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2017 *FIRST*® Championship Houston A-Z Guide for *FIRST*® Robotics Competition Teams

Additional information can be found on the *FIRST* Championship website:
www.firstchampionship.org



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ADA Spectator Seating: *coming soon*

Admission: There is no fee to attend the 2017 *FIRST*[®] Championship; the event and Pits are open to the public! Be sure to visit all the *FIRST* programs.

- The *FIRST*[®] Robotics Competition Championship is located at George R. Brown Convention Center on Level 1, Halls A – E.
- The *FIRST*[®] Tech Challenge World Championship, *FIRST*[®] LEGO League World Festival, and *FIRST*[®] LEGO[®] League Junior World Festival Expo are at George R. Brown Convention Center on Level 3.
- *FIRST* Championship Welcome Party is located on the Discovery Green.
- *FIRST* Championship Closing Celebration can be found at Minute Maid Park.

Alliance Scouting and Captains: Teams tell us it's a good idea to position a scout team in the audience. Record each team's specialty/strategies and provide your Alliance Captain with a list of preferred team choices if your team advances to final rounds.

Have a plan in place so your Alliance Captain can distribute Pit Crew Badges to your team in the Pit. They enable the team's crew to move from the Pit to Einstein field.

Awards Schedule (*FIRST* Robotics Competition):

Friday, 12:00 pm — Marriott Ballroom (invitation only)

- Dean's List Award

Saturday, 7:30 am — George R. Brown Convention Center – Level 1

Division Awards (2 Team Reps accept award)

- Imagery Award, in honor of Jack Kamen
- Team Spirit Award sponsored by FCA Foundation
- Creativity Award sponsored by Xerox
- Entrepreneurship Award sponsored by Kleiner Perkins Caufield & Byers
- Rookie Inspiration Award sponsored by National Instruments
- Quality Award sponsored by Motorola Solutions Foundation
- Gracious Professionalism[®] Award sponsored by Johnson & Johnson
- Industrial Design Award sponsored by General Motors
- Judges Award
- Safety Award sponsored by UL
- Innovation in Control Award sponsored by Rockwell Automation
- Excellence in Engineering Award sponsored by Delphi
- Highest Rookie Seed Award
- Rookie All Star Award



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- Engineering Inspiration Award – (note: full team comes down to dome floor for this award only)
- Chairman’s Award Finalists– (note: full team comes down to dome floor for this award only)

Saturday, 12:00 pm (or whenever playoff matches end)—George R. Brown Convention Center – Level 1

Sub-Division Playoff Awards

- Finalist
- Winner

Saturday, 4:00 pm — Minute Maid Park

Einstein Championship Matches, Awards, and Closing Ceremony

- *FIRST* Robotics Competition Outstanding Volunteer Award
- Woodie Flowers Award (if winner is in attendance)
- Chairman’s Award
- Finalist
- Winner

Badges:

Drive Team Badges: Each team will receive five (5) Drive Team badges in its registration packet. Wear the badge on the front of your shirt near the left shoulder, so referees, judges, and queuers can see it. These badges allow the wearers access to the playing field and designate:

- One (1) Coach (this badge has a white half-moon on it.)
- Four (4) Drive Team Members

Tip! Assign someone to keep the badges in a safe place, such as your toolbox, when not in use. Please do not bring them to your hotel, because teams often forget to bring them back the next day!

Pit Crew Badges (Alliance Pairings): During the playoff rounds, extra team members are often needed to move the team robot from the pit station to the queuing area and playing field. Each Alliance Team can have three (3) additional “Pit Crew” members to help with necessary robot repairs and maintenance. These badges provide access to the field. *FIRST* distributes the badges to Alliance Captains during the pairing selection process on the division fields. All teams should assume they could be chosen for an alliance. Each Alliance Captain must set a logistics plan for badge distribution prior to the pairings to distribute the badges to the Pit Crew members.

Safety Captain Badge: Each team will receive one Safety Captain Badge for this voluntary position. Please visit the “Safety” section of this document for more information.



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BrandIT Marketplace for FIRST: Brandit Marketing Solutions in conjunction with Northwest Designs will be offering new and exciting merchandise at the Championship. Cash and major credit cards will be accepted. BrandIt will be located next to the entrance to the FRC pits on Level 1 of the GRB and inside hall B on level 3.

We are excited to announce that, once again, teams will be able to add their team numbers to their purchased apparel! Teams can pre-purchase *FIRST* apparel through the *FIRST* Marketplace online store (<https://marketplaceforfirst.com/>)

Ceremonies and National Anthems: Teams are expected to attend the Opening, Awards and Closing Ceremonies to show appreciation for speakers, sponsors and teams. These events enhance the meaning of *FIRST*. Please graciously observe the playing of all anthems by standing and remaining silent. We ask that you show respect for all countries in attendance.

Chairman's Award Interviews: Sign up on Thursday morning 7:00am - 8:30am Teams must come to the Hall of Fame booth on Thursday to sign up for an interview slot. Interview times and locations are filled on a first come, first served basis. There will be three Chairman's Award interview rooms.

All interviews for the Chairman's Award will be conducted on Friday from 9:00 am - 6:00 pm. (Note: The interview times available to teams for sign-up will be pre-determined by the Judges). To avoid schedule conflicts, we recommend that interviewees are not on the drive team. Swapping interview times is not encouraged, but if you must change your time, switch with a team (once you have their consent) that is assigned to the same interview room as you and notify the Judges through the "Judge Assistant/Chairman's Room Runner", who will work with the teams and keep Judges apprised of changes.

Tip! It's best not to use match lists as a determining factor, since matches do not always occur on schedule.

Championship Attendee Registration: *FIRST* requires every Championship attendee to be registered and badged, including adult team mentors, youth team members, parents, family members, chaperones, etc. who are attending the event. Attendee registration grants access to each event as well as event transportation, and increases the security of the multi-venue event.

We strongly encourage your team to complete the attendee registration prior to your arrival in Houston, as this will expedite your team's attendee badge collection.

To begin the attendee registration, please go to:
<https://registration.experientevent.com/showrob173/flow/team#>

Tip! If you have any competition/*FIRST* Robotics Competition Championship-specific



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questions, see Pit Administration for assistance.

Check-in at Pit Administration:

Wednesday, 1:00 pm - 8:30 pm

Thursday, 7:00 am - 8:30 am

Teams' Main and/or Alternate Contacts must check-in at Pit Administration. At check-in, you will receive your team's registration packets. These packets contain important items such as driver badges, media passes, team lists and more!

Crate Weight Complaint Resolution Times: After your crate has been emptied, notify Shepard Exposition Services (SES) that your crate is ready for storage.

Please note: Any weight above 400 lbs. will be assessed at a specific price per 100 lbs. by SES. Before opening your crate, check the weight on the Bill of Lading on the side of your crate. If you feel that the weight is incorrect, please go to the SES desk as they will weigh the crate in front of you for clarity.

Concessions: There are concessions located within the convention center, with many food options around the George R. Brown Convention Center as well.

Consent and Release Forms and Team Roster: During check-in, teams must provide a team roster and any paper copy Consent and Release Forms for students or mentors that did not complete the form electronically. If under 18, consent and release forms require a parent/legal guardian's signature. See this link for complete details: <https://www.firstinspires.org/resource-library/youth-team-member-consent-and-release-form>

Directions:

To the George R. Brown Convention Center: The George R. Brown convention center is located on Avenida de las Americas. For detailed directions, click https://res-5.cloudinary.com/simpleview/image/upload/v1/clients/houston/GRB_Driving_Directions_1cff2f09-db31-4e3e-8d84-bc11c061e8f3.pdf. Or, visit the venue site here: <http://www.grbhouston.com/>

To Minute Maid Park from the Convention Center on foot:

- Head northeast on Avenida De Las Americas toward Mc Kinney
- Turn left onto Rusk St
- Turn right onto Crawford St
- Minute Maid Park will be on your left.

Division Awards and Alliance Selections: Saturday at 7:30 am in the George R. Brown Convention Center – Level 1. Each team will need to send two representatives to the floor in



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front of their assigned field by 7:15 am. One of these two representatives will be responsible for Alliance Selection.

Division Breaks: Each Division has been assigned a 2 hour break on Thursday, Friday and Saturday. Please use this time for lunch. Also take time to visit the Alliances, Innovation Faire, Scholarship Row, Sponsors, and other *FIRST* programs.

Dress - Appropriate and Safe: Be aware of apparel and hair safety issues while working on your robot. Sandals, open-toed shoes, and Crocs are not allowed in the Pit. Wear relaxed, fun and appropriate clothing; remember, you represent your team and *FIRST*. Body paint in lieu of clothes is not appropriate. Bathing suits and other revealing clothes are not appropriate.

Driver's Meeting:

Wednesday, 5:00 pm

The Driver's Meeting will take place in the George R. Brown Convention Center – Level 1. Please sit in the Galileo field stands

Einstein Field Access - Saturday: *Details coming soon!*

FedEx Shipping Document process (for transporting your robot home):

Schedule coming soon!

Due to the number of teams, *FIRST* Robotics Competition teams can expect to receive their robot/crate within 4 - 8 weeks after the *FIRST* Championship. Teams competing at off-season events in May and early June should consider transporting robot/crate home themselves. Please contact firstroboticscompetition@firstinspires.org or a Robot Removal Request form. **Only teams who have received prior approval from *FIRST* will be allowed to remove their robots from the event.**



Robot removal requests are due by Friday, 4/14/17.

Teams approved to remove your robot from the event will not have access to the loading dock, and must dismantle and remove your crate completely.

Field Measurement:

Wednesday, 3:30 pm - 4:30 pm

The Division Fields in the George R. Brown Convention Center – Level 1 will be open on Wednesday from 3:30 pm – 4:30 pm for team field measurement. A driver's badge (which is provided in the team registration packets received at Pit Administration) is required in order to



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access the fields.

Final Rounds: Refer to Section 10 of the Game and Season Manual (<https://firstfrc.blob.core.windows.net/frc2017/Manual/Sections/10-Tournaments.pdf>) for information about Alliance Selection, playoff and final rounds, tournament rules and the Championship match ladder.

FIRST Alumni Mixer:

Thursday, 7:30 pm - 9:00pm

Join us at the George R. Brown Convention Center, Level 3 (outside of Innovation Faire) to meet and connect with fellow *FIRST* Alumni from around the world. This event requires an RSVP (space is limited) here: [RSVP here](#)

(<https://app.smartsheet.com/b/form?EQBCT=3dc80b192af24ece8698464761b13675>)

FIRST Championship App: Use the *FIRST* Championship App for interactive maps, personalized schedules, activities, team info, alerts, and more:

<https://www.firstchampionship.org/event-app>

FIRST Championship Conferences: The *FIRST* Championship Conferences will be held on Wednesday- Friday. The conference includes:

- Sessions and workshops. Sessions are 50 minutes and workshops are 110 minutes.
- Topics that have been expanded to include areas of interest for all four *FIRST* programs.

FIRST Closing Ceremony:

Saturday, 4:00 pm-8:00 pm, Minute Maid Park

Details coming soon!

FIRST Innovation Faire: All team members, mentors and parents, join us for a Maker Faire-inspired area on Level 3 of the George R. Brown Convention Center. A dedicated venue for exhibitors to connect with all *FIRST* Championship attendees. Supporters create engaging spaces with hands-on, interactive, innovative and educational content. This is a great opportunity to learn about our supporters, new products and share in educational activities.

Hours:

- Wednesday: 11am – 5pm
- Thursday: 10am – 5pm
- Friday: 10am – 4pm



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Career and Internship Day at Innovation Faire

All team members, mentors and parents

Select Supporters exhibiting at Innovation Faire will be bringing their Human Resources staff to chat about Internships and Career opportunities at their companies. Come learn about these great supporters and how they might be a part of your future.

Hours:

- Friday: 10am – 4pm

FIRST LEGO League and FIRST LEGO League Junior: We encourage you to visit the *FIRST* LEGO League World Festival, located on Level 3 of the George R. Brown Convention Center. Their Pits are open Wednesday through Saturday. The *FIRST* LEGO League Awards Ceremony will take place on Saturday at 3:30 pm. For more information, visit the *FIRST* LEGO League section of the *FIRST* Championship website: <https://www.firstchampionship.org/first-lego-league-houston>.

The *FIRST* LEGO League Jr. World Festival Expo will also be taking place on Level 3, Friday and Saturday. For details about the event, visit: <https://www.firstchampionship.org/first-lego-league-jr-houston>.

FIRST Tech Challenge: The *FIRST* Tech Challenge World Championship will be held on Level 3. Teams check in on Wednesday morning from 6:00 am -- 8:00 am, with early bird check-in on Tuesday at 5:00 pm. Qualification Matches will begin at 2:00 pm on Wednesday, and will run on Thursday, Friday and Saturday as well.

The *FIRST* Tech Challenge Division Finals, Final Matches, Competition Awards will be held at Minute Maid Park at 4:00 pm on Saturday. Please refer to the spectator schedule for additional information: <https://www.firstchampionship.org/first-tech-challenge-houston>.

FIRST Robotics Competition Sub-Divisional Team Viewing: Details coming soon!

FIRST Robotics Competition Team Load In: Please find details about Load-In here: https://www.firstinspires.org/sites/default/files/uploads/resource_library/championship/2017-frc-championship-load-in-houston.pdf If this link doesn't work for you, please copy and paste the complete address into your browser and try again.



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FIRST Robotics Competition Teams – “Check Out” and Load Out Instructions:

CHECK OUT INSTRUCTIONS

Friday, April 21, 2017:

Step #1: An adult mentor from the FRC team must visit the *FIRST* Shipping Desk located at the rear of the *FIRST* Robotics Competition Pits during the designated time frames below. The mentor will sign the relevant shipping documentation and receive a copy with tracking number for the team’s record. The mentor will also be provided a Zone Sticker that must be taped to the front of the robot crate. If the team is approved for a robot removal request the mentor will also receive a Carry Out ticket. Replacements are not available.

SUB-DIVISION	THURSDAY	FRIDAY
Carver	1:00 PM – 2:00 PM	9:00 AM – 10:00 AM
Newton	1:00 PM – 2:00 PM	10:00 AM – 11:00 AM
Galileo	2:00 PM – 3:00 PM	11:00 AM – 12:00 PM
Roebing	2:00 PM – 3:00 PM	1:00 PM – 2:00 PM
Hopper	3:00 PM – 4:00 PM	2:00 PM – 3:00 PM
Turing	3:00 PM – 4:00 PM	3:00 PM – 4:00 PM

Step #2: After picking up the FedEx shipping document, teams shipping their robot crate will then need to visit the Shepard Exposition Services Desk to pick up a Shepard Payment Authorization form and a Shepard Bill of Lading. Both forms are required by Shepard Exposition Services.

Saturday, April 22, 2017:

Step #3: Visit Shepard Exposition Services (SES) desk to request the return of your robot crate. Please bear in mind that SES will need to return 400 robot crates. The earlier you make your request the sooner your robot crate will be returned. Robot crates will start being returned to teams on Saturday after 9:00 am.

Step #4: Remove all old shipping documents from your robot crate. Attach the completed and signed FedEx shipping document and Zone colored sticker to the front of the robot crate.

Step #5: Once the crate is packed and sealed return to the Shepard Exposition Services Desk and turn in the completed Shepard Payment Authorization form and all copies of the Shepard Bill of Lading.

Carry Out Request Process – Teams may request to Carry Out their robot and robot crate from the Championship venue rather than having their robot shipped home. To pre-approve



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your team for Carry Out, email firstroboticscompetition@firstinspires.org and request a Robot Removal Form. **Carry Out requests are due by Friday, 4/14/17.**

Carry Out / Robot Removal Approved Teams – An adult mentor from the team must visit the *FIRST* Shipping Desk during the designated time frames above to collect a Carry Out ticket. Teams that Carry Out their robot must also carry out their robot crate or submit a request to Shepard Exposition Services to destroy their crate. There is a \$150.00 fee for any team that leaves an empty robot crate behind. **Robot crates will only be allowed to ship containing the team's competition robot – there are no exception for shipping empty crates.**

The Carry Out ticket **must** be handed to a check out volunteer at the Chartres Street rolling doors when you exit the George R Brown Convention Center during load out.

LOAD OUT INSTRUCTIONS

Team load out will begin Saturday at 8:30 am. The Pits close at **3:00 pm on Saturday** and all teams must have shipping preparations completed before then. So the process is not left to the last minute, appoint a crew to this task prior to the event. This will help clear the Pit on time and will help ensure that your team gets to participate in the *FIRST* Finale.

One (1) of this crew must be a post-high school adult. Begin packing your crate as soon as you know your team is no longer competing. If you are shipping your robot home, you **must** ship your robot/crate(s) through SES.

Only teams still competing in the *FIRST* Robotics Competition Championship Matches will be allowed to have items in their pits. All other team pit spaces must be cleared by 3:00 pm.

Step #1 - On Saturday, April 22nd team vehicles for load out need to wait and stage at the Marshalling Yard located at 58 N. Hamilton Street, Houston, TX.

Step #2 - When your team is packed and ready to load out, please send one (1) representative to the *FIRST* Shipping Desk. Your team will be added to a load out inspection list. A checkout attendant will visit your pit to verify that your items are ready to load out and call out to the loading dock.

Step #3 – Your team will be provided a loading dock space number. Please call your driver and have them leave the marshalling yard and proceed to the Gate B entrance on Chartres Street and continue to the assigned loading dock space number. Team vehicles need to arrive within 10-15 minutes from your call.

Step #4 – Move your load out items to the assigned dock space number. If you have received



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a Carry Out ticket, please give this to the checkout attendant at the loading dock doors on your way out. Only teams who have received prior approval from *FIRST* will be allowed to Carry Out their robots from the event.

Please be respectful of other teams and the public in your departure, leave your area clean, and be safe! You will be asked to move your items on the loading dock if it sits for more than 20 minutes by the building security, staff, and or volunteers.

Hall of Fame: Visit the Hall of Fame (HOF) booth, home of previous *FIRST* Robotics Competition Chairman's Award Winners, located in front of the entrance to the *FIRST* Robotics Competition Pits. The Chairman's Award represents the spirit of *FIRST*, and remains *FIRST* Robotics Competition's most prestigious award. The HOF booth will also have the Chairman's Award Clock and Woodie Flowers Award on display for viewing. This is a great opportunity for you to interact with some of the top *FIRST* Robotics Competition teams and learn what it takes to become a HOF team!

Inspection: Remember that qualification matches begin at 8:30 am on Thursday. You will want to start the inspection process as soon as possible. Weigh and measure your robot early to help the inspection process move faster. The Inspectors often spot problems and provide suggestions for correction. Your robot must pass inspection to compete, but it does not have to be complete in order to request a preliminary inspection.

Lost and Found: Bring found items to the ESCO room. All lost and found items will stay at the venue for 30 days. Be sure to inventory your items before you leave to ensure that you are reconnected with any missing pieces. The ESCO room will be located in Ticket Booth E. Lost and Found will be available from 6:00 am to 10:00 pm all week.

Machine Shop: Once again, NASA is graciously sponsoring and managing the *FIRST* Robotics Competition Machine Shops. Refer to the Pit Map to see the locations and the Agenda for the schedule. Please remember that there is no grinding, braising, or welding in the Pit.

Mascots: Keep safety in mind. Make sure that mascot and team costumes are safe for the wearer as to vision and movement and are comfortable and cool enough to prevent fainting and dehydration. Mascots are not allowed on the playing field.

Media Passes: Each team will receive one (1) non-transferable Team Media Pass and related instructions/caveats in its registration packet. Media representatives are permitted in designated media access areas around the playing field only during their team's Qualification and Sub-Division Playoff Matches. The directions of Playing Field Supervisors must be followed at all times. Team Media are not permitted on: the actual playing field surface; in areas marked off for human players; in any private venues or VIP, Volunteer, or Judges' areas, or the *FIRST* Media Center for professional, bona fide media. Mascots will not be recognized as an official team media person. Due to space constraints and limitations, Team



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Media will **not** be allowed on the field or pit area before or during Einstein Championship Matches.

Mentor/Coach Breakfast Celebration Sponsored by Booz Allen Hamilton & National Instruments:

Friday, April, 21st, 7:00 am

The Mentor/Coach Breakfast will be taking place on Friday at 7:00 am in the General Assembly Theater on the 3rd level of the George R. Brown Convention Center. The program includes guest speakers and great networking potential. This is a cross-program event for all *FIRST* Mentors and Coaches.

Parking: Parking is available around the George R. Brown Convention Center.

- Surface Lot Information: <https://www.downtownhouston.org/parking/>
- Garage Parking Information: https://www.firstinspires.org/sites/default/files/uploads/resource_library/championship/2017-first-championship-houston-parking-information.pdf

Non-Medical Incident Reporting: Report incidents relating to safety or *Gracious Professionalism*[®] to any program's Pit Administration area.

Pit Announcements: In an effort to keep announcements to a minimum, we will group together parts requests for announcement every 15 minutes. To submit a request, please write your division, team number, and needed part on a piece of paper and give it to the Pit Administration staff. Additional announcements will be made at half hour intervals. Please note: Announcements are for event related purposes only. No personal announcements will be considered.

Pit Closing: EMTs leave the premises at Pit closing time. For your team members' safety, please be respectful of the Pit closing time each day. For the Saturday closing, we request that only essential team members be in the pit to handle the pack up, the rest must wait outside the Pits at a designated location to keep aisles clear for freight movement and team load out.

Pit Hours: *FIRST* Robotics Competition Pit Hours are as follows:

Wednesday 1:00 pm - 4:00 pm (Team Load-in, 5 Team Reps only)

Wednesday 4:00 pm - 8:30 pm (open to all team members and the public)

Thursday 7:00 am - 5:30 pm



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Friday 7:00 am - 7:00 pm
Saturday 6:45 am - 3:00 pm

Pit Safety and Age Stipulation: Children aged twelve (12) and under must have an adult, aged eighteen (18) or older, with them at all times.

Pit Stations: Each team has approximately the same Pit space. Extending beyond your Pit space is not allowed. Aisles must be clear for crate movement, safety, and queuing reasons, so we suggest that team members watch the matches and cheer on the teams instead of overflowing the pit stations into the aisles. There is a ten foot (10) height limit. Structures, signage, or banners cannot be higher than ten feet above the floor. Do not build any structure that supports people or stores items above the work area/pit space. If the height exceeds ten feet, you will be asked to take it down. No advance placement requests are available. Positioning is random. No requests for displays, additional tables, Pit locations, division assignments, meeting rooms, or additional space will be considered. Teams may not expand their pit activities to unused pits.

Practice Fields: There will two (2) complete Competition Fields, as well as several carpeted areas of Practice Fields available to teams. Safety glasses are required at all times on all Practice Field spaces. Please see the new Event Rules in Team Update 21 about teams bringing their own Practice Field Materials, as well as practicing with their robots in their pits.

Please note the complete Competition Fields will be modified slightly:

- The boilers will NOT have the serializers included, which means there will not be any automatic fuel scoring on the Practice Fields. There will simply be buckets inside the boiler to collect fuel. The boiler will be as it is on the competition field, including the vision targets.
- The airships will have active gear trains (gears will spin as normal), but the rotors will NOT be active. There will not be any automatic rotor scoring on the Practice Fields.
- Touchpads will work as normal on the competition fields. (Automatic scoring will be active.)

Teams may only practice with their robots in their pits or in designated practice areas, and may not set up their own practice elements outside their pits. See <https://www.firstinspires.org/resource-library/frc/event-experience> for more details.

Practice Matches: *Coming Soon!*

Pre-Order Lunches: Teams are able to pre-order lunches from the venue: <https://www.firstchampionship.org/sites/default/files/plan-your-visit/2017-houston-pre-purchase-lunch-order-form.pdf>.



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Queuing: Teams are responsible for knowing their match times and will have to queue 30 minutes prior to their matches without the help of an announcer. Teams need a minimum of 15 minutes to travel from their Pit space to the playing fields. Please leave extra time to get back and forth between the pits and playing fields.

For qualification matches, we will run “dynamic scheduling.” *FIRST* will make every effort to keep close to the published schedules. Keep close watch of the pit display for any moment-to-moment changes. Please do not expect audio queuing to prompt you — you are responsible for your own schedule.

Robot Service Center: The Robot Service Center is in the *FIRST* Robotics Competition Pit area next to Pit Administration. It is an opportunity for you to seek technical help, spare parts, or assistance with repairs from Kit of Parts Suppliers. General hours are listed below, but see table for any Supplier specific variances.

- Wednesday 4pm-8:30pm
- Thursday 7am-5:30pm
- Friday 7am-7pm
- Saturday 6:45am-12:30pm

Even if you don't need their help, we encourage teams to check in and thank them for their support. Thank you!

WHO	WHAT	ALT HOURS?			
		Wed	Thur	Fri	Sat
ANALOG DEVICES, INCE.	Support on using the ADI Kit of Parts and <i>FIRST</i> Choice sensors, also be helping teams understand how inertial sensors work, and support all languages, specializing in LabVIEW. We will also have demonstrations of how these devices are used in other applications.	6p-8p	8 ³⁰ a-11a 1p-4p	8 ³⁰ a-11a 1p-4p	8 ³⁰ a-10 ³⁰ a
ANDYMARK, INC	Staff will be available to answer questions and assist, as needed at the event.				7a-12p
AUTOMATIONDIRECT.COM	Expertise, parts (overnight shipping), demos and hands-on demos of tools and products.				



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CLIPPARD INST. LAB.	We will have pneumatic components to help teams in need of replacements from damaged components that occurred during competition.	4p-6p	9a-5p	9a-5p	closed
CONTROL SYSTEM ADVISORS (CSA)	The orange hatted people from your local events will be on hand for control system support, with their home base here in the RSC.				
CROSS THE ROAD ELECTRONICS	FRC team support for Cross the Road Electronics' products.	4p-8p	7a-5p		7a-12p
KAUAI LABS	technical software support for navX-MXP, navX-Micro and SF2, as well as hardware support for navX-MXP and navX-Micro.	closed		7a-6p	7a-12p
MISUMI USA	2 Mechanical Engineers well versed in power transmission and pneumatics will be on hand for technical help and advice. We will also have a variety of MiSUMi spare parts including collars and bearings.		8 ³⁰ a-5 ³⁰ p	8 ³⁰ a-6p	7 ³⁰ a-12 ³⁰ p
NATIONAL INSTRUMENTS	Control system support with focus on roboRIO and LabVIEW.				
NVIDIA	For any hardware or software technical issues with our product, Jetson TK1, Jetson TX1 or Jetson TX2.	4p-7p	10a-5p	closed	closed
REV ROBOTICS	Technical support for products, replacements for damaged ones at the pit, hands on educational demos, and fun games where teams can get giveaways.				7a-12p
RULAND MANUFACTURING	Ruland will have spare parts in the event a team needs shaft collars or couplings. We also provide technical support to teams on site that falls within our capabilities.				TBD
SPARE PARTS	General assortment of spare parts (same as what's available at Regional/District events)				
WPI	Available to help teams solve issues, talk about WPILib futures and		8a-5 ³⁰ p	8a-7p	8a-12 ³⁰ p



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features, demonstrate using the various systems in WPILib and the tools.

Schedule and Team Lists: Print and bring the latest Championship Schedule. Also, print enough division team lists to help with your team's scouting efforts. Both documents can be found on the Championship website: <https://www.firstchampionship.org/>

Scholarship Row Presented by The Boeing Company and NVIDIA:

All team members - especially high school freshmen, sophomores, juniors, seniors and parents:

Scholarship Row at the 2017 *FIRST* Championship Innovation Faire is a place for participants, parents and mentors to talk with representatives from some of the colleges, universities and organizations that make *FIRST* Scholarships available. This is an ideal opportunity for sophomores and juniors who are planning for college to talk first-hand to college representatives. Seniors can find out about scholarships that are still available for the coming fall, and for freshmen, it's never too early to start thinking about college! For more information, please visit: <https://www.firstchampionship.org/>. In 2016, over \$25 million in college scholarships were available to *FIRST* Participants from nearly 200 Scholarship Providers.

Hours:

- Wednesday: 11am – 5pm
- Thursday: 10am – 5pm

Scoring Disputes: If a team needs clarification on a ruling or score, a pre-college student from that team should address the Head Referee after a field reset has been signaled. Depending on the timing, the Head Referee may postpone any requested discussion until the end of the subsequent match. Head Referees will only discuss calls, scores, penalties, or match outcomes with pre-college students. The Head Referee's ruling is *final*, and there is no recourse. There is no review of tape or digital media.

Security: Be sure to keep valuable items with you at all times or placed in a lockable compartment in your Pit station. *FIRST* and the George R. Brown Convention Center do not guarantee security of personal items. We strongly recommend that you do not leave behind valuable items in your Pits at any time, such as personal computers, cell phones, cameras, etc. You can report any lost items to Pit Administration (see *Lost and Found*). Remember, the Pits are open to the public. **Please take proper security measures to protect any valuable items.**



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Site Restrictions: Remember to follow the Event Rules & Expectations as outlined in this document: <https://www.firstinspires.org/resource-library/frc/event-experience>

Spare Parts: The Pit Map shows the Spare Parts location. Parts are available on a limited basis. The attendant will be able to contact a *FIRST* Technical Advisor or Lead Robot Inspector if you need approval for any of the applicable components.

Student Ambassadors: Guests are invited to take an in-depth tour of the Championship with our most knowledgeable tour guides, our students! *FIRST* Tech Challenge tours are available Wednesday, Thursday, and Friday at both events and *FIRST* Robotics Competition tours will be available on Thursday and Friday. All tours are subject to availability. Please see the registration/badging desk located outside of the Pits to set up a tour.

Sub-Division Champions and Special Seating: Coming Soon!

Sub-Division Playoff Pit Spaces: There will be assigned pit spaces for *FIRST* Robotic Competition sub-division playoff to be shared by 4 team alliances. We strongly suggest alliances work together to share the space accordingly including tools and equipment. Any pit structures cannot exceed 6 feet in height.

Transportation: Metro Transportation is available in Houston. For more information, please visit: <http://www.ridemetro.org/Pages/index.aspx> You can purchase **discount passes** on the following page: <http://www.ridemetro.org/Pages/METROOnlineStore.aspx>.

Updates and Changes: Refer to the white board in the Pit Administration area for new/updated information and listen for announcements.

Webcast: A link to the Championship live stream will be available on the *FIRST* Championship website here: <https://www.firstchampionship.org/watch-live>.

Wireless Networks: Free wireless internet access is available in the common areas of the George R. Brown Convention Center. **This access is not available on the Pit floor or in the playing field areas of the George R. Brown Convention Center – Level 1.** Due to the wireless nature of *FIRST* control systems, wireless availability will be evaluated during the course of the event. Teams will not be allowed to set up their own wireless networks at the Championship. While we certainly appreciate the positive potential team- created wireless networks could represent, there is a chance such wireless networks could interfere with planned activities during the event.