

5 Event Rules (E)

This section includes general rules which apply from the beginning of the public schedule when teams arrive through the end of the event with departure from the venue.

Universal Violation Note: A violation of any [Event Rules \(E\)](#) will result in a VERBAL WARNING.

Egregious or subsequent violations of an Event Rule may result in escalation to FIRST Headquarters and/or disqualification for the team from MATCHES and awards. Criminal behavior will not be tolerated and will result in removal of individual(s) involved and/or disqualification for the team from the event.

Any items that are deemed unsafe or outside specifications by FIRST personnel and/or the Event Director must be removed. Additional rule specific violations, if applicable, are listed with their corresponding rule.

FIRST is committed to [STEM for Everyone™](#) and as such, FIRST strives to make reasonable accommodations for persons with disabilities that request accommodation. Please see Section [1.6 Accessibility and Inclusion](#) for more information.

Rules around safety and security within this section are minimum requirements, and Program Delivery Partners are able to implement increased restrictions due to local or venue requirements (e.g., requiring badging for all attendees, reserving seating for accessibility). Partners should communicate additional local requirements early enough to allow teams to plan.

5.1 General Rules

E101 ***Personal safety comes first.** All team members must observe the following safety practices throughout the event:

- A. wear safety glasses or safety rated glasses with side shields (ANSI-approved, UL Listed, CE EN166 rated, AS/NZS certified, or CSA rated) in specified areas. There is a 10-minute grace period when the venue opens each day of the event for teams to find and distribute safety glasses.

Clear or lightly tinted safety glasses are preferred. Shaded glasses are allowed for those who need them and do not require a specific accommodation request.

- B. wear closed toed/heeled shoes,
- C. control entanglement risks by tying back long hair and removing other dangling decorations including lanyards, spirit wear, and rings as needed while working on or around a ROBOT or ROBOT related materials or tools,
- D. wear appropriate clothing,
- E. walk in the venue, and
- F. comply with government and venue-specific health and safety requirements in place for that event (i.e., mask wearing).

Teams are responsible for bringing their own personal protective equipment.

For more information about safety at FIRST events, please reference the [FIRST Safety Manual](#).

E102 *Be Respectful. All participants should follow the framework of behaviors listed in Section [1.4](#) [The Spirit of the Competition](#) while attending a FIRST Tech Challenge event. Uncivil behavior toward any participants is not tolerated.

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

- A. use of offensive language or other uncivil conduct towards someone,
- B. “weaponizing *Gracious Professionalism*” by accusing another person or team of being “not GP”,
- C. 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.), and
- D. anything that interferes with a ROBOT or the ARENA operations.

Examples of particularly contemptible behavior that may result in ejection from the event include, but are not limited to, the following:

- E. assault, e.g., throwing something that hits another person (even if unintended),
- F. threat, e.g., saying something like “if you don’t reverse that call, I’ll make you regret it,”
- G. harassment, e.g., badgering someone with no new information after a decision has been made or a question has been answered,
- H. bullying, e.g., using body or verbal language to cause another person to feel inadequate or unsafe,
- I. insulting, e.g., telling someone they do not deserve to be on a team,
- J. swearing at another person (versus swearing under one’s breath or at oneself), and
- K. yelling at another person(s) in anger or frustration.

E103 *Children with adults, please. Children under 12 must be accompanied in the pits by an adult at all times.

E104 *Respect the venue. Teams may not damage the venue, including but not limited to bleachers, floors, walls, and railings, in any way. This includes littering with team giveaways including candies, flyers, and stickers or items thrown from the stands.

E105 *Event resources are for competing teams only. Only teams registered for an event may use that event’s competition FIELD, practice FIELD, and inspection unless pre-approved by the Event Director or the Program Delivery Partner. Host teams supplying practice FIELD elements and/or machine shop resources may use them; however, teams registered for that event must be granted priority.

E106 *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 in other areas of the event venue. If the Event Director determines a pit practice setup is unsafe or interferes with activity in adjacent pits or aisles, the team must discontinue the activity.

Demonstrating robot functionality to guests or JUDGES is not considered practice.

- E107** ***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), or
 - E. as permitted at provided machine shops that are available to all teams.
- E108** ***Some things do not 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. scooters, except for those used for accommodations.
 - G. any item with bright lights which flash faster than approximately 5 times per second
- E109** ***Do not arrange for additional services or 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., FIRST event management software or webcasting).
- E110** ***Do not 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 unless specifically allowed by the Event Director.
- E111** ***No Loud Music.** Do not invite or bring live bands to play in the audience. Do not play loud music.
- E112** ***Hang banners with care.** Be respectful when hanging your 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. Get permission from the Event Director before hanging banners outside of your pit.
 - E. Hang signs and banners in a safe manner.
 - F. 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 ARENA.

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.).

- E113 *Limit flag and flagpole size if used in the ARENA.** Flags and flagpoles may not be of unreasonable size and weight if they are going to be used around the FIELD.

As a guideline, reasonable flags are less than 3 ft. by 5 ft. (~91 cm by 152 cm) in size and weigh less than 2 lbs. (~907g). Reasonable flagpoles may not be more than 8 ft. (~243 cm) long and must weigh less than 3 lbs. (~1360g).

- E114 *No firearms or other weapons.** Firearms or other weapons are prohibited at all *FIRST* events for all *FIRST* programs, including without limitation, [all official FIRST Events posted here](#). This rule includes prop or simulated weapons which appear to be real. This policy does not apply to law enforcement or venue security personnel.

- E115 *Inspection required for practice FIELD access.** A team may only use a practice FIELD with a ROBOT that has passed an initial, complete inspection. This rule only applies to events not using scheduled inspection times.

- E116 *Do not record anyone at the event without their consent.** Do not record interactions with anyone at an event, without the person's consent. *FIRST* event staff and volunteers are empowered to excuse themselves from an interaction in which they are being recorded after declining consent.

Please note that many *FIRST* events are livestreamed and *FIRST* participants have given permission to appear in footage from *FIRST*. This does not mean that people can record specific interactions without additional consent.

Laws regarding recording of conversations vary state-to-state and country-to-country, and, in some cases, recording without consent may be criminal. Introducing the idea of recording a conversation with an implied reason of proving someone's error can escalate a discussion and is likely to increase its adversarial nature.

- E117 *Enter only 1 ROBOT in the tournament.** At a given *FIRST* Tech Challenge event, each team may only inspect and play MATCHES with 1 ROBOT. *FIRST* Tech Challenge teams may only participate in 1 concurrent event at a time.

The intent of this rule is to use tournament resources responsibly by not requiring volunteers to inspect multiple ROBOTS and to prevent loopholes around having multiple inspected ROBOTS that can be switched out between MATCHES.

This rule does not prohibit teams from bringing other ROBOTS or robot-like assemblies into the venue for other purposes such as awards presentations or pit displays.

It is expected that teams will update, make changes and even build multiple ROBOTS during a season; this rule only applies to bringing multiple different ROBOTS to a single event to play MATCHES.

- E118 *No saving seats.** Teams are not permitted to save or designate seats for team members that are not actively using them.

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.

The Event Director may reserve seats for attendees who require accessible seating, for certain volunteers, or to ensure teams in the Playoffs have seats to watch their teams play.

5.2 Machine Shops and Host Team Build Spaces

Rarely, some events host a machine shop or open their team's build space, during specific hours (see the event public agenda), to help teams with repair and fabrication of their ROBOT. Machine shops are typically sponsored by the local host organization. In most cases, the machine shop is on site and readily accessible to all teams. All competing teams should have access to the same resources.

5.3 Wireless Rules

E301 *No wireless communication. Teams may not set up their own Wi-Fi (802.11a/b/g/n/ac/ax/be) wireless communication (e.g., access points or ad-hoc networks), Bluetooth, or any other communications systems using 2.4GHz or 5GHz wireless 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.

Bluetooth uses 2.4GHz frequencies to communicate which can interfere with venue and ROBOT systems.

Many R/C toys (including drones, wireless vehicles, FPV systems) use 2.4GHz and 5GHz communications. Do not operate these in the venue.

E302 *Don't interfere with wireless networks. Participants may not interfere, attempt to interfere, or attempt to connect with any other team or FIRST wireless network without expressed permission.

Teams are encouraged to report suspected wireless security vulnerabilities to the FIRST Technical Advisor (FTA) or Event Director if at the event or to FIRST via customerservice@firstinspires.org to report a suspected issue after the event.

5.4 Load-In

Some large events (often multi-day events) may set specific time frames, published on the event public schedule, in which teams are invited to load their ROBOT and equipment into 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.

5.5 Pits

A team pit is the designated space, varying in size but typically no larger than a 10 ft. by 10 ft. by 10 ft. (~3 m x 3 m x 3 m) area, where a team may work on their ROBOT. Each team is assigned a pit space typically marked with their team number. This helps team members, JUDGES, and visitors find teams easily. Pit spaces may vary based on competition venue size limits.

The pit area refers to the general area where team pits are located which encompasses the aisles between the pits, pit admin, ROBOT inspection, practice FIELD, or other areas where ROBOTS may be active or worked on. All pit rules apply to the full pit area.

Additional limitations beyond those listed below may be imposed by the Event Director but they should be clearly communicated at least 48 hours before the event start time and applied to all teams fairly.

Team pits may or may not have a table and power outlet. If individual team outlets are not provided, the venue must provide access to team-usable outlets in the pit area for charging batteries. Power may not be available overnight for a multi-day event.

E501 *Pits are unavailable if closed. Teams may not access their pit area outside the designated hours.

E502 *Pit set ups should be self-contained within the space assigned by the Event Organizers. Teams should set up their allowed equipment fully within their assigned pit space. Teams may not:

- A. run power or internet lines from their team pit to any other area except as instructed or allowed by the Event Director,
- B. swap team pits with other teams if pits have assigned team numbers, or
- C. move themselves to empty team pits without Event Director approval.

E503 *Keep aisles and exit pathways clear. Teams may not block aisles and pathways.

E504 *Open flames and spark emitting devices must be limited and carefully controlled. Tools that throw sparks or produce open flames are generally prohibited, except in limited and safely controlled instances. The Event Director may impose additional restrictions on open flames or sparks.

Examples which are generally acceptable: limited use of a lighter to melt strings or strap to prevent fraying, using a sander to shorten a bolt as long as the sparks are directed safely and is limited in duration.

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

- E505** ***Only small benchtop machinery is permitted in team pits.** Small machinery is allowed but floor standing power tools are prohibited. The Event Director may impose additional limitations.

'Small' machinery is machinery that can be easily lifted by one person and examples include, but are not limited to: 3D printers, small band saws, small drill presses, desktop CNC mills, and sanders.

Examples of prohibited machinery include, but are not limited to: full-size free standing drill presses, and band saws.

- E506** ***No brazing or welding.** Brazing/welding is prohibited.

- E507** ***Solder with specific tools only.** Soldering may be done using an electric iron/gun only.

- E508** ***Pit structures must be safe.** Teams may not build any structure that supports the weight of people or stores items overhead. Structures may not block or inhibit fire sprinkler systems or otherwise be unsafe. The Event Director may impose additional restrictions.

Popup tents may be used assuming they comply with [E502](#), but the coverings may violate this rule if they interfere with fire suppression systems.

- E509** ***Only use aerosol or other chemicals with noxious fumes in approved areas.** Any aerosol or chemical that produces noxious fumes or sprays particulates should only be used in approved areas. Not all venues will allow the use of these products anywhere on site.

- E510** ***Don't heat or cool ROBOT components to gain an advantage.** Teams may not attempt to gain a competitive advantage by heating or cooling ROBOT parts above or below the ambient temperature of the venue.

The intent of this rule is that ROBOTS should compete as if they were left alone for an extended period of time in the competition venue at ambient temperature. Behaviors that are against the spirit of this rule include, but are not limited to:

- Cooling fuses so they take longer to trip than normal,
- Heating batteries to increase their performance, and
- Freezing heatsinks so they are more effective at cooling other components.

Examples of behaviors that would not violate this rule include, but are not limited to:

- Heating or cooling components for reasons unrelated to ROBOT performance (e.g., warming up heat shrink tubing during installation)
- Using a battery that is slightly above ambient temperature as a result of its regular charging cycle, and
- Using a ROBOT with components that are warm as a result of prior use.

E511 *Charge batteries in a safe and fair manner. When charging batteries teams must:

- A. Charge batteries at a safe rate, following all manufacturer recommendations,
- B. Never charge batteries on a battery charger that exceeds a 3-amp average channel current, and
- C. Charge batteries using safe connectors.

Safe connectors are those with a polarized connector corresponding to the connector on the battery itself. Batteries must never be charged using alligator clips or similar.

5.6 ROBOT Carts

E601 *Carts must not be a nuisance. Teams may use carts to transport their ROBOT throughout an event. Carts must:

- A. be easy to control and maneuver,
- B. pose no risk to bystanders,
- C. fit through a standard 30-inch (762mm) door,
- D. remain in the team pit when not in use,
- E. not be equipped with music or other sound generating device, and
- F. not use powered propulsion.

5.7 Ceremonies

At most events, 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, sponsors, and supporters involved with the event. Closing ceremony elements are at the end of most events and are integrated into and presented between Playoff MATCHES.

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, and celebrate their fellow teams.

E701 *Quiet in the pits during ceremonies. During ceremonies outside of Playoff MATCHES, team members may not:

- A. use power tools,
- B. use loud hand tools (hammers, saws, etc.), or
- C. shout, yell, or use loud voices in a way that's disruptive to the ceremony.

E702 *Pit person limit during ceremonies is 5. No more than 5 team members may be in the pits during ceremonies outside of Playoff MATCHES. Each team must have at least 1 representative observing ceremonies to be responsible for relaying important information to the entire team.

All teams are encouraged to have as many people in the stands for ceremonies as possible. This is important both to celebrate all who are recognized during ceremonies, but also to listen for important day-of information from event organizers which might be critical for your team.

E703 *Be respectful during anthems. Team members, including any remaining in the pits, should exhibit peaceful behavior during the presentation of all national anthems. If team members wish to abstain from traditional anthem observance behaviors, they have a right to do so, as long as they remain silent and non-disruptive.

