

## 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. They are high-level rules intended to promote an orderly and safe experience for all participants. The Event Director may specify additional restrictions beyond those listed here based on local venue requirements.

Safety is always paramount, and many rules are intended to establish norms at each event that will mitigate injury risk to all participants.

The Event Director has the final decision authority for all safety-related issues within a venue.

### 5.1 General Rules

The rules below apply throughout an event 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 will be addressed by the Head REFEREE, the lead ROBOT INSPECTOR (LRI) and/or Event Director and may result in 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.*

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

**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) while in and around the playing FIELD and in the pit area. 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. The only instances where teams are not required to wear safety glasses are in their first 10 minutes of their event load in, and for the first 10 minutes pits are open each day of the event as long as they're not working on the ROBOT or setting up their pit.
- 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.
- 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 a Gracious Professional.** All participants must be gracious and professional at all times 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. 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
- C. 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 AprilTags employed on the FIELD is a violation of this rule.

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

- A. assault, e.g., throwing something that hits another person (even if unintended),
- B. threat, e.g., saying something like “if you don’t reverse that call, I’ll make you regret it,”
- C. harassment, e.g., badgering someone with no new information after a decision has been made or a question has been answered,
- D. bullying, e.g., using body or verbal language to cause another person to feel inadequate or unsafe,
- E. insulting, e.g., telling someone they do not deserve to be on a team,
- F. swearing at another person (versus swearing under one’s breath or at oneself), and
- G. 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, railings, in any way. This includes littering with team giveaways including candies, flyers and stickers.

**E105 \*Teams must check in.** An adult team member must check in at the Pit Administration station, or the designated check in location, no later than 45 minutes before qualification MATCHES are scheduled to start unless otherwise specified or approved by the Event Director.

*Violation: Failure to check in may result in a team not participating in the event.*

**E106 \*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.

**E107 \*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. When practicing in their pit, safety must remain the top priority. 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.

**E108 \*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.

**E109 \*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. walkie-talkies
- G. scooters, except for those used for accommodations

**E110 \*Do not 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., FIRST event management software or web casting).

**E111 \*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.

**E112 \*Make FIRST loud, but with restrictions.** Do not invite or bring live bands to play in the audience. Do not play loud music.

**E113 \*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.<sup>2</sup> (2.3 m<sup>2</sup>).

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.).

- E114** **\*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).

- E115** **\*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.
- E116** **\*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.
- E117** **\*Do not record *FIRST* staff or volunteers at the event without their consent.** Teams and their guests may not record interactions with *FIRST* event staff, or 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.

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.

## 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 [ftctech@firstinspires.org](mailto:ftctech@firstinspires.org) to report a suspected issue after the event.

*Violation: Verbal warning, plus subsequent and/or egregious violations may lead to dismissal from the event and/or legal action based on applicable laws.*

## 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. 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.

## 5.5 Pits

A team pit is the designated space, typically 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 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.

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: 3D printers, small band saws, small drill presses, desktop CNC mills, and sanders.

- E501** **\*Pits are unavailable if closed.** Teams may not access their pit area outside the designated pit hours.
- E502** **\*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 without Event Director approval.
- E503** **\*Keep aisles clear.** Aisles must be kept clear.
- E504** **\*No sparks.** Tools that throw sparks or produce open flames are prohibited.

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

*Violation: Any items that are deemed unsafe or outside specifications by FIRST personnel and/or the Event Director must be removed.*

- E505** **\*Nothing too big.** Floor standing power tools are prohibited.

Examples include but are not limited to full-size drill presses, and band 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 and/or Event Director must be removed.*

- E506** **\*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, and/or Event Director must be removed.*

- E507** **\*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 and/or the Event Director must be removed.*

- E508** **\*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.

*Violation: Any pit structures that are deemed unsafe or outside specifications by FIRST personnel and/or the Event Director must be removed.*

- E509** **\*Secure team identification assets.** Team signs, flags, and displays must be securely mounted to the pit structure.

*Violation: Any pit structures that are deemed unsafe or outside specifications by FIRST personnel and/or the Event Director must be removed.*

- E510** **\*Only use aerosol or other chemicals with noxious fumes in approved areas.** Any aerosol or chemical that produces noxious fumes or spray particulates should only be used in approved areas. Not all venues will allow the use of these products anywhere on site.

*Violation: Any items that are deemed unsafe or outside specifications by FIRST personnel and/or the Event Director must be removed.*

## 5.6 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.

- E601** **\*Carts must be safe and easy to use.** Carts must be easy to control, maneuver, and pose no risk to bystanders.
- E602** **\*Carts should not be too big.** Carts must fit through a standard 30-inch door.
- E603** **\*Carts cannot park anywhere.** Carts must remain in the team pit (or other venue designated cart staging areas) when not in use.
- E604** **\*No noisy carts.** Carts may not be equipped with music or other sound-generating devices.
- E605** **\*No motor driven carts.** ROBOT carts may 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 and other people and sponsors 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.

- 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.)
  - C. shout, yell, or use loud voices, unless as a demonstration of approval during a ceremonial activity.
- 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 to relay 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. 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.

## 5.8 In the Stands

**E801 \*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.

**E802 \*No throwing items from the stands.** Items may not be thrown from audience seating.

