Head Referee Manual

Revision History	
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V26-27.1	Initial 2026-27 Season Release

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In addition to this resource, please make sure to also read the entire Referee Manual.
The following manual is meant to serve as a Head Referee supplement, with information that applies only to the Head Referee role. Head Referees are responsible for all content and training in the Referee Manual.

Overview

Roles Covered: Head Referee

Job Description

The Head Referee serves as a role model and a knowledgeable resource for the Referee crew and the Field Staff. The entire Referee crew looks to the Head Referee to be a reference for all rulings on the field and for the interactions with the teams and coaches.

Take the time to study the relevant sections of the Competition Manual. Understanding the intent of the rules is critical to provide rule explanations and clarifications to the Referees.

Depending upon the Program Delivery Partner (PDP) or Event Director, the Head Referee may be asked to help with the training for the Referee crew at the event or additional event planning.

Model for *Gracious Professionalism*®

A Head Referee serves in a very visible role in an event. The Head Referee is frequently front and center, and in the thick of the activity. As such, the Head Referee's actions are very noticeable. Head Referees should keep a professional demeanor in working with the entire Referee crew as well as all the Field Staff around the field. A light-hearted, friendly personal style around the field should help to keep the interactions with everyone, including the teams, friendly and cordial.

Requirements	
Technical	Medium
Physical	High
Administrative	High
Communication	High
Pre-event Training	High

Time Commitment

Head Referees can expect to spend an additional 4-8 hours of pre-event training and planning on top of the time commitment for Referees, for a total of 10-16 hours – pre-event.

Attire

- Comfortable closed-toe, closed-heel shoes; much of the day will involve standing and walking.
- ANSI Z87.1 or regional equivalent certified safety glasses are required in specified areas.
- Generally, attire that allows a volunteer to comfortably and appropriately squat, kneel, and stand without entanglement hazards is advised.
    - Wear neat, dark – preferably black – pants or shorts.
    - Wear a shirt underneath the Referee shirt. It is recommended to be black or white with no visible logos.
    - Attire and accessories may not display a team affiliation (e.g., team shirt, school hat, the same distinct safety glasses as a particular team) or objectionable logo.
    - Fun and appropriate Referee, Head Referee, game, or robot-themed attire may be worn.
- Some events will provide a black and yellow Head Referee shirt to help distinguish Head Referees from other Field Staff. Head Referees may bring and wear their own identical Head Referee shirt, if they have one.

Training and Certification

Read and complete all tasks listed in the `Pre-Event Training` section.

Any volunteer who applies to a role will be able to get into the Learning Management System (LMS) using the '*FIRST* Training' button. Roles will appear in the 'roles missing certification' area. For more help, you can read more about how to access your training.

If you have applied for a role but have not received access to the training, please email training@firstinspires.org. A separate confirmation of the role assignment will come later.

Head Referees should communicate with Referees and Official Scorers any additional requirements, such as meetings before the event or run-throughs of the space before the event are required.

All volunteers are expected to read and comply with the Volunteer Handbook.

Roles and Responsibilities

***FIRST* is fun for all.** The most important role for a volunteer is to provide a safe, fun and welcoming environment for all *FIRST* participants. When executing the duties of your role, always make decisions with the team experience in mind. Ask for help from event leadership if you feel your required duties conflict with the best team experience.

Core Skills

Highly successful Head Referees demonstrate excellent Referee skills and the additional following skills, regardless of event structure:

- expert knowledge of the competition, game, and rules of play,
- leadership and decision-making skills to work with volunteers and teams,
- effective time management,
- high-level of problem solving,
- active listening to student questions and feedback from other volunteers, and
- empathetic and clear communication with volunteers and participants of all ages.

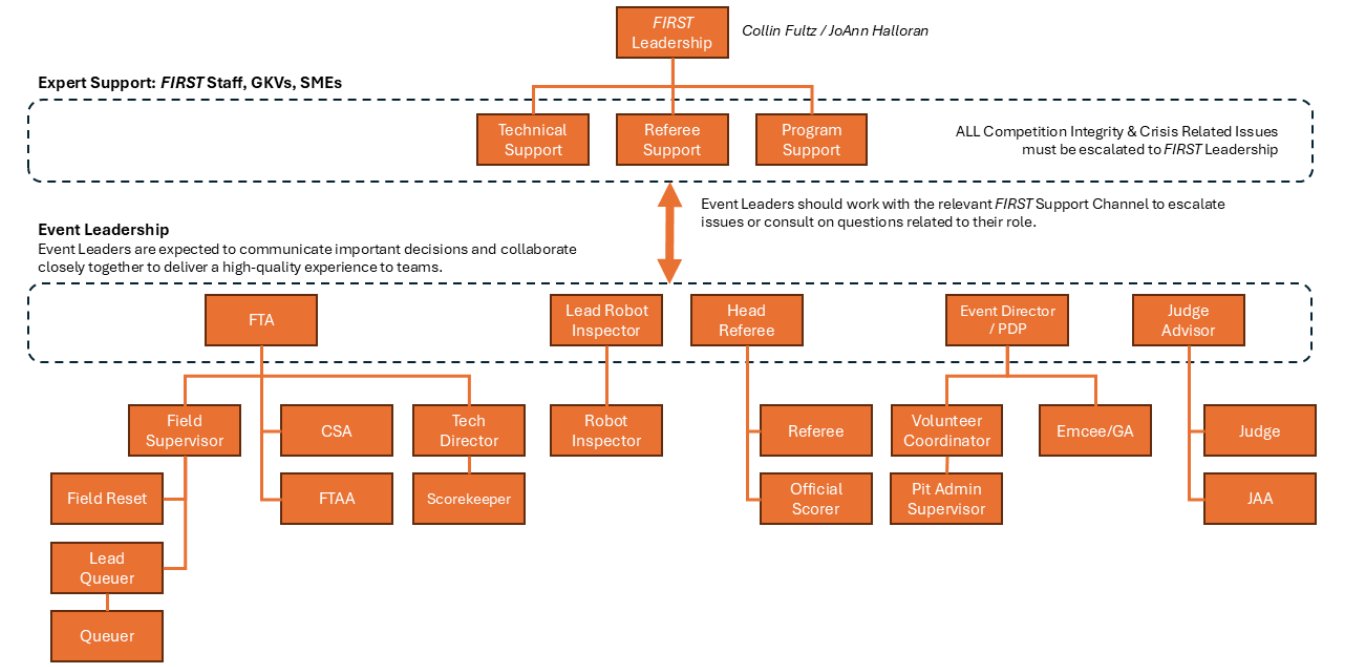
Prerequisites for Referees

- Previous experience as a *FIRST* Tech Challenge Referee
- 21 years of age, 23+ preferred

Reporting Structure

The Head Referee reports directly to *FIRST* Staff and Global Key Volunteers for support and acts as their representatives at events. They collaborate with other Event Leadership volunteers as shown in the Decision Authority Matrix (DAM) to successfully deliver a high-quality experience to teams.

FTC 2026-2027 Decision Authority Matrix



Core Responsibilities

In addition to the responsibilities of a Referee, the Head Referee also has additional responsibilities. These include:

- Collaborate with other Event Leadership to solve problems, communicate concerns, and ensure alignment on important event management details.
- Provide leadership over Referees, Official Scorers, and match gameplay.
- Ensure a qualified Head Referee observes every qualification and playoff match.
- In collaboration with the FTA, ensure that matches are carried out effectively, fairly, and promptly.
- Serve as a knowledge reference and training resource for the Referee crew and other volunteers.
- Monitor the Referee crew to make sure they are making correct calls.
- Communicate clearly & consistently with teams.
- Help manage an event schedule.
- Serve as a role model for *Gracious Professionalism*® core skills.
- Understand and uphold the Competition Integrity Contract (CIC).
- Escalate gameplay issues to external support, if needed.

Before the Event

Pre-Event Training

Head Referees must complete the required reading in this section and are required to pass a certification test prior to serving in this role. Head Referees must be confident and comfortable with the game rules to be able to reliably make calls during the fast pace of a *FIRST* Tech Challenge event. Learning ahead of time will go a long way towards keeping the event running smoothly and on time.

Training is found in the *FIRST* Training accessed through the Dashboard. Resources for Head Referee training and certification, in addition to those required for Referee training and certification:

Head Referee Pre-event Training List	
Requirement	**Resource**
Required	Complete the Welcome to *FIRST* Training
Required	Review the Head Referee Volunteer Manual (this document).
Required	Review the Competition Manual – specifically, the sections below: • Section 3: Competition Eligibility and Inspection (I) • Section 4: Advancement • Section 5: Event Rules (E) • Section 12: ROBOT Construction Rules (R) • Section 13: Tournament (T) • Section 14: League Play Tournaments (L) (if applicable)
Required	Complete the *FIRST* Data Protection and Privacy Training module accessed through the *FIRST* Dashboard.
Required	Field Operations Guide, which contains training and advice for managing the fields and related volunteers
Required	Field Mitigation Guide, which contains permissible actions for Field Staff to take regarding field issues before, during, and after matches during an event.
Required	Review the Field Reset Guide.
Required	Review the Head Referee Training Materials.

Head Referee Pre-event Training List	
Encouraged	Volunteer Q&A System • The volunteer Q&A serves as a space for these volunteers to ask questions and receive official answers from *FIRST* Staff and our Global Key volunteers about the Competition Manual and its expected implementation. • To access the Q&A, volunteers must have an active *FIRST* Dashboard account, have applied to volunteer in the specific role for the current season, and have a signed consent and release form.
Encouraged	Attend the monthly Referee/Head Referee Volunteer Calls.
Encouraged	Review the Scoring & Referee Tablet Guide.
Required	Complete the Head Referee Certification Test in the *FIRST* Learning System.

Additional Information & Resources

Head Referee Additional Resources	
Resource	**Description**
FTC Team Q&A System	This is a resource for teams; however, Head Referees may also find these useful to understand the questions teams ask.
***FTC Referee Volunteer Slack* workspace**	Join by invitation from the local Program Delivery Partner (PDP). This is an informal community space for Head Referees and Referees. This Slack space also includes an Event Support feature for Head Referees that can be used in addition to or instead of the phone number listed in this manual.
FTC Referee/Head Referee Volunteer Office Hours	**NEW for BIOBUZZ!** Did you have a difficult situation at an event that you want to discuss? Did the question box interaction not go the way you planned? Looking for tips on getting the most out of the HR features in the scoring system? Want advice on running a short-staffed event? Come to office hours, we're here to help! This is an optional time for Referees and Head Referees to chat with the Global Key Head Referees. These sessions aim to provide the opportunity for more individualized discussions or conversations that don't fit in the webinar format. These informal drop-in office hours will be hosted through a Slack Huddle (see above). This is not a substitute for the Q&A, no official rulings or clarifications will be made, and these sessions will not be recorded. See the Slack for more information on timing and availability.
FTC Escalation Guidelines	Guide for escalating incidents on- and off- the field.
FTC Scoring & Referee Tablet Guide	A guide on how to use the Scoring and Referee Tablets.
FTC Volunteer Materials	General resources for all FTC volunteers.
***FIRST* General Volunteer Materials**	General resources for all *FIRST* volunteers.
Head Referee Meeting Scripts	*FIRST*-provided meeting scripts to use as a starting point at the event. Scripts are available and editable through the Head Referee Tablet at the event. This link is provided for advance reference only

Additional Pre-Event Activities

Prior Communications

- Discuss Referee, Official Scorer, & Field Staff volunteer staffing levels with the Volunteer Coordinator and Event Director.
- Review the latest Team Updates for important changes to the Competition Manual.
- Communicate with Referees about any event preparation, including optional local training.
- If it is anticipated that there is little or no time for a Referee Meeting at the event due to logistical constraints, the Head Referee should communicate key points to Referees prior to the event.
- Ensure that key event details (where, when, how long, etc.) are communicated to the Referees and Official Scorers, typically in an email or online event information from the Event Director, Volunteer Coordinator, and/or Program Delivery Partner (PDP).

Local Referee Training

Head Referees are encouraged to coordinate with the Regional Lead Head Referee, Event Director, and/or PDP to determine if they should provide any pre-event Referee training and/or information to Referees.

Official Scorers do not need to be trained in advance of an event.

Recommended Referee & Official Scorer Staffing

The Head Referee should collaborate with the Event Director and Volunteer Coordinator to determine an appropriate level of staffing for Referee and Official Scorer roles.

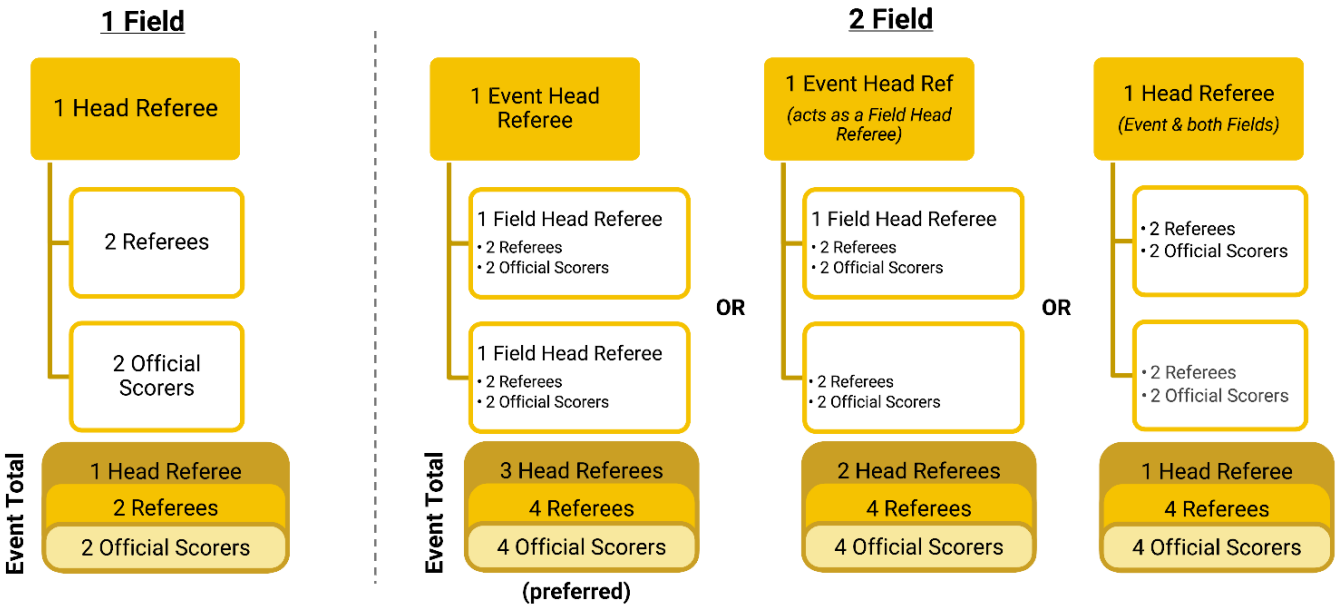


Figure 1: Referee and Official Scorer Staffing at 1 and 2 Field Events

There should always be a single Head Referee who is the final authority for the event. Having multiple Head Referees at an event is acceptable, and can be beneficial, as long as one is understood to be the “Event” Head Referee with final authority.

While events with multiple fields can function with a single Head Referee, at least one Head Referee per field is strongly recommended. It is recommended that multiple division events additionally have an event-level Head Referee that is not assigned to a field who can help coordinate and disseminate information, manage off-field tasks such as the question box and conversation with other key volunteers, and oversee all divisions to maintain consistency.

Having only a single Head Referee at a multiple field event will likely be a limiting factor in match cycle times, as they must watch every match, be involved in Referee conferences, and respond to teams in the question box.

During a match, a field should have only the recommended number of Referees and Official Scorers present. If there are additional Referees or Official Scorers at the event, encourage them to clearly stand away from the field to ensure a consistent match experience for the teams. Any Official Scorers and additional Referees should avoid participating in any post-match Referee conferences. Overstaffing beyond the recommended number of Referees and Official Scorers above should be avoided.

Referee & Official Scorer Rotations

For events with long durations of matches (~4 hours or more without a break), Referees should cycle through the Referee positions with extra Referees on break, and Official Scorers should cycle through the Official Scorer positions with extra Official Scorers on break, if they are available. Referees should rotate between the different Referee positions (red/blue) at least every 5 matches, and Official Scorers should rotate between the different Official Scorer positions (red/blue) at least every 5 matches. Establish a consistent rotation pattern at the beginning of the day, e.g., rotate clockwise through the positions, and help the Referees to maintain this pattern.

Event Day

Report Time

The Event Director or Volunteer Coordinator will confirm the time you should arrive typically via email the week before the event. In most cases, Head Referees should arrive at least one hour prior to any scheduled matches.

When you arrive on site, check in with the Volunteer Coordinator.

Arena Setup

It is recommended that the Head Referee works with the FTA to check the arena and field setup to confirm that fields are compliant. The Head Referee provides input to help the Event Director and provides guidance related to rules in the Competition Manual.

Volunteer Interaction

Event Director

Prior to the event and on event day, the Head Referee and Event Director work together to execute an effective and efficient event. The Event Director plans the overall schedule and flow of the tournament while providing oversight to all elements of the event function. The Event Director may seek input from the Head Referee on aspects of the schedule, including Referee staffing and the match schedule. The goal is for the schedule to be reasonable for both teams and Field Staff to ensure smooth flow of the event. Avoid scheduling matches faster than the Field Staff reasonably expect to be able to complete them; e.g., do not schedule 4 minute cycle times if 7 minutes is closer to what Field Staff can expect to be able to accomplish. A schedule that is consistently inaccurate leads to confusion between teams and event staff.

The Event Director has primary authority over all elements of the event outside of the arena including judging and the pits. The event rules in Section 5 of the Competition Manual have shared enforcement responsibility between the Event Director, Lead Robot Inspector, and Head Referee; however, the Head Referee should defer any decisions related to these rules to the Event Director. As a trusted expert on the Competition Manual, the Event Director may consult with the Head Referee about the event rules (E*xxx*). This can include guidance on understanding the rule itself, or the Event Director may ask the Head Referee to issue a Verbal Warning to a team given the Head Referee's visible position of authority at the event. In no circumstance can the Head Referee apply gameplay penalties (i.e., fouls or yellow/red cards) for violations of event rules. The correct escalation path for violations of event rules is for the Event Director to contact *FIRST* Headquarters.

FIRST Technical Advisor (FTA)

As a fellow event leader, the Head Referee and FTA collaborate to ensure that matches are carried out effectively, fairly, and promptly. A gracious and professional relationship between the FTA and Head Referee is critical to a smooth and successful event.

FIRST strongly recommends that FTAs and Head Referees follow the **FTA & Head Referee Workflow** outlined in the Field Operations Guide. Before the start of qualification matches, the FTA and Head Referee should meet to discuss the workflow and any other touchpoints. For example, teams may ask questions in the question box that are best answered by the FTA.

Volunteer Coordinator

Upon arrival at the event, the Head Referee should check in with the Volunteer Coordinator. This serves as an opportunity to confirm the final level of staffing and meet any unfamiliar volunteers. In some cases, the Event Director may also fulfill the Volunteer Coordinator role.

Referees & Field Staff

The Head Referee should manage Referees and Official Scorers. The Head Referee should also coordinate with other Field Staff, such as the FTA(A) and field reset volunteers. Coordinate with the appropriate technical field personnel on any field or field reset issues. At some events, this may be the FTA or the Field Supervisor. As the event's expert on the Competition Manual, these roles may seek guidance from the Head Referee. If asked, work with these volunteers to ensure that they have a sufficient understanding of the Competition Manual to carry out their assigned tasks.

Team Interaction and Support

Answering Team Questions

One of the key responsibilities of a Head Referee is to address questions from teams and to provide fair, consistent, rule-based answers to their concerns. Per Section 13.3, each event must provide one or more designated question boxes where teams can interact with the Head Referee.

The Head Referee has many responsibilities, including monitoring the question box to see if a team needs support. If possible, address the team's concern immediately. If it is not possible to address their concern immediately due to other priorities such as an active match, the Head Referee should acknowledge the team and inform them that they will return shortly, e.g., after the next match.

It is important for the Head Referee to make sure to patiently listen to the questions from the team members. Make sure to consider their points and to hear them out completely. They are often very passionate about their concerns, and that passion typically becomes more heated if they are not allowed to clearly and completely express their concerns.

While an adult team representative such as a mentor or coach may come to the question box and participate in the discussion, a student team member must be present and, as much as possible, should be an active participant in the conversation. All representatives (students and adults) should keep the questions factual and constructive per T303 and should keep their behavior civil per G201/E102.

If there is a language or communication barrier with team members, the Head Referee should work with the team to find a reasonable accommodation, including using a translation application or a volunteer or mentor that can help reduce the communication barrier.

At the end of the discussion, it is a good idea for the Head Referee to reinforce any positive behaviors displayed by the students. Thanking them for having a calm, intelligent discussion and wishing them good luck with the remainder of the event will help with keeping a positive environment around the arena.

The Head Referee should not be afraid to correct errors, but it's not possible to be perfect — the Head Referee should do their best with what is observed by themselves and Referees during the match. The Referee crew is human. If, in consulting with the Referee crew through an impromptu `Referee Conference`, the Head Referee determines that the team has a valid concern, please reference `Score Changes` and `Match Replays` for next steps.

Inappropriate Question Box Behavior

In general, the Head Referee should not allow a team at the question box to:

- record the discussion without explicit permission from the Head Referee (E116),
- bring more than two representatives (T301), one of whom must be a student while the other may be an adult or student,
- show photos, videos, artistic renderings, etc. for Head Referee review (T401),
- engage in an argument instead of a reasoned discussion, or
- ask for a volunteer's personal details such as full name and/or contact information.

The Head Referee is empowered to:

- politely remind the team representatives of the non-compliant behavior and wait to begin the discussion until they comply,
- remove themselves if the team representative(s) refuse to comply after politely being reminded of the rules,
- reinforce that the Head Referee rulings are final and not to be discussed at excessive length, or
- provide a team with the *FIRST* contact information to submit a complaint, if needed.

If the interaction in the question box is rude or disrespectful, and this is not corrected after a polite reminder, the Head Referee should understand that this is not acceptable behavior at a *FIRST* Tech Challenge event. While the Head Referee is the ultimate authority in the arena, the Head Referee is empowered to involve additional event or local leadership and, ultimately, *FIRST* Headquarters support for team behavior that is disrespectful, rude, or that egregiously disregards Head Referee instructions.

FTC Scoring System

Head Referees should be familiar with the Event Management System and the scoring and referee tablets which will be used for live scoring in order to help Official Scorers and Referees input match results accurately.

More information about the features can be found in the Scoring & Referee Tablet Guide.

Head Referee Tablets

Head Referees are encouraged to use a tablet device to access the Head Referee features in the scoring system. The Head Referee should check with the Event Director to determine if the event will provide the device or if the Head Referee should bring their own device.

The Scorekeeper or FTA can help the Head Referee log into the Head Referee account which will give them access to several tools during the event, including an active match display, notes, timers, cycle time information, and scoresheets.

Cycle Time Reports

Head Referees who are assigned to their events in the Volunteer Management System (VMS) will be able to access their system time reports after the event by logging into https://ftc-scoring.firstinspires.org/ using their *FIRST* Dashboard login information. Reviewing this information can help provide quantitative feedback on how the Referee crew worked together so that the Head Referee can revise their plans for future events.

Referee Rules Meeting

The Head Referee should plan to arrive at the event early to meet with the Referee crew.

Recommended talking points are available in the Head Referee scoring system tablet under “Referee Score Tracking” > “Head Referee” > “Notes” under the “Meeting” drop down or available in advance at HR Meeting Notes. These notes can be edited or replaced, as appropriate.

The Head Referee will hold a meeting the morning of the event with the Referees to talk about the rules and any reminders from recent Team Updates.

Scoring & Referee Logistics Meeting

The Head Referee will hold a meeting the morning of the event with the Official Scorers and Referees to talk about the flow of the day, logistics around the field, and review scoring achievement criteria.

The Referees and Official Scorers work very closely when recording penalties and finalizing the score of each match. Having introductions in the morning as well as reviewing their assignments will make for a great start to the day. This is an opportunity to come up with a communication plan with all the Referees.

Recommended talking points are available in the Head Referee scoring system tablet under “Referee Score Tracking” > “Head Referee” > “Notes” under the “Meeting” drop down or available in advance at HR Meeting Notes. These notes can be edited or replaced, as appropriate.

This is also an opportune time for Official Scorers and Referees to report their conflicts of interest and gain clarification on scoring achievements.

Drivers' Meeting

One of the Head Referee's responsibilities is leading the drivers' meeting that takes place the morning of the event, prior to the start of any qualification matches.

The drivers' meeting should emphasize key rules and interpretations and reiterate any recent changes or clarifications to the most current revision of the Competition Manual. It should serve to clarify any misunderstandings the teams may have about game, robot rules, or scoring. These may vary by region and event.

The meeting is an opportunity to make sure that all the teams understand the match flow such as when and where they should queue, the order the robots should be placed onto the field, the sequence of the match, and the cue for the reset of the field and the removal of their robots. The FTA may handle this part of the meeting and/or may have additional information and reminders for teams.

During the drivers' meeting the Head Referee should describe the process for teams to ask questions. Make sure to emphasize the timing of questions. It is also critical at the drivers' meeting to point out the location of the question box where the team member(s) should wait to ask their question.

The Head Referee should make sure to allow time for questions from the teams. Depending on the size of the event and the noise level where the drivers' meeting takes place, the Head Referee will possibly need to repeat questions so that all attending the meeting can hear the questions as well as the answers. Talking points are available in the Head Referee scoring system tablet under "Referee Score Tracking" > "Head Referee" > "Notes" under the "Meeting" drop down or available in advance at HR Meeting Notes. These notes are a good starting point that can be added to or modified, though remember to be expedient and allow time for questions.

Practice Matches

If an event schedule includes practice matches, the Head Referee can determine if Referees and Official Scorers are encouraged to be present to provide teams with an experience to approximate qualification and playoff matches. This is a good opportunity for Official Scorers and Referees to practice their in-match responsibilities, including scoring and helping with pre-match setup, calling rule violations, completing Referee discussions, and providing feedback to teams.

While Official Scorers and Referees are not required for practice matches, there is value for both teams and volunteers for some Official Scorers and Referees to be present.

At least one member of Field Staff, such as the FTA, Field Supervisor, or Head Referee, should be present during any practice matches, so coordinate with fellow volunteers.

Qualification & Playoff Matches

Head Referees should plan to be present for all qualification and playoff matches that have been scheduled, subject to their scheduled volunteer times. Head Referees are crucial to arena operations.

Head Referees are not typically part of alliance selection, so it is a good time to take a break and regroup for the `Alliance Captains' Meeting` and playoff matches.

Field Setup & Reset Process

Key Field Staff, including the FTA and Head Referee, should remain schedule-aware, not schedule-driven, throughout the event. A key factor in the match flow schedule is the time between the end of one match to the start of the next – during which, the Head Referee and the FTA and their delegates work together to ensure proper robot removal, score certification, field reset, etc. Each of these roles has their areas of responsibility. For the Head Referee specifically, those responsibilities are below:

Pre-Match Setup

1. During Pre-Match Setup, the Head Referee and Referees should confirm robots, operator consoles, and drive teams are appropriately setup per the rules.
2. The Official Scorers should enter whether the team and/or robot are present on the tablet. The Head Referee should clearly instruct the Official Scorer regarding when the "Team not Present" entry applies. The scoring system automatically handles the score impact for a team not being present for the match.
3. The Head Referee and FTA or Field Supervisor should check the state of the field to ensure there is no field damage requiring repair, and the field setup is accurate prior to the start of the next match.
4. Once the Head Referee confirms that the field is setup correctly and the FTA has returned control of the field to the Head Referee following initialization of OpModes, the Head Referee should verbally announce to the teams that they should be ready and "hands-off," indicating that the match will start shortly.

> If the state of the field readiness changes between when teams affirm that they are ready and the start of the match, the Head Referee has the discretion to correct field issues such as scoring elements that have moved.

5. Upon receiving active, affirmative recognition (e.g., thumbs-up) from all teams, the Head Referee should signal the Scorekeeper and/or Announcer to start the match. The Head Referee should signal the start of the match through one of the following:
6. If an Announcer is present:
    - The Head Referee holds a sustained "thumbs-up" overhead through the word "GO," and the Announcer will say "3-2-1-Go!" with hand signals.
7. If an Announcer is not present:
    - The Head Referee holds a sustained "thumbs-up" overhead until the automated countdown begins, at which time they should show overhead, in sync with "3-2-1-Go!" – 3 fingers, 2 fingers, 1 finger, and drop their arm in sync with "Go!"

Field Reset

1. Following the conclusion of a match, confirm that the Referees have reviewed Official Scorer scoring achievements and submitted the Final Review. Teams should not enter the field to retrieve their robots until scores have been certified.
2. Encourage teams to press stop (■) at the conclusion of the match to make it clear to Field Staff that they comply with G404.

> The Head Referee is not responsible for checking the driver stations to ensure that each team has pressed stop. However, they should be clear to all of the teams to stop driving.

3. Allow drive teams to enter the field to retrieve their robots by clearly indicating that they may clear the field.
4. The FTA should now take charge of the field for field reset between matches.

Match Timing (G301)

The Head Referee is a key participant in ensuring the event stays on schedule while providing a positive experience to the teams. The match schedule provides teams with an outline of their day and serves as an important resource to ensure a smooth, consistent, and predicable event flow. The Field Operations Guide provides more information about collaborating with the other Field Staff and key volunteers to ensure a smooth event flow. However, G301 is the responsibility of the Head Referee and is one of the key methods used to ensure that events proceed as planned while providing equitable time to teams to prepare for their matches.

G301 is the “late policy” for teams. Teams may not delay the start of the match and doing so puts them at risk of penalties under G301. However, G301 provides allowance for teams making a “good faith effort” to become match ready and timelines for the Head Referee to enforce if they are not doing so. The Head Referee must be familiar with G301 to enforce the timing rules fairly and consistently.

The Head Referee tablet, available in the scoring system and discussed in the FTC Scoring System section, automatically calculates the timing of the match in compliance with all relevant rules and provides a convenient button to start the 2-minute timer for G301.

Figure 2 provides a flow chart for the application of G301. The flow chart is sufficiently detailed to capture all scenarios – the application of G301 in each scenario will be simpler than what is shown. The text of the Competition Manual is always the primary source for G301. This figure is provided as an alternative representation to aid in the comprehension and consistent application of the rule.

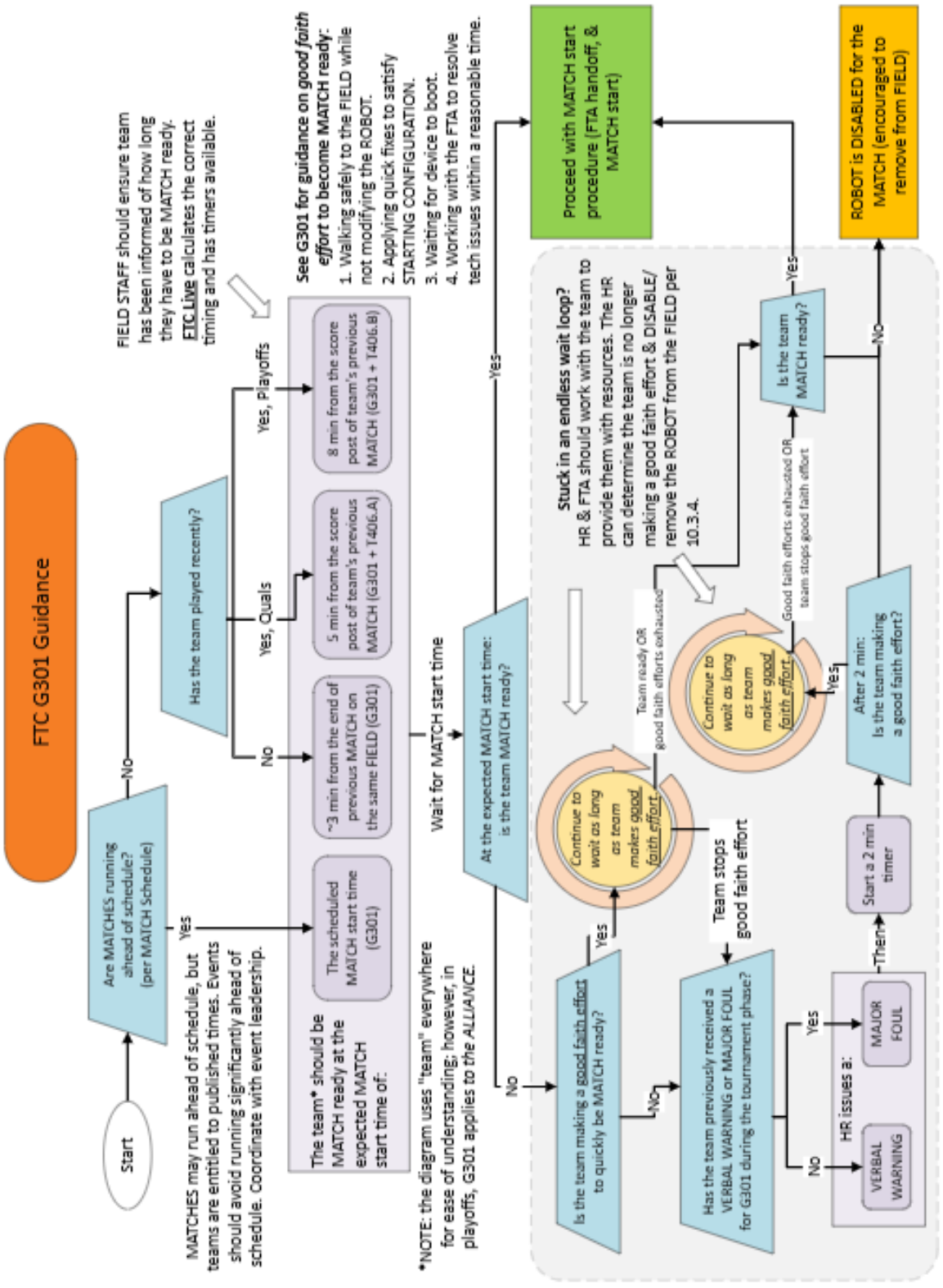


Figure 2: FIRST Tech Challenge G301 Guidance

Scoring Finalization

Immediately after the match, the Referees work with Official Scorers to efficiently confirm scores during the post-match review process. Referees should ensure all fouls that were called during the match were recorded exactly once. If Referees have any questions about scoring or violations, they should work with the Head Referee to resolve their concerns. The Head Referee and Referees may briefly hold a `Referee Conference` to resolve any questions about rule violations.

Before the Referees and Official Scorers submit their final review, the Head Referee may click the "Review Required?" button on the Head Referee tablet. This will hold the match results even after the Referees have submitted, allowing the Head Referee to enter yellow/red cards.

It is critical that any match results that were observed during the match, including scoring achievements, Verbal Warnings, fouls, and cards that the Head Referee is aware of are entered before match results are initially posted.

Head Referees must hold match results to inform team(s) of card(s) per `Issuing Yellow and Red Cards`, but they should not hold teams at the field and/or hold match results while doing tangential activities such as holding a non-card related `Referee Conference`, making notes or *briefly* informing teams of rule violations, including Verbal Warnings.

Issuing Yellow and Red Cards

If a yellow card or red card should be issued for a rule violation, the process is:

1. Make the call
    - The Referee/Head Referee should call the violation when it occurs during the match.
    - The Referees that observed the violation need to confer with the Head Referee during a post-match `Referee Conference` that the correct call is being made.
- Refer to the Competition Manual and Escalation Guidelines, if the card is being issued due to a strategic violation.
2. Input the violation into the Head Referee Tablet
    - Record the card(s) per `Tracking Verbal Warnings, Cards, and Escalating Violations` and any other penalties (e.g., fouls) associated with the violation.
        - If not using the Head Referee Tablet, the Head Referee must inform the Scorekeeper, who can enter the card through editing match results.
    - Depending on the match flow, the Head Referee may need to hold match results to ensure the they can inform the team(s) of the card(s) prior to posting match results.
3. Inform the drive team(s)
- The Head Referee should *briefly* inform the team of:
        - the observation that was made during the match,
        - the rule that they were in violation of,
        - that the they will be receiving a [yellow/second yellow/red] card, and
        - what the card means (e.g., a yellow card is a warning, a second yellow card is equivalent to a red card, and a red card is a match disqualification).
    - Any questions or discussion about the violation or card, beyond the initial information, should be moved to the Question Box.

4. Inform the Announcer
    - Advise the Announcer a card has occurred so they can announce the card when the match results are posted. This information should include:
        - the match number,
        - the team number,
        - the type of card, and
        - the rule violated and its headline.
    - Release the match from Head Referee review for posting, if not already completed.
5. Record the card
    - Make a note – either on paper or in the Head Referee tablet – of:
        - the match number,
        - team number,
        - type of card, and
        - rule violated.

> **Note**: The Head Referee should never show a physical card to a team at the field. The card is shown virtually in the posted match results.

Referee Conference

Occasionally, the Head Referee and Referees may confer during the post-match review or in answering a team's question. This also encourages consistent application of the rules throughout the course of the day. Gather the crew and discuss the situation as needed. Make sure to allow all Referees the opportunity to speak, if they wish. Any Referee conferences should take place away from teams and other volunteers, including Official Scorers.

> Official Scorers should only be involved in discussions regarding scoring achievements, not discussions involving rule violations or team/robot behavior. For event-to-event consistency, it is important for the gameplay calls to be made by a consistent set of trained volunteers as defined by their roles.
>
> This means that Official Scorers should focus only on scoring. While an event may include Official Scorers who are trained in other roles, some events will include Official Scorers with limited training, and all Official Scorers should be treated the same.

Sometimes a brief conference is a valuable tool for defusing disputes. After the Head Referee listens to a team's questions, it may be useful to step away, confer with the Referee crew, and then provide the answer. The individual Referee that made the call should not be brought to the question box to explain the call.

Even if the conference doesn't impact the decision that the Head Referee would have made in any way, taking the time to discuss the question with the crew helps the team feel that their concerns were heard, understood, and valued, even if the final decision doesn't go the way they are arguing for. Make

sure that the short conference happens away from earshot of the teams that are asking (also away from others that may eavesdrop). Also keep in mind that matches must keep moving forward; this meeting should be short in order to keep the event schedule moving on time.

Referees should be cognizant of any extra people or recording devices that can capture a Referee conference. During a Referee conference, Referees should avoid being adjacent to the audience or team spaces, highly visible on a stream, near any microphones, or near any other recording devices. A Referee conference is a private discussion, only with relevant Referee(s) and possibly FTA(s). Extra volunteers and/or team members should not be part of a Referee conference.

Score Changes

At times, Referees may become aware of an incorrectly recorded score or foul or identify an incorrectly recorded rule violation that requires updating match results after match results have been posted. Referees are instructed to discuss these discrepancies with the Head Referee. Scoring achievements must have been observed by an Official Scorer or Referee, and violations must have been observed by a Referee. Anything that was not observed live by an Official Scorer or Referee should not be added or altered from the in-match result.

Permitted score changes include correcting a minor foul to a major foul after match results have been posted – if a major foul was the correct penalty for the violation that was observed by the Referees, removing a duplicate foul entry, or adding a scoring achievement an Official Scorer or Referee observed but accidentally was not recorded appropriately.

If a score change is necessary and will change the outcome of a match – specifically, the win/loss/tie results or Ranking Points earned – the Head Referee should be sure to alert the appropriate parties based on the following:

Score Changes	
Need for change is identified:	**Actions to be taken by the Head Referee:**
Before match results have been posted	• Inform the Scorekeeper not to post match results until the issue is resolved/scores are updated. This might require assistance from the Scorekeeper to override the scores in the Referee tablets. • Let the Announcer know there will be a delay in match results.

After a match results have been posted	Prior to publishing updated match results: • Inform the Scorekeeper that a match score must be changed, and the changes that must be made. • Gather the teams impacted by the change to let them know what is changing, and why it is changing. • Let the Announcer know that a prior match result will be updated and posted. Once those parties have received proper communication: • Coordinate with the Scorekeeper and Announcer to have the updated match results posted and announced.

The Head Referee must work with the Scorekeeper to ensure that scores are correctly updated and released based on the timing outlined above. Once match results have been submitted and posted, the Head Referee cannot make adjustments to any match results from the Head Referee tablet and must consult with the Scorekeeper.

In the case of a score change that will impact the ranking points earned during a match, the Head Referee should communicate with the Announcer that a score update needs to be posted and announced. A score change that does not change the win/loss/tie outcome of the match or the ranking points earned by one or more alliances does not require an announced updated score posting.

The need to pre-share a match outcome impacting score change is even more critical during the playoff matches. Make sure to communicate with the Announcer for the event prior to the beginning of the playoff matches to help them understand the timing of possible team challenges to help avoid premature announcement of match outcomes – and potentially incorrect identification of alliances advancing during the playoff matches.

Taking the time to manage the announcement of match outcomes during playoff matches will help avoid considerable upset from the teams involved.

Match Replays

Generally, match replays are rare and are a result of an Arena Fault or a match that was stopped due to anticipated field damage or personal injury. The errors that can be considered an Arena Fault are listed in T201. If an Arena Fault has occurred, the following must also be true in order for a match replay to occur.

- At least one team on an affected alliance in the match in question must request a replay.

Scheduling a match replay should be done by the FTA and Head Referee and clearly communicated to teams. Match replays must comply with rules in the Competition Manual Section 13.2.

- The Head Referee has determined the Arena Fault must have reasonably affected the outcome of the match.

Field Staff (Referee) Errors

Some errors by Field Staff – aside from those covered in Section 10.8 – are considered Arena Faults. Any adjustment or delay in assignment of a penalty or scoring achievement (including those made after the match), including permitted Score Changes is not a Field Staff error for the purposes of determining an Arena Fault. However, a Referee making an incorrect call during a match that impacts how an alliance plays the match is considered a Field Staff error that may be eligible for a match replay, if the error impacted the outcome of the match.

For example, if a Referee incorrectly informs an alliance that they can enter scoring elements into the field when they may not or vice-versa, and this error causes the alliance to act in a manner that impacts how they play the match, that Field Staff error is grounds for a match replay.

False Starts

Generally, a "false start" to a match occurs because one or more teams started Auto before the match start signal or because the scoring system did not start the match timer. False starts sometimes occur due to human error, such as miscommunication or nerves.

Avoid false starts by:

- Establishing and consistently executing signals with other volunteers like Announcers and Scorekeepers.
- Identifying potential causes of a false start such as audio bleed in a multi-division event. Warn teams of these issues and remind them to pay attention and wait for the correct cue.
- Reminding teams of the match process that will be followed.

If a false start occurs:

- If the timer has not started but all teams have started:
  - have the Scorekeeper start the timer,
  - advise Official Scorers to keep track of the score, and
  - advise teams to wait until the timer has caught up with the end of Auto before proceeding with their transition activities.
- If the Head Referee can reasonably determine that it was an Arena Fault (e.g., error by Field Staff), but no damage occurred requiring field element repair, the:
  - robots should be stopped & reset, and
  - the match should be re-started as soon as pre-match setup is completed and teams are ready again.
- If the false start is the error of an individual team, the match should proceed as normal. G401.A applies for a team that false starts.

Alliance Captains' Meeting

The Head Referee is responsible for having a brief meeting with the teams who are competing in the playoffs. Typically, this only involves the alliance captains (i.e., one individual student from each alliance lead); however, a reasonable accommodation in cases where an issue such as a language barrier is present is to include one representative from each team participating in playoff matches. Note: the team representative(s) that participated in alliance selection may or may not be the alliance lead who should participate in this meeting. Allow teams to swap their representative in the arena prior to this meeting.

This short meeting is held just after alliance selection has concluded. The Head Referee should provide a quick rundown of the playoff match flow as well as some of the relevant rules listed in Section 13 of the Competition Manual. In addition, the Head Referee should emphasize a few key differences between qualification matches and playoff matches.

Recommended talking points are available in the Head Referee scoring system tablet under "Referee Score Tracking" > "Head Referee" > "Notes" under the "Meeting" drop down, or they can be found in the Alliance Captains' Meeting Talking Points section.

Tracking Verbal Warnings, Cards, and Escalating Violations

The Head Referee is not expected to track every violation given in each match.

The Head Referee must track:

- violations that can escalate over multiple matches, and
- all violations that result in yellow cards or red cards during the event (T401.A).

For Verbal Warnings, the Head Referee:

- must track Verbal Warnings that can escalate over multiple matches (e.g., G301),
- should not track Verbal Warnings that have no escalation path (e.g., personal safety rule violations), and
- is not expected to track, and should show restraint in tracking, Verbal Warnings that do not escalate with subsequent violations during the event (e.g., G409).

The Head Referee is encouraged to either use the notes feature on the Head Referee tablet or work with the Scorekeeper to print out the Head Referee Tracking Report from the scoring system.

The Head Referee should take notes in a way that is helpful for them. As an example, recording the rule number, team number, match number, the violation given, and the reason for the violation. If multiple Head Referees are at an event, they must coordinate taking notes in a way that ensures that key feedback and escalation is communicated to the other Head Referees. Any notes taken through the notes feature of the Head Referee are shared with all other Head Referees; however, direct communication with other Head Referees is recommended for escalating violations, whether notes are taken with this tool or not. All Head Referees must ensure that when a violation with an escalation path is called, they confirm whether this is the first violation or a subsequent violation in order to escalate appropriately.

STEM for Everyone™

FIRST makes reasonable accommodations for persons with disabilities who need and request accommodations.

The Head Referee may make exceptions to rules to allow for reasonable accommodation given the exceptions do not create an undue hardship or cause safety concerns.

The Head Referee should work with other Key Volunteers, including the FTA, Field Supervisor, and Event Director to ensure reasonable accommodations are provided to those who need them.

Accommodations around the arena can include, but are not limited to:

- allowing Drive Team members to wear items such as noise-blocking headphones and earbuds used as hearing aids,
- allowing Human Players tools used to assist in dexterity/reach,
- allowing a Drive Team member to hold part of the operator console during AUTO,
- allowing an additional person as a translator (e.g., sign language) to assist with communication in the Question Box,
- providing alternative accessible routes to reach parts of the arena, pits, or stands, depending on the venue, and
- providing supplemental visual or audio cues at the same time as in the *FIRST* Event Management System.

Team Interaction and Support

When interacting with teams, please always consider the team's perspective. The teams have put significant time and effort into preparing for this event and may be feeling very stressed about everything working out as they have planned. **Today is a very big deal for the team, and we are here to help!** General guidance for team interactions can be found below with more recommendations and best practices located in the Escalation Guidlines .

In general, Referees and other volunteers should direct questions to the question box to ensure that questions are being appropriately escalated to the Head Referee. Head Referees should not offer their feedback or commentary on any matches from the event during the event. Consider any Referee discussion or calls from the event as confidential information that should be kept private. Avoid offering opinions on gameplay strategies, interpretations of rules, or critiques of videos of matches.

While it's our job to help guide the teams to a successful event, it's their responsibility to follow the rules and be on time for judging and matches.

If you feel there is an issue with an individual or several individuals from a team that warrants specific intervention beyond just a kind reminder, please ensure the correct stakeholders for the team are aware. Here is a generally acceptable process when working with a student or team who you need to change their behavior:

The ABCs of Managing Team Behaviors	
Ask for an Adult	Do not directly reprimand a student one-on-one without an adult from their team present. Ask the student to bring an adult who is responsible for the team to meet you, before moving forward with any discussion about the concerns at hand.
Be aware of the Environment	Is the environment conducive for the feedback you are about to give? Is it loud in the area where you are? Are there other teams around that may hear the reprimand? Moving the conversation to a quieter, more private space as needed can be helpful.
(Offer a) Clear Explanation	Explain the concern to the team and offer clear examples of the behavior that is concerning.
Discuss any Questions	Offer the opportunity for students and adults to ask clarifying questions.
Explain Next Steps	Outline with the students and adults what the next steps are if the issue is not corrected. Certain behaviors may include the risk of yellow cards.

Note: the only person at an event who can give an official Verbal Warning or issue a yellow/red card is the Head Referee. Please refer to the Escalation Guidelines and escalate more severe issues to *FIRST* Headquarters or the Program Delivery Partner.

Volunteers should not provide feedback about team behavior to the Judges. Concerns about team behavior should be handled through the normal escalation channels as described in Section 1 of the Competition Manual. If there are issues which are repeated or egregious follow the process for `Reporting Other Issues or Concerns` and inform the Program Delivery Partner. The Judge Advisor may seek feedback from the Event Director to determine if there is any relevant information to provide the Judges for their evaluation process.

Teams may only be completely disqualified from awards consideration for very rare egregious actions and only with approval from *FIRST* HQ. The Event Director and/or JA must call the on-call number to discuss the issue.

Conflict of Interest

> **Conflict of Interest** – a conflict between the private interests and the official responsibilities of a person in a position of trust.

All listed volunteer roles will be asked to disclose any potential Conflicts of Interest, and to complete the Conflict of Interest and Disclosure form. During the `Scoring & Referee Logistics Meeting` Head Referees should ask all Referees and Official Scorers to declare any potential conflicts. Some scenarios of Conflict of Interests:

- a coach/mentor volunteers as a Referee,
- a parent/relative of a team member volunteers as a Referee,
- a recent alum (student or adult) of a team competing at the event volunteers as a Referee, or
- a sponsor of a team competing at the event volunteers as a Referee.

Having a Conflict of Interest, or even the perception of a Conflict of Interest, can affect a team's experience, even if decisions that were made throughout the day were not biased in any way. The perception of potential favoritism is enough to discourage a team, coach, or mentor, and take away from their overall experience at an event. Knowing what Conflict of Interest is, and how to avoid being in a position that could be a conflict will ensure all teams feel they have been evaluated fairly.

> All event volunteers have a very important duty to do what is best for the event. This means they must treat all teams with fairness and respect. Volunteers should use prior *FIRST* experience to help inform their decisions but should not use prior knowledge or perception of any specific team to inform their decisions either good or bad. Every team, at every event, deserves a fresh blank slate with all volunteers.

A volunteer who does not disclose their conflict of interest can compromise the integrity of *FIRST* Tech Challenge events. In judging, this could cause teams affiliated with the volunteer with a Conflict of Interest to be removed from consideration for awards in consultation with *FIRST* Headquarters.

Conflict of Interest, in some cases, can be quite easy to see. In other cases, it may be less obvious, and it may be difficult to decide what constitutes a true Conflict of Interest. In some cases, the bias may be apparent, while other times a Conflict of Interest may be perceived by a team or a coach. It is best to keep the following in mind when volunteering:

- Be open and forthcoming about any conflicts you may have with a team competing at the event with your role leadership.
- If there is a known Conflict of Interest, avoid making decisions about a team that would change the outcome of the day, such as speaking for or against a team in judge deliberations, or holding some teams to a different refereeing standard than others.
- Remove yourself from any situation that could be perceived as a Conflict of Interest.

Below is one example of a Conflict of Interest. Keep in mind this is an example, and there are many forms of Conflict of Interest, and ways to handle it.

Parent/Relative/Alumni of a Team

If a parent or a relative of a team member, or an alum of a team is volunteering at an event, this volunteer must abstain from making any decisions that could affect the results of the tournament. Whether volunteering as a Judge or as field personnel (Referee, *FIRST* Technical Advisor, etc.) it is important to have that volunteer remove themselves from making any decisions related to that team. For example:

- If the volunteer is a Judge, they must recuse themselves from any conversations about that team during deliberations.
- If the volunteer is a Referee, they should not be involved in any decisions around penalties, match replays, etc.
- Keep in mind that there are many ways Conflict of Interest can be presented, from parents to sponsors. Make sure to remove any apparent Conflicts of Interest but also keep in mind any perceptions of conflicts.

Emergencies

The Program Delivery Partner, Event Director, and the event site host organization are responsible for having safety and security plans in place for each event. Included in the plan should be topics such as:

- a map of all the emergency exits,
- knowledge of where on-site medical support is located,
- shelter in place plans in the case of severe weather, and
- evacuation plans.

Lost Children

FIRST Tech Challenge events can be very hectic, and it can be easy for a child to get lost amongst the shuffle of a busy event. Ensure you have a plan prior to the event in the instance of a lost child.

In some cases, the team roster will list Coach phone numbers which can be used to reunite team members, in some regions they collect “Day-of” cell phone numbers from each team at check in. Coordinate your plan with your Program Delivery Partner.

Code Adam Guidelines (www.missingkids.com/CodeAdam) are also a great resource.

Medical Incident Reporting

Event volunteers are not responsible for diagnosing student injuries, handing out medication, or first aid equipment. You and other event volunteers should refer medical issues and emergencies to a medical professional on site, such as an EMT. If an incident or illness occurs at an event, the Event Director, Pit Administrator, or another trained delegate should do the following:

- Call 911 if there is any question whether the injured person/persons require urgent medical attention.
- Respond to the scene immediately. Bring a clipboard, pen, or a electronic device to complete the incident report on the *FIRST* Reporting Portal.
- Complete the incident report for the injured party.

www.firstinspires.org/report

The Event Director or Pit Administration volunteers are responsible for completing incident reports. The incident reporting person should follow the best practices for incident reporting:

Best Practices for Incident Reporting	
Be Calm	Anyone handling incident reporting should have a calm demeanor. They should be able to collect information and talk to witnesses without assessing fault.
Be Concise	In all conversations with the injured, witnesses, spectators, and/or media always say "the incident is being investigated" without any further comment. It is not the job of the report collector to provide any opinions on the situation at hand.
Be Risk Conscious	Do not imply liability or any payment, as no one knows for sure until all the facts are collected.
Be Prepared	Those taking in incident reports should be able to communicate with the insurance company if necessary. They should also be aware of who they need to share incidents with, including the local Program Delivery Organization or the Event Director.

Although most incidents will not result in a claim, it is better to act on the side of caution and report them. Should an incident result in a claim after the event, the documents will be on file, complete with witnesses and a written report.

www.firstinspires.org/report

Youth Protection Reporting

Issues that are non-medical but are of concern to a participant/participants should also be reported. Anything that happens during an event that made a youth volunteer, team member or spectator feel uncomfortable or threatened should be addressed.

As appropriate and if you feel safe doing to, speak directly with the offending party and try to quickly and calmly defuse the immediate issue. Call the Event Director and/or the Program Delivery Partner and inform them of the issue and seek assistance as needed with any immediate remediation of the issue.

Ensure all issues are reported in a timely manner using the *FIRST* Reporting Portal. Youth Protection Concerns encompasses a wide variety of one-time or ongoing issues such as suspected abuse, bullying, harassment, discrimination, questionable behavior, or violation to the *FIRST* Code of Conduct.

Reporting Other Issues or Concerns

Feedback about issues such as game play, rule changes, awards, and event management (other than medical/safety issues) are considered program related concerns and not youth protection issues and should be shared with *FIRST* via customerservice@firstinspires.org or by contacting support.

Please note that match results and award results are final and that we will not review match videos.

help.firstinspires.org/s/contactsupport

Safety

An important priority for all volunteers is to observe their event areas to help promote a safe and orderly space for all the participants. It's likely that various volunteers and event participants will bring concerns to your attention, but you should also be proactive in identifying areas of concern.

Prioritize working with the teams to help identify and correct potential safety issues in the area. Please review the section about `Team Interaction and Support` for the best ways to work with teams on making changes.

Safety Glasses and Closed Toe Shoes

All volunteers, teams, coach/mentors, and spectators are required to wear closed toe shoes while in the pit and competition area. Safety glasses are required in specified areas. It is important to watch out for anyone entering these areas without proper Personal Protective Equipment (PPE) and to ask them to put on proper PPE before entering. Some events will have volunteers staffed at the pit entrance with spare safety glasses to pass out. Other events may not have spares to provide.

Pit Spaces

Specific rules governing what teams can have and do in their pit space are covered in the Competition Manual, but the Event Directors may add additional restrictions which must be published before the event based on limitations set by the venue.

Common areas where teams need help to stay safe and within the rules:

- No open flames or sparks.
- Power tools are generally permitted as long as they are not causing damage to the venue.
- Aisles, walkways, and doors should be clear of obstructions.
- Teams may set up practice spaces as long as they are fully within their designated space.
- No structure may be taller than 10 feet.

End of the Day

At the end of the day, Head Referees must return any borrowed devices (smartphone or tablets) to the Scorekeeper/scoring tables. Be sure to check with the Head Referee or Event Director whether or not a borrowed volunteer shirt (if provided) is to be returned at the end of the day. Head Referees may assist other volunteers with the teardown of the event.

Outside Events

After the event is over, your role has ended. Please do not provide additional feedback or commentary on any matches from the event after the event. Consider any Referee discussion or calls from the event as confidential information that should be kept private.

If asked game or gameplay questions, you should direct teams/students/mentors/coaches to the official resources, including the *FIRST* Tech Challenge Team Q&A.

Online Interactions

Referees and Head Referees need to be aware of their interactions with teams/coaches/mentors while active on social media or online communication platforms. Care should be taken to remember that outside of an event, your role as a Referee has ended. You should refer all questions to sources for official answers like the team Q&A forum.

Because of your volunteer role, teams may identify you as a source of information and support and seek you out to ask questions. You should avoid offering opinions on gameplay strategies, interpretations of rules, or critiques of match video. Conversations that take place at events with teams, students, or other key volunteers should not be shared or discussed.

Important Tools

Public Schedule

The Program Delivery Partner or the Event Director should publish the public schedule of events before the event. This schedule will have a high-level overview of all the activities for the event. It is important that everyone at the event does their best to stay true to the public schedule so that teams and volunteers who have planned their day around these times have a good experience.

Time	Agenda
7:15 am	Doors Open for Staff & Key Volunteers
7:30 am	Judges and Inspectors Report
8:00 am	Doors Open for Teams
8:30 am	Judging & Inspection Begins
10:15 am	Team Check-in Hard Deadline (Check the Competition Manual)
10:30 am	Match schedules are generated and distributed to teams. (Check the Competition Manual) *Note to Scorekeeper: 6 Matches total* (Check the Competition Manual)
10:40 am	Drivers' Meeting with Head Referee & Opening Ceremony
11:00 am	Qualification Matches 1 - 8 *Note to Scorekeeper: 7-minute cycle-time*
12:00 pm	Lunch
12:45 pm	Qualification Matches 9 - 45 *Note to Scorekeeper: 5-minute cycle-times*
3:50 pm	Qualification Matches Projected End
4:00 pm	Alliance Selection
4:00 pm	Judging is Concluded
4:20 pm	Double Elimination Rounds 1 - 4
5:10 pm	Award Ceremonies Start & Double Eliminations Round 5
6:20 pm	Projected End of Event
7:00 pm	Doors Close
Occasionally things that happen out of the event's control may impact the schedule. In these cases, work closely with the Event Director to understand the updated agenda.	

Figure 3: Example Schedule for a 30 Team Event with Traditional Judging

SAMPLE

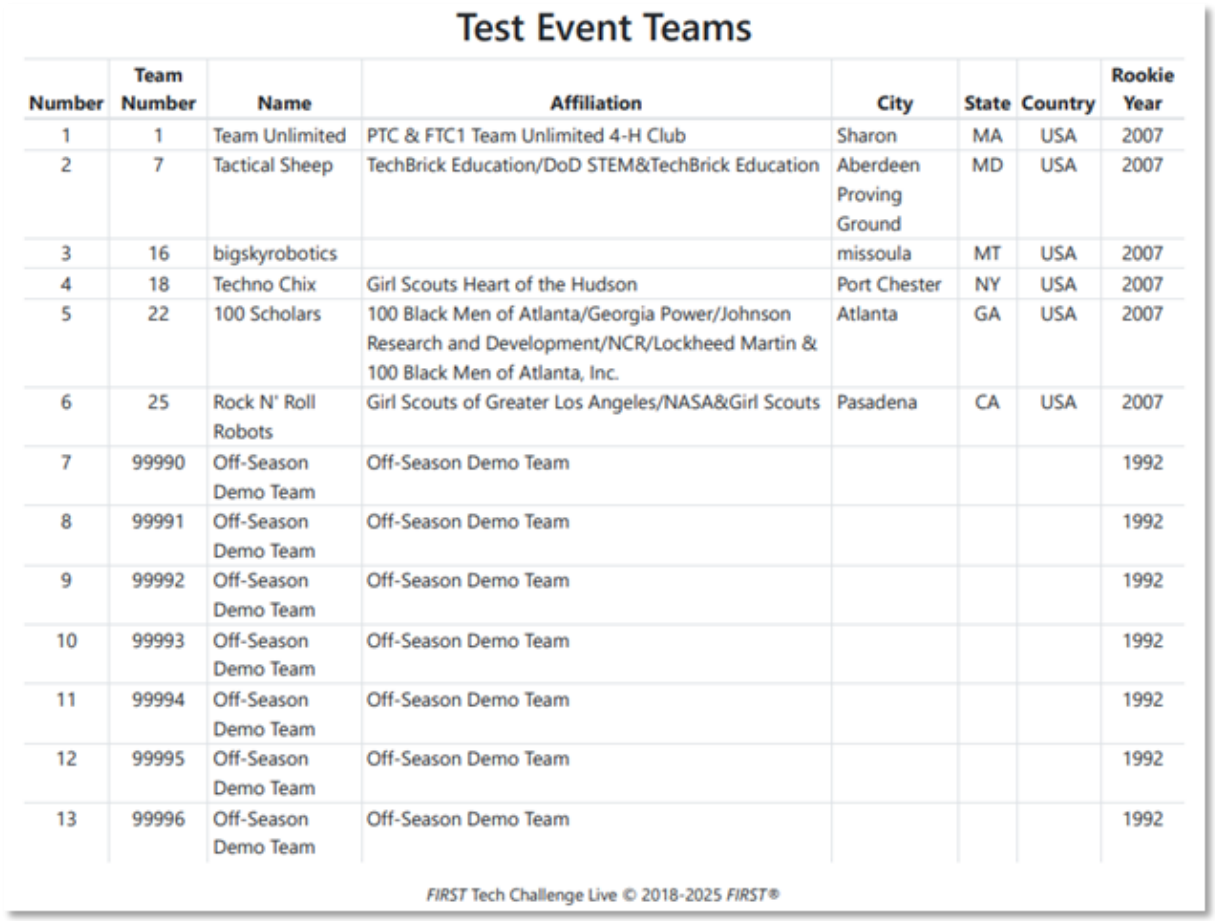
Time	Agenda
7:15 am	Doors Open for Staff & Key Volunteers
7:30 am	Judges and Inspectors Report
8:00 am	Doors Open for Teams – Teams should plan to arrive before 8:30
8:30 am	Pit Judging & Inspection Begins
9:00 am	Team Check-in Hard Deadline (Check the Competition Manual)
9:30 am	Match schedule is generated and distributed to teams. (Check the Competition Manual) *Note to Scorekeeper: 6 Matches total* (Check the Competition Manual)
9:40 am	Drivers' Meeting with Head Referee & Opening Ceremony
10:00 am	Qualification Matches 1 – 8 *(Note: 7-minute cycle-time)* Qualification Matches 9 – 21 *(Note: 5-minute cycle-time)*
12:00 pm	Initial Judging Pit Interviews Completed
12:00 pm	Lunch
12:45 pm	Qualification Matches 22 – 45 *(Note: 5-minute cycle-time)*
2:50 pm	Qualification Matches Projected End
3:00 pm	Alliance Selection
3:00 pm	Judging is Concluded
3:20 pm	Double Elimination Rounds 1 - 4
4:10 pm	Award Ceremonies Start & Double Eliminations Round 5
5:20 pm	Projected End of Event
6:00 pm	Doors Close
Occasionally things that happen out of the event's control may impact the schedule. In these cases, work closely with the Event Director to understand the updated agenda.	

SAMPLE

Figure 4: Example Schedule for a 30 Team Event with Pit-only Judging

Registered Teams List

The Program Delivery Partner may provide a list of teams registered for the event or the Scorekeeper can export a report of all the registered teams for the event. Sometimes this list may change the day of the event based on which teams show up. The Scorekeeper report will have the most accurate information about who is competing at an event. Notes that teams may be competing only in the judging portion of the event and not have a robot present.



Test Event Teams

Number	Team Number	Name	Affiliation	City	State	Country	Rookie Year
1	1	Team Unlimited	PTC & FTC1 Team Unlimited 4-H Club	Sharon	MA	USA	2007
2	7	Tactical Sheep	TechBrick Education/DoD STEM&TechBrick Education	Aberdeen Proving Ground	MD	USA	2007
3	16	bigskyrobotics		missoula	MT	USA	2007
4	18	Techno Chix	Girl Scouts Heart of the Hudson	Port Chester	NY	USA	2007
5	22	100 Scholars	100 Black Men of Atlanta/Georgia Power/Johnson Research and Development/NCR/Lockheed Martin & 100 Black Men of Atlanta, Inc.	Atlanta	GA	USA	2007
6	25	Rock N' Roll Robots	Girl Scouts of Greater Los Angeles/NASA&Girl Scouts	Pasadena	CA	USA	2007
7	99990	Off-Season Demo Team	Off-Season Demo Team				1992
8	99991	Off-Season Demo Team	Off-Season Demo Team				1992
9	99992	Off-Season Demo Team	Off-Season Demo Team				1992
10	99993	Off-Season Demo Team	Off-Season Demo Team				1992
11	99994	Off-Season Demo Team	Off-Season Demo Team				1992
12	99995	Off-Season Demo Team	Off-Season Demo Team				1992
13	99996	Off-Season Demo Team	Off-Season Demo Team				1992

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Figure 5: Competing Teams Report

Volunteer Roster

The Volunteer Coordinator or the Program Delivery Partner will have access to a list of applied and assigned volunteers for the event.

Event Layout/Map

The Program Delivery Partner and Event Director should publish a map of the venue before the event. In some cases, details on the map might not be available until the day of the event.

The Event Layout / Map should detail the following:

- Load-In Path,
- Parking for Personal Vehicles and Busses,
- Team Check-in,
- Volunteer Check-in,
- Competition Area,
- Pit Area (May include the `Pit Map`),
- Judging Room Locations (if applicable), and
- Safety Details as available (Emergency Exits, AED, Shelter in Place Locations).

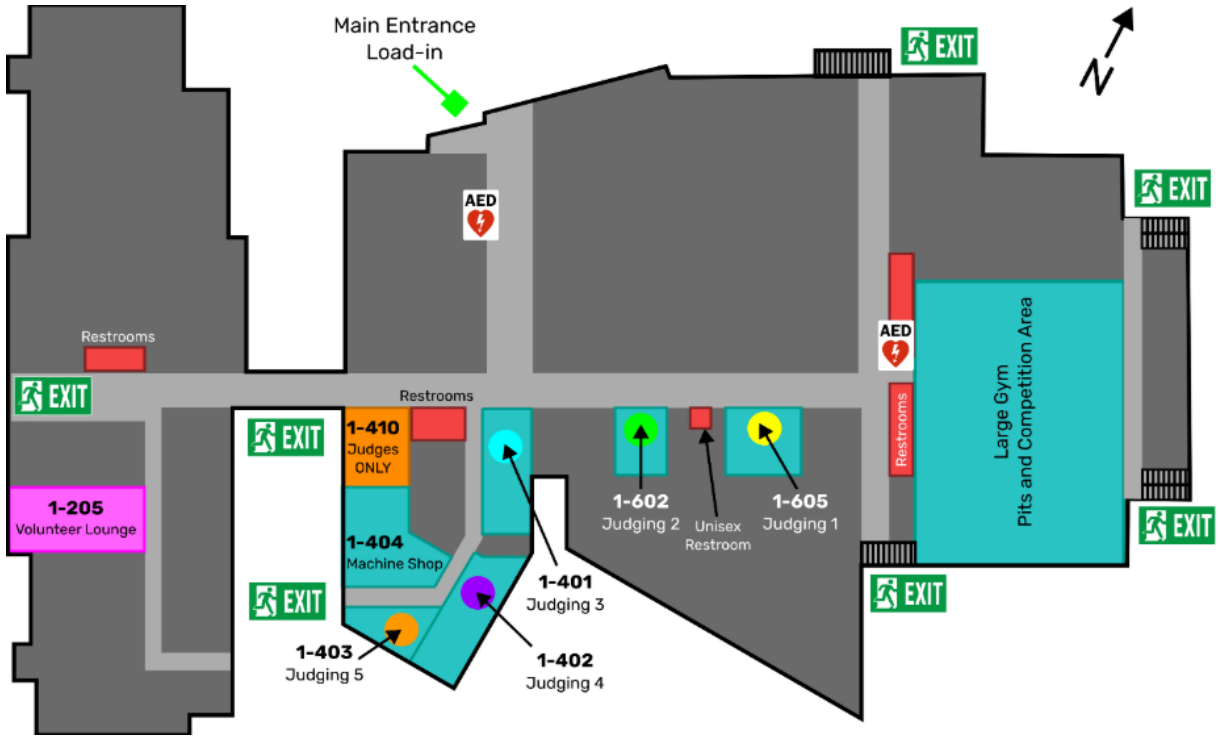


Figure 6: Example Event Map

Judging Schedule

	Panel 1 *Room 1605*	Panel 2 *Room 1602*	Panel 3 *Room 1401*	Panel 4 *Room 1402*	Panel 5 *Room 1403*
08:30 AM –	22077 Marcus Minions	8204 Blue Machine	–	27534 RoboChargers - Yellow	25783 Tech Titans
08:50 AM –	13542 RoboChargers - Blue	21171 ITKAN Robotics - M12	27532 RoboChargers - Orange	23344 Technical Turbulence	27536 RoboChargers - Gold
09:10 AM –	26300 Anomaly	27533 RoboChargers - Purple	20482 Wylie E. Robote	12430 Dub East	26693 Triad Robotics
09:30 AM –	23434 Cristo Rey Dallas Robotics	7172 Technical Difficulties	18871 RoboChargers - Green	18227 Area 52	19991 Chuckleheads
09:50 AM –	26542 Apex Genesis	13537 RoboChargers - Red	19564 ITKAN Robotics - MAS	19990 Marcus de-TECH-tives	13552 RoboChargers - Pink
10:10 AM –	27531 RoboChargers - Cyan	24563 Flower Mound Firewall	26722 Tech Support	27535 RoboChargers - Silver	20483 Wall East

Figure 7: Example Judging Schedule

Match Schedule

The match list will be generated on the day of the event after the teams have been confirmed. This schedule will list which teams will play in which alliance (Red or Blue) and it will also list a match start time. Some events will have more than one competition field. Some events will have more than one division, in which case each division will have its own schedule.

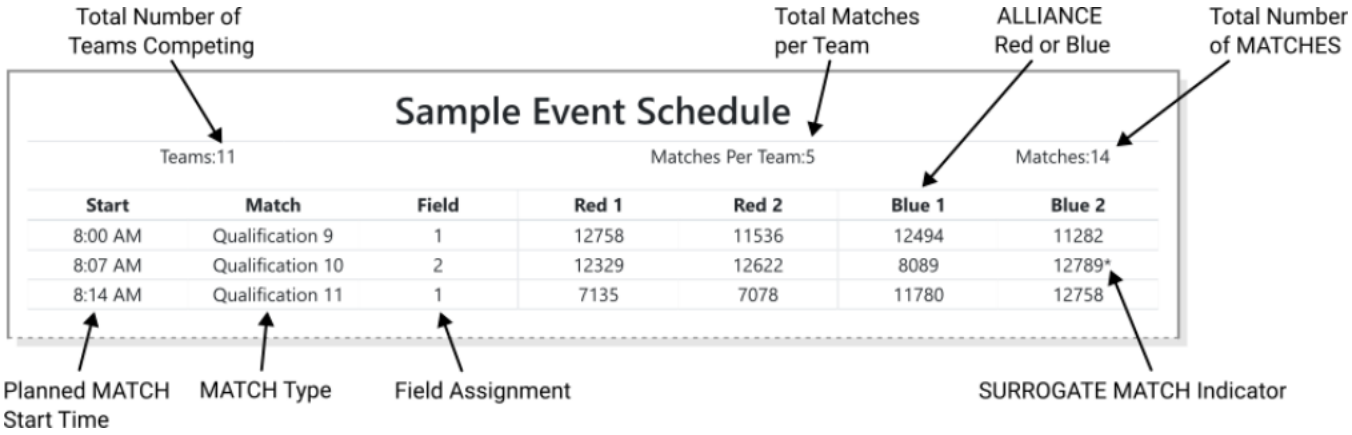


Figure 8: Example Match Schedule

Pit Map

Pit maps are typically provided by either the Event Director or by the Scorekeeper. Having a map of where each team is in the pit is key, as teams, parents or Queuers might need to find. Pit Maps created in FTC Scoring will appear on the FTC-Events page.

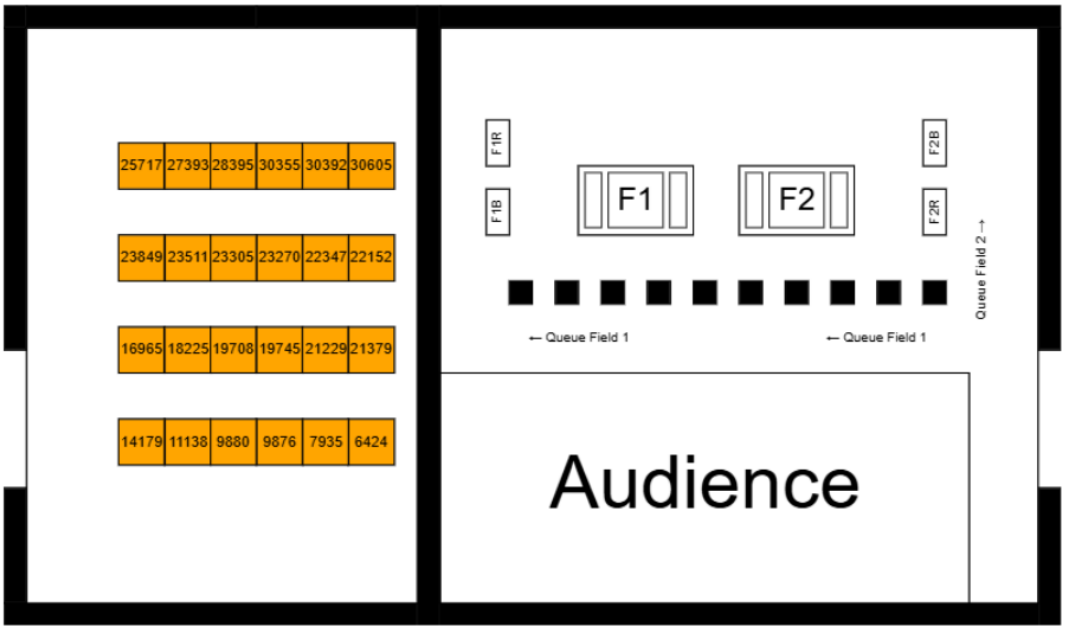


Figure 9: Example Pit Map for a 24-team Qualifier Event

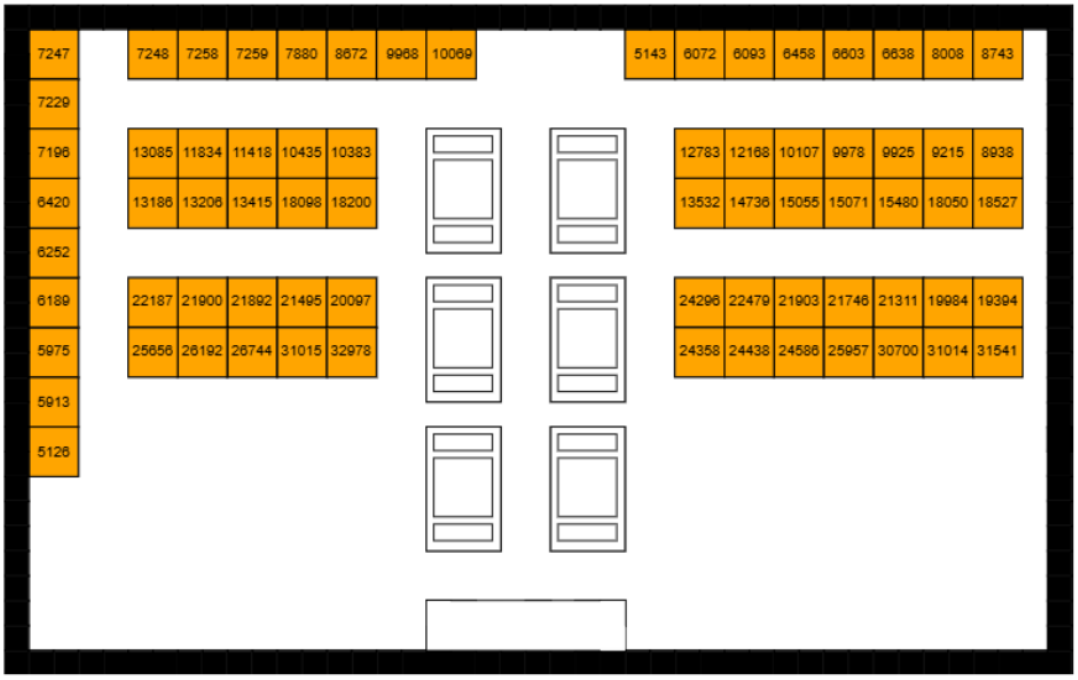


Figure 10: Example Pit Map for a 72-team Regional Championship Event

Useful Links and Information

On-Call Support Numbers

These numbers are for *volunteer support only*. Teams should not use these numbers to call about rulings or technical assistance.

Administrative, Judge, Referee and Non-Technical Issues:	(603)206-2412
Scoring System (FTC Live) or other Technical Issues:	(603)206-2450

Call, use the **built-in chat feature on FTC Live** available for events with internet access, or use the **FTC Referee Volunteer Slack** #all-event-support channel.

Pre-Event Support

Mon – Fri 8:30am – 5:00pm Eastern Time (UTC-4 or UTC-5)

Contact Support including live chat or email customerservice@firstinspires.org

Program Resources

Event Search

ftc-events.firstinspires.org

Game and Season Resources

ftc-resources.firstinspires.org/ftc/game

FIRST Tech Challenge Blog

Event Resources

ftc-resources.firstinspires.org/ftc/event

FIRST Tech Challenge Website

firstinspires.org/robotics/ftc

Volunteer Resources

ftc-resources.firstinspires.org/ftc/volunteer

Feedback

We strive to create support materials that are the best they can be. If you have feedback about this manual, please email customerservice@firstinspires.org or by contacting support. Thank you!