

Event Rules Manual





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General Rules

The rules below apply throughout an event, i.e. from when Load In begins to when Load Out is complete.

Universal Violation Note: A violation of any Event Rule will result in a verbal warning. Repeated or egregious violations will be addressed by the Head REFEREE, the Lead ROBOT Inspector and/or Event Management. Teams should note that egregious and repeated violations may be shared with the Judge Advisor which could lead to disqualification from awards.

Additional rule specific violations, if applicable, are listed with their corresponding rule.

- E1. Personal safety comes first.** The following safety practices must be observed throughout the event.
- A. All team members must wear safety glasses (only ANSI-approved, UL Listed, CE EN166 rated, AS/NZS certified, or CSA rated non-shaded) while in and around the playing field and in the pit area. Lightly tinted lenses are permitted provided eyes are clearly visible to others, but reflective lenses are prohibited.
 - B. All team members must wear closed toed/heeled shoes.
 - C. All team members must tie back long hair while working on or around a ROBOT or ROBOT related materials.
 - D. All team members must wear appropriate clothing.
 - E. All team members must walk in the venue.
- E2. Be a good person.** All participants must be gracious and professional at all times while attending FIRST Robotics Competition events. Uncivil behavior toward any participants is not tolerated.


Examples of inappropriate behavior include, but are not limited to the following:

- physical altercations
- inappropriate language
- bullying or harassment
- intentionally blocking the view of other participants or spectators for an extended period (team members momentarily holding up team signs while directly supporting their team is not considered a violation of this rule.)
- jamming or interfering with the remote sensing capabilities of a ROBOT or the FIELD while in open-access spectator seating areas

Examples of remote sensing capabilities include, but are not limited to, vision systems, acoustic range finders, sonars, and infrared proximity sensors.

Use of imagery that, to a reasonably astute observer, mimics the Vision Targets employed on the FIELD is a violation of E2.

We've learned that, although intended with no ill will, "clothes pinning" (a game played by some event participants where they try to clip a clothespin to an unsuspecting person) and "the circle game" can and do cause discomfort. As such, these activities are considered a violation of this rule.

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- E3. Children with adults, please.** Children under 12 must be accompanied in the pits by an adult at all times.
 - E4. Respect the venue.** Teams may not damage the venue, including but not limited to bleachers, floors, walls, railings, etc., in any way.
 - E5. Teams must check in.** An adult team member must check in at the Pit Administration station no later than ninety (90) minutes before Qualification Matches are scheduled to start.

Violation: Teams will be contacted in their pit. Failure to Check-In may result in a team not participating in the event.

Event check-in takes place at the Pit Administration station the evening before and/or the first morning of each event.

Once a team's consent and release forms are submitted at Pit Administration, each team will receive their DRIVE TEAM & Safety Captain buttons.

- E6. Some event resources for event teams only.** Only teams registered for an event may use that event's Competition FIELD, Practice Field, Spare Parts, Machine Shop, and Inspection. Host teams supplying Practice Field elements and/or Machine Shop resources may use them, provided priority is granted to teams registered for that event.
- E7. Practice only when/where permitted.** Teams may only practice with their ROBOT in their pit space, in the designated event practice areas, or while in a Practice MATCH.

Teams may not set up their own practice equipment outside their pit. When practicing in their pit, safety must remain the top priority. If Event Management determines a pit practice setup is unsafe or interferes with activity in adjacent pits or aisles, the team must discontinue the activity.

- E8. Work in designated areas only.** At the event venue, teams may only produce FABRICATED ITEMS as follows:
 - A. in their pit area,
 - B. in another team's pit area with permission from that team,
 - C. while queued for a MATCH or Practice Field (given space constraints, extra scrutiny regarding safety is required),
 - D. any area designated by Event Staff (e.g. Playoff Pit Area, etc.), or
 - E. as permitted at provided machine shops that are available to all teams.
- E9. Some things don't belong at events.** Do not bring or use the following:
 - A. skateboards
 - B. 'hoverboards'
 - C. drones
 - D. bottled gas tanks (e.g. helium)
 - E. noisy devices or noisemakers, such as floor stompers, whistles and/or air horns
 - F. walkie-talkies

G. scooters, except for those used for accommodations

- E10. Don't arrange for additional utilities.** Do not arrange for power, internet access, or phone lines from venue service providers or attempt to use venue internet connections reserved for event purposes (e.g. the Field Management System or web casting).
- E11. Don't sell stuff.** Teams may not conduct sales at an event. This includes, but is not limited to, raffle tickets, food, hats, shirts, candy, water, soft drinks, fruit, or any promotional products.
- E12. Don't give out food.** Teams may not distribute food to others at an event.
- E13. Make *FIRST* loud, but with restrictions.** Do not invite or bring live bands to play in the audience. Do not play loud music.
- E14. Flags and banners: hang with care.** Be respectful when hanging your flags and banners.
- A. Do not cover or move other team or sponsor signs already in place.
 - B. Share the available space fairly with other teams.
 - C. Do not obstruct the view of spectators.
 - D. Hang signs and banners in a safe manner.
 - E. Banners hung outside team pits must not be larger than 25 ft.² (2.3 m²).

We encourage teams to bring team flags and/or signs for display in their pits and/or the playing field area.

Respect venue-specific rules regarding sign location and hanging methods. At the end of the event, safely remove all signs and anything used to hang the signs (tape, string, etc.).

- E14-A. No firearms.** Firearms are prohibited at all *FIRST* events for all *FIRST* programs, including without limitation, [all official *FIRST* Events posted here](#). This Policy does not apply to law enforcement or venue security personnel.

Machine Shops

Some events host a machine shop, open during specific hours (see the event's agenda), to help teams with repair and fabrication of their ROBOTS. Machine shops are typically sponsored by NASA or local organizations. While the machine shops vary, *FIRST* strives to have welding and a variety of high-powered tools available at all events.

In most cases, the machine shop is on site and readily accessible to all teams. If a team attends an event where the Machine Shop is off-site, volunteers are in place to transport the ROBOT or parts to and from the machine shop. In this case, a team fills out a Machine Shop Request Form that travels with the ROBOT or parts, so the machine shop staff and volunteers can follow their directions. The event should set up a method of communication between the venue and off-site machine shop in case there are any questions.

- E15. The ROBOT goes alone to off-site machine shops.** Team members may not travel to off-site machine shops with the ROBOT being transported by volunteers.

Teams may travel to the off-site machine shop on their own, either by walking or using their own vehicle, but all student team members must be accompanied by an adult at all times. Teams should strongly consider including a third team member per the *FIRST* Youth Protection Program guidelines found [here](#).

Wireless Rules

- E16. No wireless communication.** Teams may not set up their own 802.11a/b/g/n/ac/ax (2.4GHz or 5GHz) wireless communication (e.g. access points or ad-hoc networks) in the venue.

A wireless hot spot created by a cellular device, camera, smart TV, etc. is considered an access point.

Some smart TVs have access points enabled by factory default. Please make sure that functionality is disabled for any TVs brought to the event.

- E17. Don't interfere with wireless networks.** Participants may not interfere, attempt to interfere, or attempt to connect with any other team or *FIRST* wireless communication except as expressly allowed for purposes of communicating with their team's ROBOT on the FIELD or Practice Field.

Teams are encouraged to report suspected wireless security vulnerabilities to the *FIRST* Technical Advisor (FTA) if at the event or to *FIRST* via firstroboticscompetition@firstinspires.org.

Violation: Repeated violations may lead to dismissal from event and/or legal action based on applicable laws.

- E18. Tethered operation outside FIELDS/Practice Fields.** ROBOTS may only be operated by tether when outside the FIELD or Practice Field.

- E19. Practice Field wireless via event radios only.** If operating wirelessly on the Practice Field, ROBOTS must use one of the provided Practice Field radios for communication.

Load In

Events set specific time frames, published on the event's schedule, in which teams are invited to load their robots and equipment in to their pit areas before pits officially open.

Load In can be stressful for teams and volunteers, which can be mitigated by preparation and planning. Unanticipated factors, like traffic or weather, can change a team's scheduled arrival time, making the process difficult. The most important things a team should remember are to be safe, gracious, and professional. Teams who experience smooth and easy Load Ins are encouraged to check with others to see if they can help and make their experience as positive as possible.

- E20. Load in during Load-in.** Teams may not bring the ROBOT or ROBOT elements in to the event after the designated Load-in period. Exceptions are as follows:

- A. Exceptions listed in R14 in the [2020 Game and Season Manual](#)
- B. Raw stock
- C. COTS items
- D. Gearboxes attached to associated motor(s)
- E. Assembled wheels
- F. Exceptional circumstances that result in a team not being able to make the Load-in time and has made arrangements with Event Management.

There are no rules that explicitly restrict items that may be brought into the venue during the designated Load-in period.

If an event does not have designated Load-in period on its Public Schedule, the designated Load-in period begins when pits open and ends when opening ceremonies start.

During Load-in, teams are not limited to a single trip, and are encouraged to be as efficient and safe as possible.

Violation: Item will not be permitted into venue.

- E21. Load in person limit is five (5).** Only five (5) team members (one of which must be an adult) may be in the pit area during any Load In period prior to pits opening.

Violation: Extra team members must leave the venue.

- E22. Load in to your pit only.** Teams may only bring materials to and leave materials in their pit area.

Violation: Teams will be asked to leave the pit area.

- E23. Pit must be left in a safe state.** Teams must have their pits in a safe state by the time pits close (even if some tasks are left undone).


- E24. Once done, head out.** Unless assisting other teams per the introductory language in this section, teams must leave the venue once finished delivering materials (or, in the case of Early Pit Setup, when setup is complete).

If an event has designated Early Pit Setup times both the evening before and the morning before pits officially open, a team may use both periods for load in and setup, but per E24 must leave once pit setup is complete.

Violation: Teams will be asked to leave the pit area.

Pits

A team pit is the designated space, usually 10 ft. by 10 ft. by 10 ft. (~3 m x 3 m x 3 m), where a team may work on their ROBOT. Each team is assigned a pit space marked with their team number. This helps team members, judges, and visitors find teams easily. Each team pit has a table and power outlet.



Teams, volunteers, *FIRST* staff, and guests spend a lot of time in the pits. Get to know other teams and help each other when you can. Time is short and help is very often right "next door" in the adjacent team pits.

Small, bench-top machinery, with appropriate guards, is permitted in team pits. 'Small' machinery is machinery that can be easily lifted by one person and examples include, but are not limited to, small band saws, drill presses, desktop CNC mills, and sanders.

E25. Pits are unavailable if closed. Teams may not be in their team pit outside the designated pit hours.

E26. Stay in your pit. Teams may neither allow their materials to expand beyond their team pit (including running power or internet lines from their team pit to any other area), swap team pits with other teams, nor move themselves to empty team pits.

E27. Keep aisles clear. Aisles must be kept clear.

E28. No sparks. Tools that throw sparks or produce open flames are prohibited.

Examples of tools that violate E28 include, but are not limited to, welders, bench and angle grinders, gas torches, etc.

E29. Nothing too big. Floor standing power tools are prohibited.

Examples include but are not limited to full-size drill presses, band saws, and table saws.

Violation: Teams will be asked to remove or not bring in floor standing power tools. Any items that are deemed unsafe or outside specifications by FIRST personnel, event management, and/or local committee members must be removed.

E30. No brazing or welding. Brazing/welding is prohibited.

Violation: Teams will be asked to remove or not bring in brazing/welding tools. Any items that are deemed unsafe or outside specifications by FIRST personnel, event management, and/or local committee members must be removed.

E31. Solder with specific tools only. Soldering may be done using an electric iron/gun only.

Violation: Any items that are deemed unsafe or outside specifications by FIRST personnel, event management, and/or local committee members must be removed.

E32. Structures must be safe. Teams may not build any structure that supports people or stores items overhead.

Violation: Any pit structures that is deemed unsafe or outside specifications by FIRST personnel, event management, and/or local committee members must be removed.

E33. Secure team identification assets. Team signs, flags, and displays must be securely mounted to the pit structure.

Violation: Any pit structures that is deemed unsafe or outside specifications by FIRST personnel, event management, and/or local committee members must be removed.

Robot Carts

Most teams use carts to transport their ROBOT throughout an event. Carts are not required but are strongly recommended (to minimize risk of muscle strains, dropped ROBOTS, and other hazards). In addition to the rules listed below, teams are strongly encouraged to put the team's number on the cart, refer to the [FIRST Safety Manual](#) for ROBOT lifting techniques, and practice putting the ROBOT on and off the cart to develop a safe, quick, fluid routine.


- E34. Carts must be safe and easy to use.** Carts must be easy to control, maneuver, and pose no risk to bystanders.
- E35. Carts shouldn't be too big.** Carts must fit through a standard 30-inch door.
- E36. Carts can't park anywhere.** Carts must remain in the team pit (or cart staging area if during a MATCH) when not in use.
- E37. No noisy carts.** Carts may not be equipped with music or other sound-generating devices, except for devices of reasonable volume used for safety purposes (e.g. to make others in the vicinity aware that a ROBOT is on the move).

Ceremonies

At every event, there are Opening and Closing Ceremonies to show honor and respect for represented countries, sponsors, teams, mentors, volunteers and award winners. Ceremonies provide everyone with the opportunity to collectively applaud the successes of all participants. They also give teams a chance to "meet" the volunteers and other people and sponsors involved with the event.

At the Awards Ceremony, *FIRST* presents trophies and medallions to outstanding teams. All team members are encouraged to attend the ceremonies, be punctual, and show appreciation to volunteers that staffed the event.

- E38. If in the pits during Ceremonies, shhhhhh.** During Ceremonies, team members may not:
 - A. use power tools
 - B. use loud hand tools (hammers, saws, etc.)
 - C. shout, yell, or use loud voices, unless as a demonstration of approval during a ceremonial activity.
- E39. Pit person limit during Ceremonies is five (5).** No more than five (5) team members may be in the pits during Ceremonies.
- E40. Be respectful during anthems.** Team members, including any remaining in the pits, should exhibit peaceful behavior during the presentation of all national anthems. Traditionally, team members stand to face the flag, remove hats, and either sing along or maintain a respectful silence during the anthems of



all nations present at the event. If team members wish to abstain, they have a right to do so, as long as they remain silent and non-disruptive.

In the Stands

E41. No saving seats. Teams are not permitted to save or designate seats for team members that are not present.

Teams may not hang banners or ribbons or otherwise designate seating. (Event staff will remove and discard any banners, roping, etc., used to designate seating.) Please take turns sitting in the bleachers/stands if seating is limited. If there is a crowding problem, we ask that you kindly leave after your team's match and return later, if possible.

E42. Don't throw items from the stands. Items may not be thrown from audience seating.