

Section
4

ROBOT TRANSPORTATION

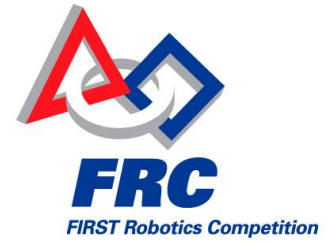


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4. ROBOT TRANSPORTATION

4.1. OVERVIEW

This section provides information regarding crate specifications, shipping and associated requirements, the drayage system, and an introduction to the FedEx® Freight complimentary shipping. Please make sure those persons responsible for building and shipping your team's crate(s) understand and follow the guidelines for these processes. Adherence is key to a successful season.

4.2. BATTERY UPDATE

Non-North American teams **cannot** ship batteries with their crate(s).

NOTE: 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. If you do not adhere to these rules, your crate may not make it to the event(s).

If you include batteries, you must:

- 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 the “inner battery box” section of the robot crate in an upright position. The photograph below shows a sample of an inner battery box built to comply with regulations. Remember to label this box...see below.



- a) **NO** batteries are to remain mounted on the robot! (Connected or not)
- b) If you ship your batteries with your robot, you must use the battery labels, "**NON-SPILLABLE BATTERY**" on all four facing sides of the crate. Find the label provided in the web site Events area, “Shipping / Drayage” section.
- c) Mark the inner battery box with the battery labels also. It too **MUST** be marked "**NON-SPILLABLE BATTERY**" in 1" or larger letters on 2 sides of the battery box.

4.3. INSTRUCTIONS FOR ASSEMBLING AN “INNER BATTERY BOX”

Bill of Materials

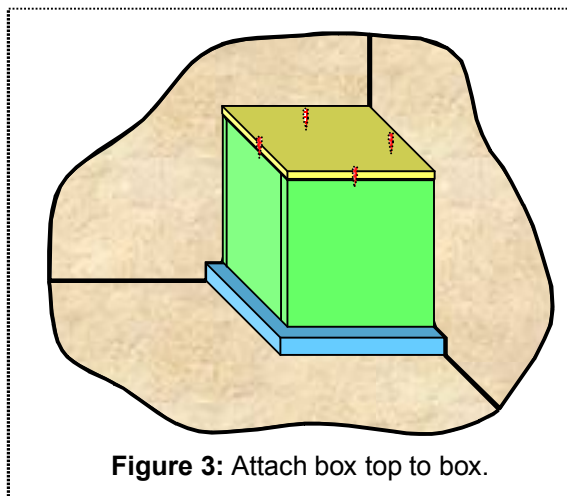
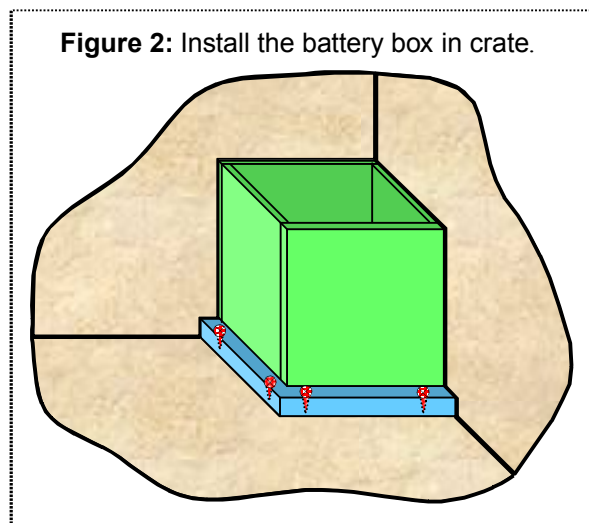
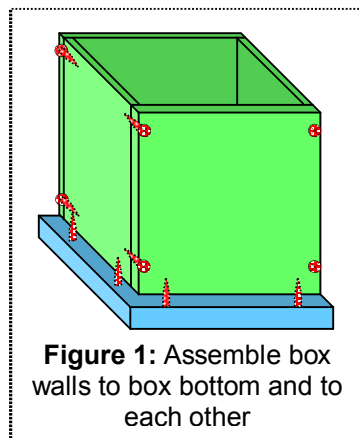
Item #	Part Description	Material	Dimensions	Qty
1	Box walls	½” plywood	8” x 8½”	4
2	Box bottom	½” plywood	9” x 10”	1
3	Box top	½” plywood	8” x 9”	1
4	Fasteners	Staples or drywall screws	1¼”	16
5	Base fasteners	Staples or drywall screws	1¼”	4
6	Lid fasteners	Drywall screws	1¼”	4

Attach the box walls to the box bottom and to each other using the fasteners, spaced approximately as shown in Figure 1.

Install the box into your crate. Use the exposed 1” lip of the box bottom to secure the box to the crate using four more fasteners. Place fasteners approximately as shown in Figure 2.

Put your batteries in the box (Don’t forget to use the original packaging and styrofoam).

Secure the box top. Use 4 fasteners, positioned approximately as shown in Figure 3.



4.4. CRATE INFORMATION

Build your crate so it is sturdy and falls within height and weight parameters when packed for shipment. Adhere to crate specifications and cautions. The Drayage Company determines whether a crate meets the size and weight criteria and will pass non-conforming crate information to *FIRST*.

If a crate exceeds size specifications, or is poorly constructed, *FIRST* will not guarantee its security or delivery to the site. The Drayage Company will round up to the next hundredweight if a crate exceeds 400 pounds, and will charge accordingly. For specific information, refer to the *FIRST* Web site and choose your event, then “Shipping / Drayage” www.usfirst.org/frc_regional_events

4.4.1. Crate Construction Specifications and Construction Suggestions

Build your crate(s) with more than one shipment and season in mind. Remember to consider the weight of your materials. For instance, if 3/8" or 1/2" plywood is sturdy enough, why use the much heavier, costlier 3/4" product?

4.4.1.1. All Crates MUST:

1. Comply with the “Wood Materials Regulations Across U.S. Borders” section below if the crate ships into the U.S.
2. "Sit" on 2 pieces of 4" by 4" lumber, spaced at least 28" apart so it can be moved by a forklift.
3. Have a footprint no greater than 4' by 4' and be no taller than 5'10" (70") high. This maximum includes the 4" by 4" lumber mentioned above.
4. Be constructed so it can withstand stacking during transport.
5. Weigh 400 pounds or less when loaded to avoid drayage overage charges.

SAFETY NOTE: Don't pack all safety glasses because you will need them when uncrating!

4.4.1.2. All crates should:

- a. Be sturdily built to prevent damage to your equipment
- b. ***Use** 3/8" or 1/2" plywood or 3/8" or 1/2" Oriented Strand Board (OSB), a solid panel product of consistent quality with no laps, gaps, or voids.

4.4.1.3. Crate building cautions:

- a) *Medium density fiberboard (MDF) is **not recommended** for crate building because the material makes crate construction too heavy, and MDF can be dangerous to use if the correct safety precautions are not taken. MDF contains a substance called urea formaldehyde, which may be released from the material through cutting and sanding and cause irritation to the eyes and lungs.
- b) ***Don't use** particleboard because it collects moisture that adds weight and may cause the crate to fall apart. Remember, your crate may be exposed to the elements when loading and unloading trucks.

4.4.2. Crate Limit

FIRST asks that each team ship only one crate, **but mandates a maximum of two crates for any team at any competition site**. This helps keep Pit entrances, aisles, and egresses clear, safe, and less crowded. This restriction also keeps team costs down.

If you ship an extra crate, it should also meet the above specifications. *Teams pay all shipping and drayage costs for the additional crate.*

4.4.3. Crate Labeling

Go to the web site www.usfirst.org/frc_regional_events

1. Obtain the printable, mandatory consignee address label from the “Shipping / Drayage” area for your event’s drayage warehouse terminal.
 - Fill in your team number and team information on the address label; make an additional 3 copies and attach one to each side of the 4 facing sides of the crate. This labeling helps the shipper and also helps the drayage company locate your crate at the warehouse and at the competition.
 - Copy and bring your completed outbound address labels to your event(s).
 - **If** you ship batteries with your robot, print 5 additional copies of the battery label, and tape one to each facing side of the crate and also label 2 sides of the battery box.
 - Bring extra plastic sleeves in case yours gets damaged during shipment
2. Place a plastic “sleeve” on your crate, for insertion of an Air Waybill, if appropriate. A Bill of Lading does not require a one.
3. Repeat the above items for each event in which your team participates.

4.5. INTERNATIONAL SHIPMENTS AND CUSTOMS

1. Teams shipping to international events and international teams shipping into the U.S. 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 import and export your crate.
3. Comply with the Building Restrictions/Laws Regarding Wood Materials listed above.

4.6. ROBOTS SHIPPING ACROSS A U.S. BORDER

The above sections apply to all crates. Crates crossing a U.S. border have additional limits. Recent Federal Rules apply to the crating and pallets you will use to ship crates across U.S. Borders to FRC events. Please read and comply with the sections below.

4.6.1. Wood packaging laws/restrictions

The following regulation applies to any team planning to ship its robot into the U.S. from another country. Teams that do not comply risk having their robots detained at the U.S. border by U.S. Customs and not arriving at the event on time.

The U.S. 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 guidelines call for wood packing materials used in crate construction and that pallets 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.

4.6.2. Exemptions

The following exemptions apply to the above wood packing material rules:

- Processed wood packing materials that have received more than primary processing, such as plywood, corrugated board, fiberboard, veneer, whiskey and wine barrels, strand board, etc.
- Pieces of wood less than 6 mm/0.24 inches in any dimension
- Loose wood packing material such as shavings, excelsior, etc.
- Wood packing material originating in Canada and made in Canada. (An importer’s statement may be required to document the origin of the wood packing material).

4.6.3. Related Web sites

- a. Refer to www.cbp.gov/xp/cgov/import/commercial_enforcement/wpm/ for specific information on the recent stages of implementation. This site has:

- * Examples of the regulatory stamps.
 - * A Questions and Answers section for clarification.
- b. Contact your local FedEx office for additional information and assistance. You can also find information at: <http://fedex.com/us/promo/woodpackaging.html>

4.6.4. Rules

All international teams, or U.S. teams shipping out of the U.S. and then back into the Country, must do the following to comply:

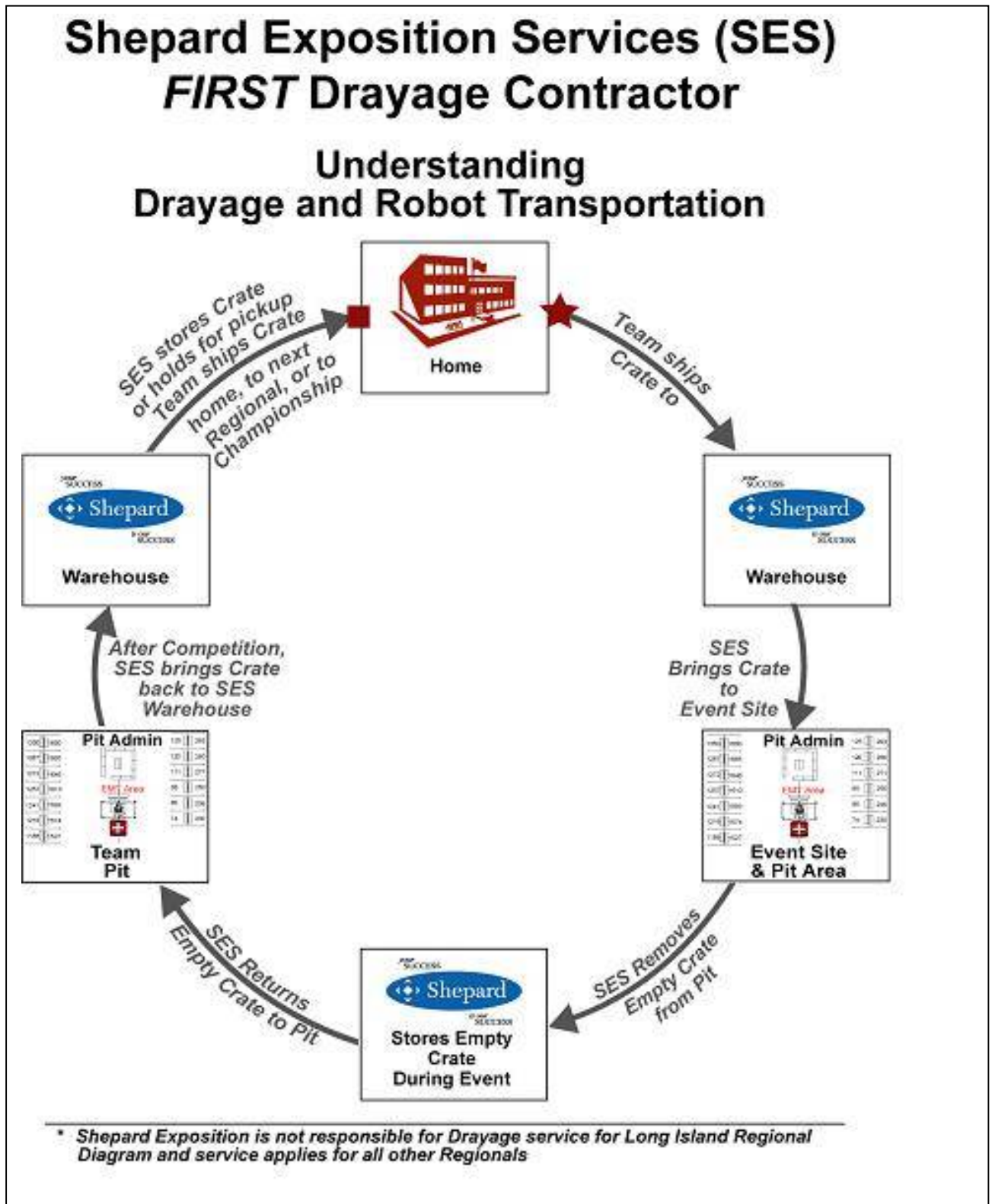
- Use only plywood or other exempted wood materials when constructing their shipping crates and robots.
- If using raw wood materials such as 4"x4", 2"x4"s, 1"x boards, etc., obtain the materials from a lumber dealer who sells compliant wood products.
- Be sure the wood is marked with the approved international 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.

4.7. SHIPPING AND DRAYAGE DEFINITIONS

- Bill of Lading** A receipt given by the carrier to the shipper acknowledging receipt of the goods being shipped and specifying the terms of delivery
- At Drayage Deadline** Latest date and time you can have your robot delivered to drayage facility. Find your initial event deadline in the "Shipping / Drayage" document. This deadline helps ensure that robots arrive at drayage in time for competition.
- After initial event, robots are due at the drayage facility on Monday before the event unless you make prior arrangements with the drayage company
- Drayage** In our case, drayage refers to the system of accepting the delivered crate(s) into the drayage terminal, crate storage, crate delivery to the event site, and delivery back to the drayage terminal for outbound shipping.
- Drayage Companies** Temporary warehousing companies. They take in, store, deliver, and document movement of event materials. In our case, the Drayage Company receives and documents team crate weight and arrival time, then stores them until delivery to the event site Pit Stations on the day prior to the event.
- Material Handling Authorization & Transportation** Shepard Exposition Services requires you to fill one out in order to keep track of your crate(s), whether you ship with FedEx or the Shepard Logistics designated carrier. You will receive a copy to help you track your crate.
- Pro Number** A number on the Bill of Lading used to monitor/track the shipment movement
- Ship Deadline** The robot crate must leave the team's possession by delivering it or shipping it to the drayage facility. This deadline helps ensure that teams have equal robot work time.
- Shipping** In this case, the term "shipping" refers to the transportation of your crate(s):
- To the Drayage Company/warehouse.
 - From the Drayage warehouse to the next event's Drayage warehouse.
 - Home after your last event.
- Tracking Number** A number on the FedEx Express Air Waybill to monitor shipment movement.

4.8. VISUAL DEPICTION OF SHIPPING / DRAYAGE PROCESS

Please take a look at the figure below. It provides a visual of the flow of a team's crate shipment.



4.9. 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 crates, both crates must adhere to specifications and deadlines. Teams are responsible for paying for ALL charges at the time of shipment.

4.9.1. Robots MUST Ship Through the Drayage System

In order to keep track of robots and 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 Shepard Exposition Services. Please use this link for planning your shipping: www.shepardes.com/first

Teams must also use Shepard Exposition Services to ship their robot and crate(s) home and are not permitted to transport them home themselves. 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 15, 2008** to allow for processing. Make the request clear and provide the:
 - Subject line: "Robot Removal, "Name of Event - Team XXXX (your team #)"
 - Reason for the rule variation
 - Event from which the robot would be taken
 - Description of the vehicle you will use to transport your robot and crate

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 Robotics will review each case and will provide a written response. This decision will be final.

If permission is granted, you will have to present the confirmed, written allowance to the **Event Manager on the first day of the event** so a plan can be in place. *FIRST* will notify the Event Manager of the exception so he/she will already be aware of the situation. The Pit Administration Supervisor can locate him/her for you.

PLEASE NOTE:

- 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.

4.9.2. Shipping to Your Initial Event

You may choose any carrier or you may drive your crate to the drayage warehouse for your initial event only. (For subsequent events, use only the Shepard Exposition Services carrier OR if you have not yet used it, the complimentary shipping with FedEx).

- Locate "Shipping and Drayage" information for your initial event on the *FIRST* Web site, "Event" area www.usfirst.org/frc_regional_events
- Read and follow the instructions
- Print the related shipping labels for your crate(s).
- Refer to section below regarding donated shipping information web sites.
- Make shipping arrangements well before the ship deadline.

- NOTE: You will need the total weight and dimensions of your crate and its contents for an accurate estimate. Obtain the best shipping rate to the drayage warehouse if you are not using the complimentary FedEx Freight ship option.
- Your truck must have a 48” bed height if you drive your crate(s) to the warehouse.
- 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.
- Obtain a dated receipt from your carrier. Retain all shipping documents and pro numbers so you can track your shipment and provide the required information for the mandatory shipment verification to *FIRST*.
- Print, read, and save all relative sections of this manual and web area relating to the FedEx Freight shipping donation and paperwork from the “Shipping and Drayage” web site area for your outbound shipment. Bring them to your event.

4.9.3. Event to Event Shipping - Two Choices

Remember to print/bring the consignee shipping address labels to each event in which you compete. Crates will return to the drayage terminal and ship from there on Monday.

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

- A. Shepard Exposition Service and its Logistics carrier. Go to the web link and follow directions for your quote. www.shepardes.com/first
OR
- B. The FedEx Freight complimentary shipping for ONE crate to ONE Regional, the Championship, and back home. Bring the supplied Bill of Lading with you to the event on the last day of the event.

4.9.4. Crate Shipment Deadline and Requirements

ALL team robots/crates must leave the team's hands by February 19, 2008. This date applies whether you ship your crate(s) or drive it/them to the drayage facility. The crate(s) must arrive at your team’s initial event’s drayage warehouse by Monday, February 25, 2008.

NOTE: Teams must work within the business hours of the shipper and drayage facilities.
Hours: Monday – Friday, 8 a.m. to 4 p.m., including the Shepard Exposition Services warehouses.

- A. If you ship your robot, obtain written proof from your shipper that shows the date that the shipper took possession of your crate. Read below for rules to “Verify Initial Crate Shipment.”
- B. If you drive your robot to the drayage terminal, ask for written proof that shows the date you delivered your crate(s). Read below for rules to “Verify Initial Crate Shipment.”
 - *Drayage personnel will not unload personal vehicles.*
 - Your delivery vehicle must have a **48” bed height** or you will be turned away at the warehouse!

4.9.5. Mandatory – Verify Initial Crate(s) Shipment

FIRST requires every team to document the shipment of its crate(s) for its initial event. All crates must ship from event to event thereafter. Teams will disqualify themselves from aspects of the competition for failure to adhere to the rules and deadlines. It is your responsibility to track your robot.

Please follow the instructions below for your chosen shipment method.

4.9.5.1. If You Ship Complimentary FedEx

FIRST recorded Bill of Lading and Air Waybill numbers and will verify that your shipment left on time.

4.9.5.2. If You Drive Your Robot to the Drayage Facility

- a. Ask the drayage warehouse personnel to put the time and date of drop off on an official receipt.
- b. Write your team number on the receipt.
- c. Make a copy and retain for your records.
- d. Address the envelope as shown below, using all capital letters.
- e. Send the receipt to *FIRST* so it arrives by the following Monday.

4.9.5.3. If You Use an Alternate Shipper

Obtain a receipt from the shipper and ensure it clearly shows the date and time the crate(s) left your team's hands.

- a. Write your team number on the bill of lading/receipt.
- b. Make a copy for tracking purposes and retain for your records.
- c. Provide shipping verification to *FIRST* so verification arrives the following Monday.

4.9.6. Verification Mailing Address – Use capitals please.

YOUR TEAM # and EVENT NAME AND EVENT DATE

TEAM SUPPORT
FIRST ROBOTICS
200 BEDFORD STREET
MANCHESTER, NH 03101

4.9.7. Consecutive Weekends

You cannot use the FedEx complimentary shipment donation 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!*

FIRST discourages teams from competing in events on consecutive weekends if they are more than 1,000 miles apart. To have your robot ship and arrive at the next event on time, make arrangements with Shepard Exposition Services Logistics early to help ensure timely arrival. This is your only option.

Contact your event's Drayage Company(s) well before both competitions to see if it can/will ensure a timely shipment and extend the Monday crate arrival deadline for your team.

4.9.8. Delivery Deadlines

Each event has an "at drayage" deadline. Refer above to "Definitions." Make sure your shipper is aware of the deadline so your crate will meet it. Find the crate arrival deadline for each event by referring to the web site *Events* section. Crates must arrive at the drayage site by the Monday before the team's next event, unless you make prior arrangements with the drayage company.

4.10. FEDEX® FREIGHT SYSTEM COMPLIMENTARY SHIPPING

FedEx has again graciously agreed to partner with *FIRST* and donate specific robot crate shipping via the FedEx Freight System. *FIRST* expects all teams to follow the instructions carefully and become familiar with any changes made to the donation in order to accommodate the increasing number of teams in the FRC program.

The most obvious change is the change in FedEx service branch for most U.S. teams.

Those in the contiguous forty-eight states will benefit this season from the kindness and generosity of FedEx Freight. Specifics will be available on our web site.

4.10.1. The 2008 FedEx Donation

FedEx Freight will ship your crate to the Regional of your choice and ship it back “home” as the second benefit. If your team is registered to compete at the Championship, FedEx Freight will also ship your crate to the Championship.

Registered for/Competing in: Regional Event(s) Only
<i>ONE</i> crate to any <i>ONE</i> Regional <i>ONE</i> crate home

Registered for/Competing in: Regional Event(s) & The Championship
<i>ONE</i> crate to any <i>ONE</i> Regional <i>ONE</i> crate to the Championship <i>ONE</i> crate home

NOTES:

- You cannot substitute your complimentary shipment “home” for a shipment to another Regional.
- You cannot take your robot home from any event, including the Championship. You must ship your crate(s) unless you have been granted an exception by the deadline.
- Because of the FedEx donated shipment volume, it could take a month or so until you receive your crate after the Championship, so if you have an event scheduled for your robot, you may want pay for the Shepard Exposition Services Logistics carrier to ship your crate home.

4.10.2. Weigh the Donation Value

Which event will give your team the most value for this donation? Consider the following **if**:

- You have back-to-back events:** You cannot use The FedEx donation because it is a “ground” shipment. Crates are due at the drayage facility on Monday so there will not be enough time to make it from one event to the next drayage terminal/warehouse.
- You are registered for more than one Regional:** See if your sponsor will ship your crate to the initial event since you must use either FedEx or the Shepard Exposition Services Logistics carrier after the first event. Use the FedEx donated shipment for another Regional.
- Your initial event is close to home:** If you have the proper vehicle/bed height (48”), you could drive your crate to the drayage facility and save the donation for a different Regional.

4.10.3. Donation Differences Within the Contiguous U.S. States

Shipments within the contiguous forty-eight states will ship ‘ground,’ and shipments may take up to five (5) or six (6) days for completion, and add a day or two for inclement weather. Refer to the map for a time estimate. www.fedexfreight.fedex.com/servicemaps.jsp

- Crates will ship via FedEx Freight, NOT Express Freight.
- Your crate will ship “ground,” not air.
- Shipments will take up to **5 or 6 business** days. If applicable, add a day or two extra for weather. (Do not count the day you ship).
- Shipments require a Bill of Lading (BOL), not an Air Waybill.
- Teams will receive two Bills of Lading in a FedEx envelope as a part of their Kit of Parts pickup.
 - Bills Of Lading are not replaceable.
 - Pro Labels are pre-attached to the BOL.
 - Use the Pro Label number to track each shipment.

4.10.4. FedEx Complimentary Shipment Information and Instruction

Refer to the following for FedEx guidelines and specific information on robot shipment documentation:

Robot Shipping page, www.usfirst.org/frc_robot_shipping

Also: Event specific “Shipping & Drayage” document found on the Regional Events page, www.usfirst.org/frc_regional_events

4.11. SHEPARD EXPOSITION SERVICES FREIGHT QUOTES

Business hours for Shepard Exposition Services warehouses.- **Monday – Friday, 8 a.m. to 4 p.m.**

If you do not ship with FedEx Freight, you *must* ship from event to event with the Shepard Exposition Services Logistics carrier. To obtain a quote, please go to www.shepardes.com/first

OR

Contact Shepard Exposition Services Customer Service at (704) 394-9140

- a. Identify yourself as a *FIRST* Robotics team
- b. Provide your team number, event name, city, and state

To help with this process, **Paula Mullis** will be contacting all participating teams registered for more than one Regional event.

NOTES - SHIPPING CHARGES:

- Your shipment may have additional charges, such as a re-weigh charge.
- If your delivery area does not have a loading dock, you will need a truck equipped with a lift gate, and there is a charge for this.
- All shipments will also have a fuel surcharge at a commodity price.

4.12. DRAYAGE

Every team has to ship its competition crate(s) to the designated drayage warehouse for each event it attends. *You cannot, under any circumstances, drive or ship crates to competition sites.*

Shepard Exposition Services is the designated Drayage Company for all events except the SBPLI Long Island Regional. FESTO Corporation handles materials for the SBPLI Long Island Regional event. Shepard will handle outbound shipments after the New York City Regional.

All instructions apply for the drayage companies.

- a. Label your crate properly. If it doesn't meet required specifications, the drayage terminal may refuse it.
- b. Well ahead of shipping time, find drayage information and overweight (overage) costs for all events in which your team will compete. Click on your event at www.usfirst.org/frc_regional_events
- c. Refer to all related sections below.

4.12.1. The Drayage Companies: Functions and Services

FIRST contracts with a drayage company for each event to provide the following services to:

- a. Provide *FIRST* with a system to monitor on-time crate arrival
- b. Provide robot storage prior to the events
- c. Ensure on-time crate delivery to team Pit stations at the competition sites
- d. Provide storage for empty crates at the venue
- e. Provide a staging location for outbound shipments
- f. Protect staff and teams from crowded load-in and load-out situations
- g. Comply with venue contracts, which prohibit the acceptance of shipments on site

4.12.2. Drayage Company Regulations

Teams cannot take their robot/crate(s) home from any event, even their last without pre-approval from FIRST Headquarters. Drayage personnel are not allowed to, and will **not**, load your crate onto your vehicle.

- **All shipments must be prepaid:** The Drayage Warehouse will not accept Cash on Delivery (COD) shipments. Teams must take care of this with the carrier prior to sending a shipment to a drayage site.
- **Use only designated shippers:** Teams must:
 - a) Use the Shepard Exposition Services Logistics carrier or the complimentary FedEx when shipping from ALL events.
 - b) Fill out required paperwork and return it to the drayage desk when shipping from an event.
 - c) Make on-site arrangements for shipping through the Shepard Exposition Carrier representative when not using FedEx.

Freight Bills, Weight Receipts: Shipments received without freight bills or specified unit counts on receipts will be delivered to team Pit Stations without guarantee of piece count or condition. When receiving freight, the drayage terminal requires that drivers submit a *certified weight receipt* and reserves the right of refusal to unload shipments without it.

Bills of Lading: All shipments must have a Bill of Lading or delivery receipt showing:

- a. Number of items, weight, and description of merchandise
- b. All Items labeled per Regional/Championship event specifications
- c. When shipping from an event, fill out a Bill of Lading. If shipping with FedEx, also provide a FedEx tracking or pro number on the Shepard form.

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.

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 four hundred 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 within the specified time.*

4.12.3. Freight Overage

All teams must pay for drayage overage in advance, prior to the competition. If a team refuses to pay overage charges, the drayage companies may refuse return of the team's crate until payment is reconciled at the service desk. Upon payment receipt, it will return the crate(s).

Provide a *Payment Authorization Form for the Shepard Exposition Services warehouse*, for each event if you know your crate will be overweight.

- Download the form, which is part of your "Shipping / Drayage" information for your event(s). www.usfirst.org/frc_regional_events.
- Fill it out completely and fax it to (704) 398-0914.

4.12.3.1. Accepted Payment Forms for Shepard Exposition Services:

All overage payments are due at Shepard Exposition Services 15 days post event.

- MasterCard, Visa, or American Express are accepted credit cards for overage fees:
- School check - the check must arrive at Shepard Exposition Services *before* the team participates in the event.

4.12.3.2. Immediate On-site Weight Complaint Resolution

Because of safety requirements, crates are removed from the Pit as early as possible. Adhere to the following schedules for resolving weight complaints.

Regional Events: 7:45a.m. - 8:30a.m.

Championship: Wednesday, 6p.m. - 9p.m, Thursday, 7:45a.m. - 8:30a.m.

When team members arrive at the Pit Station to uncrate the robot:

- a. Read the label Shepard Exposition Services placed on your crate.
- b. If your crate shows a weight over 400 pounds, and if you have any question as to the accuracy of the weight or information on the label, *immediately* find an Shepard Exposition Services representative to ask for a re-weigh. See the Pit Administration Supervisor if you cannot find a representative.
- c. *Do not open the crate until you have received a re-weigh.*
NOTE: If you open the crate, you relinquish any appeal rights.
- d. Do not leave your Pit station until the re-weigh.

4.12.4. Weight and Rates Structure

Rounding Up: Drayage Companies weigh by the hundredweight and round the weight up to the next hundred. Make a real effort to keep weight down to well below the hundred marks to allow for scale calibration differences.

Example: If your crate weighs 401 pounds, your charge will be based on five hundred pounds, and you will have to pay for a hundred pound overage for that crate. Refer to the “Events” section of the web site, click on your event and “Shipping / Drayage” for material handling rates.

www.usfirst.org/frc_regional_events

4.12.4.1. Drayage Costs - FIRST

FIRST will pay for the Material Handling (drayage) cost of *ONE* crate, *within criteria limits*, for each team, for each *FIRST* competition in which it competes this season.

Refer to *Crate Information, Crate Size, and Weight Specifications* section for specifics.

4.12.4.2. Drayage Costs - Teams

The following will cost teams money:

- a. Crate exceeding measurement or weight specifications
- b. Any additional crate. Teams pay *entire* drayage cost of additional crates

NOTE: Each team must pay for any additional material handling charges by the end of each competition.

4.12.5. Outbound Shipments from the Drayage Terminal

Shepard Exposition Services will bring crates back to its Shepard Exposition Services Advance Warehouse on Saturday after the competition. Crates will be available for outbound shipping from the warehouse on Monday, with the exception of shipping from the Championship.

NOTE: The crates from the Championship shipping via FedEx Express Freight donated shipping, will ship at FedEx convenience.

- a. Teams must ship their robots and cannot take robots or crates with them from any event, including the Championship, without prior permission by the deadline.
- b. Be sure to:
 - Ensure your crate is still fit for travel.
 - Remove the old address labels.
 - Attach the consignee address label for the next event, if applicable, to all sides of the crate...at a readable level.
 - Pre-pay for all applicable outbound shipping charges.

- At Shepard Exposition Services handled events, fill out the “Shepard Logistics Services Material Handling Authorization and Transportation Agreement.” A representative will pass out a form to each team on the last day of the event. See example next page.
- If you are shipping “home,” and the delivery site has no loading dock, note your request for a delivery truck with a lift gate in the “Special Instructions” area on the Shepard Exposition Services form. For the Long Island Regional and New York City Regional, ask where to make that note.

c) Make arrangements for the outbound shipment.

Using the FedEx donation?

- Fill out your FedEx Bill of Lading or Air Waybill.
- Attach your Pro Label or Air Waybill to your crate. Retain a copy for tracking purposes.
- Write your FedEx Pro number above the “SPECIAL INSTRUCTIONS” area on your Shepard form, and turn it in at the Shepard Exposition Services shipping desk. You will receive a copy.

4.12.6. Example of Shepard Exposition Services Outbound Bill of Lading

You will receive an outbound bill of lading from the Shepard Exposition Service desk at each event. For an example of how to fill it out for your outbound shipment, go to www.shepardes.com/first.

4.13. TRACK YOUR CRATE

FedEx Freight

You should see movement on your shipment by Wednesday after the event.

Go to www.fedexfreight.fedex.com/track.jsp

- Choose “Track by Pro Number”
- Insert your Pro number

Contact FedEx if you don’t see movement by Wednesday. (800) 463-3339

FedEx Express Freight

Go to www.fedex.com/us/expressfreight/ and choose the “Track” tab and “Track by tracking number” option.

Insert your tracking number.

Contact (800) 332 0807 if you don’t see movement.

Shepard Logistics Carrier

You should see movement on your shipment by Wednesday after the event. *For back-to-back shipments, begin tracking on Monday.*

To track your shipment:

Go to www.shepardes.com/first and choose the “Track My Crate” button OR:

Contact Paula Mullis at:

Phone: (704) 394-9140

Cell: (704) 201-2058

E-mail: pmullis@shepardes.com

For problems, contact Shepard Exposition Services Customer Service at (704) 394-9140. Provide your team number and event(s) involved

4.14. WE JUST QUALIFIED FOR THE CHAMPIONSHIP

4.14.1. What do we do? Is there a Decision Deadline?

If you are unsure whether your team can go to the Championship, you have *until the Tuesday following your qualifying event* to inform *FIRST* and Shepard Exposition Services whether you will attend and register for that event. If this is your last event, you have until Tuesday to let the drayage company know whether you will be shipping home or to the Championship. Follow instructions below.

4.14.2. Undecided? Temporary Crate Shipment “Hold, Then Ship”

If you are not sure your team can attend the Championship (CMP), read below for the “hold” process.

1. Make sure you talk with the Shepard Exposition Services freight representative at the event (or the FESTO Corporation representative if at the Long Island event – NY???)
Explain your situation and make temporary arrangements per the directions below.
 - Put an 8 ½” by 11” sign on your crate, near your BOL sticker/Air Waybill. It should say:

**Team will call.
Hold until Tuesday.**

- Consider shipping your tools if you have room and can safely pack them in your crate.
 - Teams that qualify for the Championship at an event can obtain a FedEx Freight Bill of Lading from the Event Manager. *FIRST* supplies these pre-printed, pre-recorded, official documents prior to the events.
2. Label your crate:
 - Fill in your donated FedEx Freight Bill of Lading with the team’s “home” shipping address OR the address for the Championship drayage warehouse. You can look in the FRC Manual at the Pit Administration Station for the Championship consignee address.
 - Place the Pro Number label on your crate if shipping FedEx. Keep your copy of the Bill of Lading.
 - Create and place one consignee address label on each facing side of the crate if you are shipping to the CMP.
 - Make sure you still have the battery labels, if applicable, on the four sides of your crate and the inner battery box.
 - Fill in a Shepard Bill of Lading and write your pro number on it if shipping FedEx. Save this copy also
 3. **Inform the drayage terminal of your shipping intentions by Tuesday.**
 - Follow up on your shipping arrangements.
 - Always Track your shipment.

Because of possible liability, the drayage company won’t fill out FedEx paperwork for your team.

4.14.3. We Changed our Minds

- If you find that you are not shipping to the address on your Bill Of Lading or Air Waybill, you must ship through the Shepard Exposition Services carrier and pay for that shipment. Call to make the arrangements, provide the new shipping address, and prepay the shipment.
- Always track your shipments to ensure a timely delivery.