements:

1. The team is solely responsible for ALL shipping and drayage costs for their second crate;
2. The second crate may NOT be shipped using the FedEx donation. Abuse of the FedEx donation may result in a loss of this option for teams in the future;
3. Paint or stencil "TOOL CRATE" in letters at least 6 inches tall on each side of the crate. Failure to properly label which crate contains tools may delay arrival of your robot at the event.

### 5.7.3 Shipping Instructions for Robot Transport Exemption Granted Teams

If you are approved for an exemption, *FIRST* HQ will provide you with two (2) FedEx vouchers for transportation to/from the official drayage location with specific instructions as to which type of FedEx service you are eligible for based upon geography.

1. Your robot will be shipped to a drayage location identified by *FIRST* depending upon the location where it will be stored and then transported in time for your event.
2. Once at the venue, you will un-crate the robot and return it to the crate at the conclusion of the event for re-shipment.
3. Once the robot is re-crated, attach the appropriate shipping documentation to the crate inside the plastic document cover, to facilitate shipping from the drayage facility to its next destination (Regional, home, or *FIRST* Championship).
4. After your robot has been picked up by FedEx, please provide *FIRST* HQ ([frcl logistics@firstinspires.org](mailto:frcl logistics@firstinspires.org)) with a copy of your shipping documentation. This will allow *FIRST* to assist with any logistical complications.
5. The drayage company will pick it up at the event, bring it back to the drayage location and ship the robot to its next destination using instructions you provide which are attached to your crate.

## 6. International teams:

- I. Be sure you have also included the necessary Customs documents; i.e., Commercial Invoice, Shipper's Letter of Instruction and packing list, etc. so that your shipment is processed through Customs without delay
- II. Due to import and export laws, *FIRST* has created a secondary document for international teams. For more information see the "International Shipment Guide" document posted on the [FIRST Robotics Competition Robot Transportation page](#).

**If your first event is the one to which you have been granted a Robot Transport Exemption,** you must still bag and tag your robot on "Stop Build Day". You may be able to delay shipping your robot until after "Stop Build Day", and robot inspectors will need evidence that the robot has not been worked on between "Stop Build Day" and shipment. Follow the Robot Lock and Unlock Instructions in [Section 5.4 Robot Lock and Unlock Instructions](#) to lock up your robot. DO NOT open your bag at the event until it has been checked, approved by a robot inspector, AND the pits have officially opened for robot work. Remember you will need to bag the robot again at the conclusion of the event if you are going to a later competition.

**If the event for which you have been granted a Robot Transport Exemption is not your first event,** you must bag and tag your robot at the conclusion of the earlier event, bring it back to your build site or other location away from the event venue, crate the robot and prepare for shipment. Follow the Robot Lock and Unlock Instructions in [Section 5.4 Robot Lock and Unlock Instructions](#) to lock up your robot at the earlier event. DO NOT open your bag at the next event until it has been checked, approved by a robot inspector AND the pits have officially opened for robot work. Remember, you will need to bag the robot again at the conclusion of the next event if you are going to a later competition.

### 5.7.3.1 LIMITATIONS OF THE FEDEX VOUCHER FOR ROBOT TRANSPORT EXEMPTION APPROVED TEAMS

1. **If you are attending multiple events and have requested a Robot Transport Exemption, you will still ONLY receive two (2) FedEx shipping documents. Attending multiple events does not increase the number of FedEx shipping documents a team will receive. The maximum number of FedEx shipping documents any team will receive during the season is two (2).**
2. **After you have used your two (2) FedEx shipping documents, you will be responsible for the robot shipping costs to/from any additional events in which your team is competing. This includes the *FIRST* Championship.**
3. Teams with Robot Transport Exemptions have the option of using their second FedEx shipping document to ship their robot to a second Regional, or to the *FIRST* Championship, or home. (ALL teams will receive a FedEx shipping document to ship their robot home from *FIRST* Championship at the *FIRST* Championship event during Check Out).

### 5.7.4 Shipping your Robot to the *FIRST* Championship

1. If your team qualifies for the *FIRST* Championship, you will be emailed one (1) FedEx electronic shipping document after the qualifying event to ship your robot to the *FIRST* Championship. **Note: Robot Transport Exemption Granted teams see [4.III.b](#) below.**
2. **Your team's Main and Alternate Contacts will receive an email advising them to complete a document with the shipping information to ship your robot to the *FIRST***

**Championship. They will then need to promptly reply back with this information. Failure to provide this information in a timely fashion could result in your robot not making it to the *FIRST* Championship in time.**

3. ALL teams attending the *FIRST* Championship **MUST** have a crate to ship their robot in and **MUST** ship their robot to the *FIRST* Championship.
4. Robots competing at the *FIRST* Championship must be shipped as soon as you have secured your spot, completed payment and received your shipping documents, and no later than the deadline provided to your team with your shipping documents.
  - I. *FIRST* will not be responsible for any robots not shipped by teams per instructions. Failure to ship robots in a timely fashion could result in robots arriving late to the *FIRST* Championship with the potential to miss matches.
  - II. Non-Exemption Granted Teams:
    - a. After you have competed at another event, you must ensure your robot is bagged and tagged at the conclusion of that event per the instructions in [Section 5.3 Instructions for “Bag and Tag”](#). Bring your robot back to your build site or other location away from the event venue, crate the robot and prepare for shipment to *FIRST* Championship. Follow the instructions as outlined in [Section 5.7 Crate Shipping Instructions for Robot Transport Exemption Approved Teams and Those Attending FIRST Championship](#) regarding crating requirements.
  - III. Robot Transport Exemption Granted Teams:
    - a. After you have competed at your final event, you must ensure your robot is bagged and tagged at the conclusion of that event per the instructions in [Section 5.3 Instructions for “Bag and Tag”](#). Your robot and robot crate will be transported back to the drayage location of your final event.
    - b. Have you used both of your FedEx shipping documents?
      - i. If yes, your team is responsible for coordinating transportation and paying shipping costs for the robot crate to the *FIRST* Championship. You **MUST** provide the carrier and tracking information in an email to [frclogistics@firstinspires.org](mailto:frclogistics@firstinspires.org).
      - ii. If no, you may use your second FedEx shipping document to ship your robot directly to the *FIRST* Championship drayage location.
5. All teams attending the *FIRST* Championship will receive (1) one shipment home for their robot under the FedEx donation. The FedEx shipping document for this shipment will be distributed at *FIRST* Championship at Check Out.
  - I. This shipping document will be pre-printed with the shipping information that you provided before Championship.
6. If the team would like to take their robot home as they leave *FIRST* Championship, they **MUST** email [frclogistics@firstinspires.org](mailto:frclogistics@firstinspires.org) to have their request approved by April 22, 2016.

### 5.7.5 Shipping your Robot using your own Funds

Teams may ship their robot to any event at their own cost without receiving an approved Robot Transport Exemption from *FIRST*. DO NOT ship directly to the venue. However, unless a team has received a robot

transport exemption approval, the final leg of the robot’s journey, arrival at the venue and delivery to the team pit, must be done by the team.

## 5.8 Important Shipping Contacts

### 5.8.1 FIRST is Your Primary Contact

If you have any questions about robot shipping rules or processes, **CALL FIRST!** Rules in this chapter are written and administered by *FIRST*, not FedEx. *FIRST* is not responsible for information given by representatives of outside vendors.

Additional instructions:	<a href="#">FRC Competition/Game Manuals</a>
Download shipping labels and Robot Lock-up Form :	<a href="http://www.firstinspires.org/resource-library/frc/robot-transportation">http://www.firstinspires.org/resource-library/frc/robot-transportation</a>
Phone:	(800) 871-8326 OR (603)666-3906 - 8:30 AM to 5:00 PM ET
E-mail:	<a href="mailto:frclogistics@firstinspires.org">frclogistics@firstinspires.org</a> Subject line: <i>FIRST</i> Team [your #] Shipping Question
Fax:	(603) 666-3907
Address:	Team Support/Operations 200 Bedford Street Manchester, NH 03101

### 5.8.2 FedEx

Call FedEx to schedule your pickup and with any FedEx tracking questions. Have your Bill of Lading and/or Pro Number available when you call.

Website:	<a href="http://www.fedex.com">www.fedex.com</a>
Phone - FedEx Freight:	1-866-393-4585
Phone - FedEx Express:	1-800-GO-FedEx (1-800-463-3339)