

ROBOT TRANSPORTATION

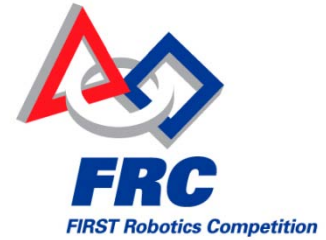


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4 ROBOT TRANSPORTATION

4.1 OVERVIEW

FRC teams ship their robots to ensure that all teams have an equal amount of time to build, test and modify their robots. Robots are shipped to the drayage site for the first event that your team will attend and then shipped to any subsequent events.*

This section provides information regarding shipping and associated requirements, the drayage system, crate specifications and an introduction to the FedEx® shipping donation. Please make sure those persons responsible for shipping your team's robot understand and follow the rules in this chapter. Following the guidelines will ensure that your robot arrives where it needs to be on time, so that your team can focus on the important thing – participating in the event!

Please note: Teams planning to attend a Bag and Tag Event will have specific requirements – please read this entire chapter!

4.2 ROBOT SHIP DAY

All Robots must be out of the teams' hands before midnight local time on ROBOT SHIP DAY.

ROBOT SHIP DAY is Tuesday, February 23, 2010

4.2.1. Robot Ship Day Options

Robots may be “shipped” on or before ROBOT SHIP DAY in one (1) of four (4) ways:

1. Deliver your robot to the drayage location of your first event. Please see <http://www.usfirst.org/roboticsprograms/frc/regionalevents.aspx?id=430> to find the drayage location for your first event.
2. Use one (1) of your team's donated FedEx shipments to ship to the drayage location for your first event. Teams using this method must read Section 4.7 carefully and abide by all requirements.
3. Arrange shipment through Shepard Exposition Services (SES) or another freight carrier to ship your robot to the drayage location for your first event.
4. If your first event is a Bag and Tag event, bag your robot per the instructions in Section 4.8. (Only applies to designated Bag and Tag events!)

NOTE: Teams must work within the business hours of the shipper and drayage facilities. Shepard Exposition Services (SES) warehouses have business hours Monday – Friday, from 8 AM to 4 PM.

4.2.2. Required Verification

Robot shipments will be verified by *FIRST* following ROBOT SHIP DAY. Any team that fails to comply may jeopardize their participation in the rest of the FRC season. See Section 4.5.2.

- Any team that ships using their first donated FedEx shipment does not need to send any verification.

- Any team that uses another method of delivery to the drayage facility for their first event must obtain a hard copy of the delivery receipt. Please see [Section 4.5.3](#) for complete instructions.

4.3 SHIPPING AND DRAYAGE DEFINITIONS

BILL OF LADING White FedEx Freight shipping document printed in purple and red. Provided by *FIRST* at Kickoff and used to ship the team's robot. US teams receive one (1) bill of lading for each leg of the robot's journey that is covered under the 2010 FedEx donation.

Consignee Term on a FedEx Bill of Lading that refers to the recipient of the crate. The Consignee is the "Ship To" address for your crate. When shipping your robot to a drayage warehouse, your Consignee would be the drayage company and the address of the warehouse.

Drayage In our case, drayage refers to the system of storing robot crates between traditional (non-Bag and Tag) events and delivering them to the event venue. Drayage also includes coordinating outbound shipment of robot crates after each event.

Payment Authorization Form A form required by Shepard Exposition Services (SES) in order to handle your crate through the drayage system. Teams must provide credit card information on this form to cover any freight overages. This form must be completed regardless of which shipping method you will use.

PRO NUMBER A number used to track the movement of a shipment through the FedEx Freight system. Each Bill of Lading will have a Pro Number and barcode in the upper left-hand corner.

Shipper Term on a FedEx Bill of Lading that refers to who is shipping the crate. Please fill in the school/company name and address, as well as the contact name and phone number for the person shipping the crate.

Shipping In this case, the term "shipping" refers to the transportation of your robot in its crate:

- 1) To the Drayage warehouse
- 2) From the Drayage warehouse to the next event's Drayage warehouse
- 3) Home after your last event

TRACKING NUMBER A number used to track the movement of a shipment through the FedEx Express system. Each US Airbill or International Air Waybill will have a Tracking Number pre-printed on the form. Only a limited number of teams will receive a US Airbill or International Air Waybill.

BAG Plastic BAGS large enough to contain your robot. Provided by *FIRST* to isolate your robot under the Bag and Tag system.

TAG Zip tie TAGS with individual serial numbers used to seal BAGS for teams attending Bag and Tag events.

4.4 DRAYAGE – WHAT IS IT AND WHY DOES IT MATTER?

FIRST contracts with a drayage company for each traditional (non-Bag and Tag) event. They receive and store your robot until it is needed, transport it to and from the event venue and ensure that your robot ships off to its next destination. Every team attending a traditional Regional Event must ship its competition crate(s) to the designated drayage. Only teams attending Bag and Tag events will be allowed to transport their robots directly to the event venue.

Shepard Exposition Services (SES) is the designated drayage company for all events except the SBPLI Long Island Regional and New York City Regional. FESTO Corporation handles materials for the SBPLI Long Island Regional event.

The drayage company provides the following services:

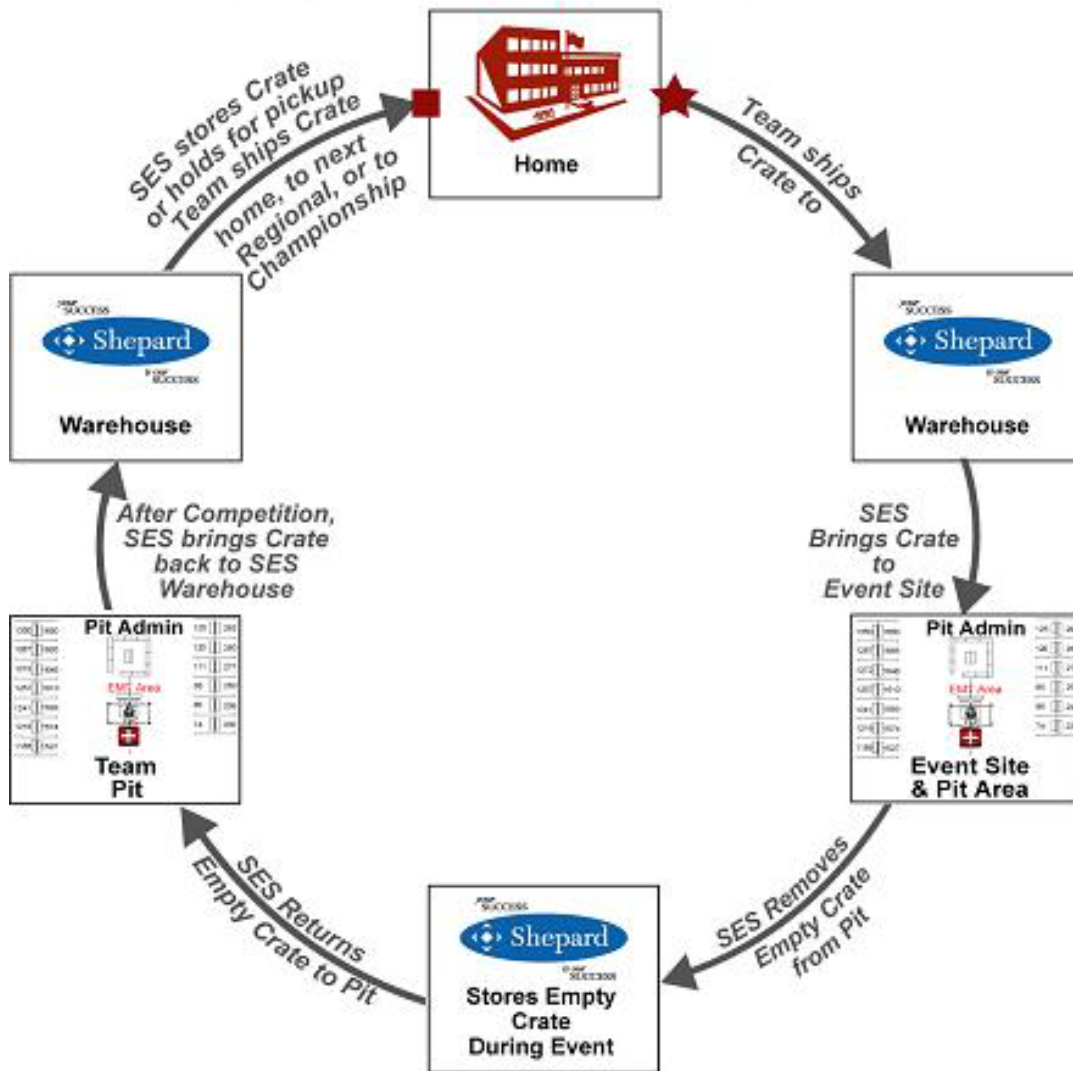
- a. Robot storage prior to the events;
- b. Ensuring on-time crate delivery to team Pit stations at the Regional Events;
- c. Storage for empty crates at the venue;
- d. A staging location for outbound shipments;
- e. Protecting staff and teams from crowded load-in and load-out situations; and
- f. Compliance with venue contracts which prohibit the acceptance of shipments on site.

4.4.1. Visual Depiction of Shipping / Drayage Process

The figure below will help you understand the path of your robot and crate as they move through the drayage system during the 2010 season. Teams attending a traditional Regional Event or the Championship will use the drayage system.

Shepard Exposition Services (SES) FIRST Drayage Contractor

Understanding Drayage and Robot Transportation



* Shepard Exposition is not responsible for Drayage service for Long Island Regional Diagram and service applies for all other Regionals

4.4.2. Rules of the Drayage System

4.4.2.1. Before Your Events

- All teams **MUST** complete a “Payment Authorization Form” prior to your team’s initial event. Go to www.shepardes.com/first to complete an online payment authorization or print a faxable form. If your team does not complete the form prior to

attending an event, you will be required to provide a valid credit card on the spot to cover any shipping or weight overage charges.

- Teams may plan to ship their robot through SES because they are a) saving their Donated FedEx shipments; or b) all the team's FedEx shipments have been used up. Arrangements for the shipment must be made before the event (see [Section 4.5.4](#)).

4.4.2.2. At the Events

Drayage personnel are not allowed to, and will **not**, load your crate onto your vehicle. At a traditional Regional Event (non-Bag and Tag) teams must:

- a. Provide either a completed FedEx BILL OF LADING **or** schedule a shipment with SES.
- b. Fill out an SES BILL OF LADING in addition to any other shipping paperwork.
- c. If you will be shipping with SES, they must have a Payment Authorization Form on file for your team **before** you will be able to make shipping arrangements.
- d. **All shipments must be paid before you leave the Regional. Payment is accepted in the form of credit card on file, money order, or school check.**

4.4.2.3. Drayage Costs and Other Details

FIRST pays the drayage costs for robot crates up to 400 pounds. Certain rules apply to crates moved through the drayage system:

- Crates will be weighed at each event and charges will be assessed separately at each event.
- Any **robot** crate heavier than 400 pounds will be charged as follows:
 - \$55 for crates weighing 400-450 pounds;
 - \$100 for crates 450-500 pounds; and

NOTE: A team's scales may vary from the drayage company's scales. It's in a team's best interest to stay well under break points in the drayage charges. For example: a crate weighing 435 pounds would be charged \$55 but a crate weighing 460 pounds would be charged \$100.

 - An additional \$100 for every 1-100 pounds over 500. For example: a crate weighing 545 pounds would be rounded up to 600 pounds and would be charged \$200.
- Any **tool** crate (second crate) will be charged \$55 for every 1-100 pounds for the entire weight of the crate. For example: a tool crate weighing 340 pounds would be rounded up to 400 and charged \$220. **NOTE:** Teams are responsible for shipping charges on tool crates as well. See [Section 4.5.7](#).
- **Weigh In:** The drayage warehouse handlers will weigh team crates as they arrive at each facility. These weights will be certified and any crates exceeding 400 pounds will be subject to drayage overage fees.
- If a team wants to dispute the weight of its crate, a scale will be on site at each event for reweigh. **Teams must request reweighing BEFORE opening the crate.** Once the crate is opened, the team relinquishes any appeal rights.
- **Damage:** The drayage warehouses will not be responsible for damage to uncrated materials, improperly packed materials, or any concealed damages, loss, or theft of materials after crates have been picked up for loading out of the competition site.

4.5 SHIPPING YOUR ROBOT

Event sites do not accept or store team robots, crates or toolboxes. All teams must ship to the designated drayage warehouse facility which stores the robots and then transports them to the event site and back to the warehouse for outbound shipment.

If you ship two (2) crates, both crates must adhere to all shipping rules and deadlines. Teams are responsible for paying for ALL charges at the time of shipment.

4.5.1. Robots MUST Ship Through the Drayage System

In order to maintain a fair and safe robot shipping process and honor our venue agreements, union rules, and on-site safety, teams must ship robots from event to event through SES.

- 4.5.1.1. **Do not ship your robot to the event location. Venues will NOT accept robot crates and *FIRST* will NOT take responsibility for robots shipped by any method other than those outlined in this chapter.**
- 4.5.1.2. **The ONLY events that allow teams to carry their robots directly into the venue are Bag and Tag events. For 2010, this includes Greater Kansas City, Pittsburgh, Oklahoma, Waterloo, Sacramento, Greater Toronto and all Michigan Events.**

4.5.2. Shipping to Your First Event

For your initial event only, you have three (3) options to transport your robot to the drayage facility. You may:

1. ship your robot using the FedEx donation;
 2. ship your robot either through Shepard Exposition Services (SES) or using an alternate shipper of your choice; or
 3. hand deliver your robot to the drayage facility for your first event.
- 4.5.2.1. **All teams must follow these procedures:**
- Locate “Shipping and Drayage” information for your initial event on the *FIRST* website at <http://www.usfirst.org/roboticsprograms/frc/regionalevents.aspx?id=430>
 - Print the related shipping labels for your crate(s);
 - Refer to Section 4.7 for further details about shipping via the FedEx donation;
 - Make shipping arrangements well before the ship deadline. *FIRST* will not make exceptions for teams that did not ship on time; and
 - Print, read and save all relevant sections of this manual as well as the Shipping and Drayage document for the event you will attend. Bring them to your event.
- 4.5.2.2. **Special notes for teams using SES, an alternate shipper or hand delivering their robot to the drayage facility for their first event**
- Teams may wish to consider these alternate options for their first event if they expect to use all of their donated FedEx shipments before they finish competing for the season. Teams are financially responsible for any shipments they require outside of the FedEx donation.
 - Obtain a dated receipt from your carrier. You will need to track your crate’s progress yourself, as well as providing a copy to *FIRST* to verify your initial shipment (see [Section 4.5.3](#)).

- You will need the total weight and dimensions of your crate and its contents to request an accurate price estimate from alternate shippers;
- If you drive your robot to the drayage facility, your truck must have a 48" bed height or you will be turned away at the warehouse; and
- If you don't have a loading dock, notify your shipper that your crate pickup area does not have a loading dock so the shipper will send a truck with a lift gate.

4.5.3. Verify Initial Crate Shipment – Mandatory

Every team must provide proof that their robot shipped on or before ROBOT SHIP DAY. Please follow the instructions below for your chosen shipment method.

4.5.3.1. If You Ship Using the FedEx Donation

FIRST will receive shipment information directly from FedEx and verify that your shipment was picked up on or before ROBOT SHIP DAY.

4.5.3.2. If You Drive Your Robot to the Drayage Facility

- Ask the drayage warehouse personnel to put the time and date of delivery on an official receipt;
- Write your team number clearly on the receipt;
- Make a copy and retain for your records;
- Address the envelope as shown below, using all capital letters; and
- Send the receipt to *FIRST* so it arrives by Monday, March 1.

4.5.3.3. If You Use an Alternate Shipper

- Obtain a receipt from the shipper and ensure it clearly shows the date and time the crate left your team's hands;
- Write your team number clearly on the bill of lading/receipt;
- Make a copy for tracking purposes and retain for your records;
- Address the envelope as shown below, using all capital letters; and
- Send the receipt to *FIRST* so it arrives by the following Monday.

4.5.3.4. If Your First Event is a Bag and Tag Event

- Bag and seal your robot on or before ROBOT SHIP DAY.
- Fill in the Robot Lock-Up Form, clearly noting the date and time (see [Section 4.8](#) for further details).

4.5.3.5. Verification Mailing Address – Use capitals please.

YOUR TEAM # and EVENT NAME AND EVENT DATE

TEAM SUPPORT / OPERATIONS

FIRST ROBOTICS COMPETITION

200 BEDFORD STREET

MANCHESTER, NH 03101

4.5.4. Event to Event Shipping – After Your First Event

After your team attends its first event, you must ship through the DRAYAGE system (unless your second event is a Bag and Tag event).

Crates must ship directly from event to event, either through:

1. Shepard Exposition Services and its Logistics carrier. Make arrangements before your event if you plan to ship through SES. To request a price quote and schedule your shipment, visit the SES website: www.shepardes.com/first OR
2. Using a FedEx Freight donated shipment. Bring the supplied BILL OF LADING and PRO NUMBER stickers with you to the event if you intend to use this method. Replacements will not be provided for lost or forgotten shipping paperwork.

4.5.5. Shipping to Events in Consecutive Weeks

FIRST discourages teams from competing in events on consecutive weekends if they are more than 1,000 miles apart. If you choose to attend two events in consecutive weeks, please consider these points:

- **You cannot use a FedEx donated shipment for back-to-back events.**
- The shipping cost for back-to-back events is extremely costly. Compare shipping a small package to a location at a “ground” rate and the cost of sending it overnight. Use this same scenario to compare freight shipping rates for a 3 or 4 day freight shipment to an overnight or airfreight shipment. *The difference can be staggering!*
- Teams attending events in consecutive weeks must make special shipping arrangements with SES. Make these arrangements early to make sure that SES can accommodate your request.
- Teams will not be allowed to bag their robots if they are not attending a Bag and Tag event.

4.5.6. Delivery Deadlines

Crates must arrive at the drayage site by the Monday before the event in order to be in place for the beginning of the event. If you are concerned that your crate may not arrive in time, make prior arrangements with the drayage company.

4.5.7. Shipping a Tool Crate

Some teams choose to ship a second crate containing tools to the event(s). Shipping a second crate is allowed, but only if the crate meets the following conditions:

- 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 all teams in the future.
- The team is financially responsible for all shipping and drayage costs for their second crate. The team must call SES prior to ROBOT SHIP DAY to arrange shipment of the second crate and payment of the drayage charges.
- Paint or stencil “TOOL CRATE – Pc 2 of 2” in letters at least 6 inches tall on each face of the crate. Failure to properly label which crate contains tools may delay arrival of your robot at the event.

4.5.8. Outbound Shipments from Events

1. Remove all old PRO NUMBER stickers from your crate;
2. Attach address labels to your crate showing the next destination;
3. Fill out all required BILLS OF LADING using the drayage location for the current event as the “Shipper” and the next destination as the “Consignee”;

4. Turn in all shipping paperwork to the SES shipping desk at the event. Teams that leave their shipping paperwork on the crate or fail to provide correct shipping paperwork will be charged for their shipment; and
5. SES will contact FedEx or the SES house shipper (depending on what you indicated on your shipping paperwork) to schedule the outbound shipment from the drayage warehouse.

4.5.9. Shipping Home from Your Last Event

Teams must also use SES to ship their robot and crate(s) home from traditional Regional Events. Exceptions to this rule will be made on a case-by-case basis.

1. Requests will be considered for a team's last event of the season only.
2. Teams requesting an exception must contact Team Support via frcteams@usfirst.org.
3. **Complete the exception application process by February 26, 2010** to allow for processing. Make the request clear and provide the:
 - Subject line: "Robot Removal, "Name of Event - Team (your team #)";
 - Reason you are requesting an exception – detailed explanation; and
 - Event from which the robot would be taken.

Upon reception of this information, *FIRST* will, in good faith, consider your request. Be advised that each venue, its rules, and safety situations are unique. Some events are not laid out for safe robot removal and you will be refused for that reason. The Director of FRC will review each case and will provide a written response. This decision will be final.

4.5.9.1. Exception Stipulations

- The drayage company will not help or provide equipment for the removal and teams will not be permitted to use the loading dock.
- You may have to wait to load out at an earlier or later time than may be convenient.
- You will also be responsible for dismantling and removing your robot crate. Do not expect to receive assistance in those processes.
- A \$150 clean-up fee will be assessed for any crates left behind.

4.6 CRATE CONSTRUCTION REQUIREMENTS

Build your crate so it is sturdy and falls within height and weight parameters when packed for shipment. If a crate exceeds size specifications or is poorly constructed, *FIRST* will not guarantee its security or its delivery to the site.

4.6.1. All Crates MUST:

1. **Weigh less than 400 pounds when fully loaded.**
2. "Sit" on 2 pieces of 4" x 4" lumber, spaced at least 28" apart so it can be moved by a forklift.
3. Have a footprint no greater than 4' x 4' and be no taller than 5'10" (70") high. This maximum includes the 4" x 4" lumber mentioned above.
4. Be constructed so it can withstand stacking during transport and storage.
5. Have "**TEAM # XXXX**" (insert your team number) painted or stenciled in letters at least 6" high on at least one side of the crate. Shipping labels and paperwork often

get lost in shipping. Painting your team number clearly on the crate will help to ensure that it arrives at your Pit Area on time.

4.6.2. Shipping Batteries

It is not mandatory that you ship your batteries with the robot, however, if you choose to ship the 12VDC batteries in the crate with the robot, federal regulations require teams to follow the instructions below.

- NO batteries are to remain mounted on the robot (connected or not)!
- Ship them inside their original box or carton packaging.
- Use the Styrofoam covering with protective caps to cover the battery terminals.
- Secure the boxed batteries inside an “inner battery box.” See the Robot Shipping web page for further instructions on constructing an inner battery box.
- Both the inner battery box and the outside of the crate must be labeled “NON-SPILLABLE BATTERY INSIDE.” The Shipping and Drayage document for your Regional Event will include printable labels for your use.
- NOTE: International teams do not need to ship batteries with their robots to events in the US. Batteries will be provided for your use, via the spare parts table, at the regional events.

For further instructions and suggestions about building your crate, refer to the Robot Shipping web page at <http://www.usfirst.org/roboticsprograms/frc/content.aspx?id=3570>.

4.6.3. International Teams - Crates Crossing US Borders

The above sections apply to all crates. Crates crossing a US border have additional limits. Federal Rules apply to the crating and the pallets you will use to ship crates across US Borders to FRC events.

The US Dept. of Agriculture has adopted international guidelines to decrease the potential for the introduction of certain plant pests that may accompany wood materials arriving from other countries. The crate construction and pallet guidelines stipulate that wood packing materials be either heat treated or fumigated with methyl bromide in accordance with applicable rules. These wood materials must have the approved international mark certifying treatment.

ALL IMPORTS (with certain exceptions) WILL BE DENIED ENTRY IF THEIR WOOD PACKING MATERIAL DOES NOT CONFORM TO THESE GUIDELINES AND MARKING REQUIREMENTS.

All international teams, or US teams shipping into and out of the US, must do the following to comply:

- Use only plywood or other exempted wood materials when constructing their shipping crates and robots;
- If using raw wood materials such as 4” x 4”, 2” x 4”s, 1” x boards, etc..., obtain the materials from a lumber dealer who sells compliant wood products;
- Be sure the wood is marked with the approved international mark;
- Make sure you use properly treated and labeled wood for the 4” x 4”s under your crate used for facilitating forklift use;
- If you must use a pallet to ship your crate, make sure it is either non-wood or a compliant wood pallet, available from commercial pallet distributors;
- Canadian teams should obtain an appropriate importer’s statement as indicated; and

- Contact your local FedEx office for additional information and assistance. You can also find information at: <http://fedex.com/us/promo/woodpackaging.html>

4.7 USING THE FEDEX® DONATION TO SHIP YOUR ROBOT

FedEx has again graciously agreed to partner with *FIRST* for the 2010 FRC season. FedEx's donation will allow all FRC teams to ship their robot to and home from one (1) traditional Regional Event. *FIRST* expects all teams to follow the instructions below carefully. Neither FedEx nor *FIRST* can reimburse teams for shipments that violate the terms of the donation.

NOTE: Teams will only participate in the FedEx donation if they are attending a traditional Regional Event or the Championship. Shipping will not be available to or from Bag and Tag events.

4.7.1. Shipping Within the 48 Contiguous US States – FedEx Freight

Each US team will receive up to two (2) FedEx Freight BILLS OF LADING to use during the season. The number of BILLS OF LADING received will depend on the events the team will attend, but no team will receive more than two (2).

Teams must call FedEx by February 16, 2010 to schedule a pickup appointment on or before ROBOT SHIP DAY. Failure to schedule your pickup by February 16 may result in your robot not being picked up on ROBOT SHIP DAY, which may jeopardize your participation in the rest of the FRC season. Call FedEx Freight at 1-866-393-4585.

- FedEx will not pick up a robot that is not in a crate. See [Section 4.6](#) for crate requirements.
- Teams are financially responsible for any shipments they require outside of the FedEx donation.
- Teams will receive their BILLS OF LADING with the Kit of Parts in January. The BILLS OF LADING will be packaged in a FedEx Express envelope with your team number on the front. Once your team signs off on their Kit of Parts receipt, YOU are responsible for keeping track of your BILLS OF LADING.
- Treat your BILLS OF LADING like gold! The FedEx donation can save your team several hundred dollars on shipping your robot. **FIRST will not provide replacement BILLS OF LADING for teams that lose, forget or otherwise fail to properly use their shipping paperwork.**
- Only the pre-printed FedEx Freight BILLS OF LADING provided by *FIRST* will count as part of the FedEx donation. Teams that obtain BILLS OF LADING from any other source will not have their shipments covered.
- Each BILL OF LADING is made up of a top sheet and a carbonless copy underneath. Provide the top copy to the FedEx driver when they pick up your robot and retain one for your records. You will need the PRO NUMBER in the upper left-hand corner to track your shipment.
- If you do not intend to use all of your team's donated shipments, please mail the BILL OF LADING back to Team Support/Operations at *FIRST*, 200 Bedford Street, Manchester, NH 03101. Abuse of the FedEx donation could result in the loss of the donation for all teams in the future.
- Teams **CANNOT** use the FedEx donation for back-to-back events (aka consecutive weekends).
- If your team is registered to compete at the Championship, the FedEx donation provides one (1) additional shipment home from the Championship. You will receive the additional BILL OF LADING at the Championship.

- Teams qualifying for the Championship at a traditional Regional Event will **NOT** receive any additional BILLS OF LADING at the qualifying event. Teams are responsible for managing how they use their two (2) donated shipments. Event Managers will not have extra copies available. The only exception to this rule will be teams qualifying for the Championship at a Bag and Tag event (see Section 4.9).

Example: If a team uses one (1) Bill of Lading to ship to their initial Regional and their second Bill of Lading to ship to their second Regional, then the team must pay SES to ship their robot home OR to the Championship. If a team has qualified to go to the Championship at a Regional and they have already used their two (2) donated shipments, then the team **MUST** ship to the Championship through SES.

For further details on the FedEx donation and examples of how to fill out your BILLS OF LADING, see the Robot Shipping web page here:

<http://www.usfirst.org/roboticsprograms/frc/content.aspx?id=3570>

4.7.2. Track Your Shipment

FedEx Freight Shipments may take up to 5 or 6 business days to arrive. Bad weather may delay shipments by an additional day or two. (Do not count the day you ship). If this will not allow your robot to arrive at its next destination on time, you must work with SES to arrange and pay for the shipment.

To estimate the travel time for your robot to arrive, please use the FedEx service map here: www.fedexfreight.fedex.com/servicemaps.jsp. Make sure that you select FedEx Freight.

Your PRO NUMBER will allow you to track your shipment online. Your PRO NUMBER is located in the upper left-hand corner of your copy of the BILL OF LADING (above the bar code).

Track your FedEx shipment at <http://www.fedex.com/us>

4.7.3. Shipping Into and Out of the 48 Contiguous US States – FedEx Express

The FedEx donation will cover up to two (2) complimentary shipments to teams shipping into and out of the 48 contiguous US states. This includes Alaska, Hawaii, Puerto Rico, and outside the US. *FIRST* will distribute these shipments to give teams the best value possible.

4.7.3.1. US Teams Shipping to a “Mainland” Event

Teams will receive up to two (2) FedEx Express AIRBILLS to ship your robot to the mainland event and home. Shipping between events will not be covered under the donation.

4.7.3.2. International Teams Shipping to a US Event

Teams will receive up to two (2) FedEx Express AIR WAYBILLS to ship your robot to the US event and home. Shipping between US events will not be covered under the donation.

- Teams are financially responsible for any shipments they require outside of the FedEx donation.
- Teams will receive their AIRBILLS or AIR WAYBILLS with the Kit of Parts in January. The shipping documents will be packaged in a FedEx Express envelope with your team number on the front.
- Teams **CANNOT** use the FedEx donation for back-to-back events (aka consecutive weekend).

- If your team is registered to compete at the Championship, the FedEx donation provides a third shipment home from the Championship.
- Teams qualifying for the Championship at a Regional Event will **NOT** be given BILL OF LADING to ship to the Championship. Event Managers will not have extra copies available.
- You **cannot** take your robot home from any event, including the Championship, unless it is a designated Bag and Tag event. You must ship your crate(s) unless you have been granted an exception (refer to Section 4.5.9).
- International AIR WAYBILLS may only be used to ship into and out of the US. They may not be used to ship between events inside the US.

For further details on the FedEx donation and examples of how to fill out your AIRBILLS and AIR WAYBILLS, see the Robot Shipping web page here:

<http://www.usfirst.org/roboticsprograms/frc/content.aspx?id=3570>

4.7.4. International Shipments and Customs

1. Teams shipping to international events and international teams shipping into the US and back, should research Customs requirements weeks in advance.
2. *FIRST* strongly recommends using a Customs Broker so your team knows exactly what paperwork it needs to complete/supply to correctly import and export your crate. If you wish to use FedEx as a customs broker, please call 1-800-GO-FEDEX.
3. Comply with the requirements for Crates Crossing US Borders listed in Section 4.6.3.

4.7.5. Shipments the FedEx Donation Does Not Cover

The FedEx donation does not cover shipments intra-Hawaii, intra-Canada or intra-Israel. This means teams shipping within these areas must pay for their own shipping arrangements. Teams are responsible for all shipping costs.

4.8 BAG AND TAG

Teams attending the **Greater Kansas City Regional, Pittsburgh Regional, Oklahoma Regional, Waterloo Regional, Sacramento Regional, Greater Toronto Regional,** and the **Michigan** Events in the 2010 season will use the Bag and Tag method to transport their robots.

Teams will NOT be allowed to carry their robots in or out of any other events unless they receive special permission as outlined in Section 4.5.9.

Drayage will not be available for Bag and Tag events. Do not ship your robot to the event.

4.8.1. Supplies

Each team attending at least one (1) Bag and Tag Regional Event will receive a special Bag and Tag kit in January with their Kit of Parts. The kit will contain:

- Two (2) plastic BAGS large enough to contain your robot. Only the *FIRST*-provided bags may be used – teams may not supply their own bags.
- At least six (6) zip tie TAGS with individual serial numbers.

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 the *Robot Lock-Up Form* as required in **Section 4.8.4** to verify the date and time that the BAG was sealed.

4.8.2.1. 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.

4.8.2.2. 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.

4.9 QUALIFIED FOR CHAMPIONSHIP? KNOW YOUR OPTIONS.

All shipping rules stated previously in this chapter apply to shipments to Championship.

4.9.1. What Happens if You Qualify at a Bag and Tag Event?

- Teams that qualify for the Championship at a Bag and Tag event must follow all procedures in Section 4.8.2.1. Bag your robot as described and ship it to the drayage location for the Championship.
- Teams qualifying at a Bag and Tag event will receive one (1) FedEx Freight BILL OF LADING at the event **IF** they have not already received the maximum number allowed. Teams may receive up to two (2) shipments prior to the Championship under the FedEx donation. Teams that have already received two (2) shipments will NOT receive any additional BILLS OF LADING.

4.9.2. Traditional Regional Event - If You Know You Will Attend Championship

Already know you will be able to attend the Championship? Simply ship your robot the way you would to any other event.

- If you have a FedEx shipment left, fill out the FedEx BILL OF LADING and the SES BILL OF LADING with the Championship drayage address.

- If you do not have any FedEx shipments left, fill out a SES BILL OF LADING to indicate that you will be shipping through SES and provide the shipping desk with your payment information.

4.9.3. Traditional Regional Event - Not Sure Whether You Can Attend Championship?

If you are not sure your team will be able to attend the Championship, SES will attempt to hold your robot until the Tuesday following your event. **SES cannot guarantee that they will be able to hold your crate at the warehouse after the event.** They will do their best to ensure that your robot does not ship out before Tuesday, but please call SES as early as possible with your decision.

Please follow these guidelines to request a shipping hold on your robot:

1. Talk to a representative at the shipping desk at your event. Explain your intention to place a temporary hold on your robot while you determine if you can attend the Championship.
2. Fill out your paperwork with the address of the drayage location for the Championship. Make sure that you write “Hold until Tuesday” in the special instructions box on the SES BILL OF LADING. Also fill out your FedEx BILL OF LADING if you have one left. Turn in all paperwork to the shipping desk.
3. Label your crate. Use an 8 ½” x 11” sheet of paper to create a sign for your crate that says:

<p>TEAM WILL CALL HOLD UNTIL TUESDAY</p>

4. Follow up with SES by Tuesday. Call SES at (704) 394-9140 to let them know whether you will attend the Championship or not.
5. If you will not attend the Championship, provide SES with your complete shipping address so that they can update your BILL OF LADING to ship to your team’s location.
6. Track your shipment online to ensure it arrives in time.

4.9.4. After Championship

All teams attending the Championship will receive one (1) shipment home for their robot under the FedEx donation. The BILL OF LADING for this shipment will be distributed at the Championship in the team’s registration packet.

4.10 IMPORTANT SHIPPING CONTACTS

4.10.1. *FIRST* is Your First 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 Shepard Exposition Services or FedEx. *FIRST* is not responsible for information given by representatives of outside vendors.

Robot Shipping Web	http://www.usfirst.org/roboticsprograms/frc/content.as
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Page:	px?id=3570
Shipping & Drayage Documents by Event:	http://www.usfirst.org/roboticsprograms/frc/regional-events.aspx?id=430
Phone:	(800) 871-8326 - 8:30 AM to 5:00 PM EST
E-mail:	frcteams@usfirst.org Subject line: <i>FIRST</i> Team [your #] Shipping Question
Fax:	(603) 666-3907
Address:	Team Support/Operations 200 Bedford Street Manchester, NH 03101

4.10.2. Shepard Exposition Services (SES)

Call SES if you have questions about how drayage works, if you need to schedule a shipment outside the FedEx donation, or if you have SES billing questions.

Web site:	www.shepardes.com/first
Phone:	(704) 394-9140 – 8:00 AM to 5:00 PM EST Western teams may call after hours until 10:00 PM EST at (704) 201-2058
E-mail:	pmullis@shepardes.com Subject line: <i>FIRST</i> Team [your #] for [event name]
Fax:	(704) 398-0914
Address:	Paula Mullis – <i>FIRST</i> Robotics Shepard Exposition Services 5401-M Hovis Road Charlotte, NC 28208

4.10.3. FedEx

Call FedEx to schedule your pickup and with any FedEx tracking questions. Have your BILL OF LADING and PRO NUMBER available when you call.

Web site:	www.fedex.com/us
Phone - FedEx Freight:	1-866-393-4585
Phone - FedEx Express:	1-800-GO-FedEx (1-800-463-3339)