



FIRST® IN SHOWSM
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firstinspires.org/robotics/ftc

2023-2024 *FIRST*® Tech Challenge

Tournament Director

Sponsor Thank You

Thank you to our generous sponsor for your continued support of the *FIRST*® Tech Challenge!



Raytheon Technologies

Volunteer Thank You

Thank you for taking the time to volunteer for a *FIRST*® Tech Challenge event. *FIRST*® and *FIRST*® Tech Challenge rely heavily on volunteers to ensure events run smoothly and are a fun experience for teams and their families, which could not happen without people like you. With over 6,500 teams competing yearly, your dedication and commitment are essential to the success of each event and the *FIRST* Tech Challenge program. Thank you for your time and effort in supporting the mission of *FIRST*!

Revision History

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Introduction

What is FIRST® Tech Challenge?

FIRST® Tech Challenge is a student-centered program that focuses on giving students a unique and stimulating experience. Each year, teams engage in a new game where they design, build, test, and program autonomous and driver operated robots that must perform a series of tasks. Participants and alumni of FIRST programs gain access to education and career discovery opportunities, connections to exclusive scholarships and employers, and a place in the FIRST community for life. To learn more about FIRST® Tech Challenge and other FIRST® Programs, visit www.firstinspires.org.

Gracious Professionalism®

FIRST® uses this term to describe our programs' intent.

Gracious Professionalism® is a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community.

Watch Dr. Woodie Flowers explain *Gracious Professionalism* in this [short video](#).

FIRST Privacy Policy

FIRST take the privacy of our community seriously. As a nonprofit and a mission-driven youth-serving organization, we are compelled to understand who we are serving, how our programs are performing, and make improvements so that we can achieve our goals of making FIRST accessible to any youth who wants to be part of the fun, exciting and life-changing experience. Thus, we need to collect certain personal data from participants and volunteers to ensure we are meeting our goals and responsibilities as a youth-serving nonprofit organization.

As a volunteer, you may be asked to handle the personal data, or personally identifiable information (PII), of coaches, team members, and even other volunteers. It is critical that you understand and follow the [FIRST Privacy Policy](#) and complete any data protection and privacy training required by your role. If you have any questions regarding data protection and privacy, please reach out to the FIRST Data Governance Team at privacy@firstinspires.org.

Volunteer General Information

Our [FIRST Volunteer Handbook](#) is a comprehensive guide to the different ways people can volunteer with FIRST. It includes expectations, descriptions of training, policies, and more.

Learn more about the roles of volunteers on our [Volunteer Resources page](#), "Volunteer Role Descriptions

Volunteer Training and Certification

Volunteers must create an account on www.firstinspires.org and apply to the role. Upon application, training can be accessed from within the dashboard. Please follow these [instructions](#) to access training through the dashboard.

If you have applied for a role but do not see the link to training in your dashboard, or you have other training related questions please email FTCTrainingSupport@firstinspires.org.

Volunteer Minimum Age Requirement

The minimum age requirement for a *FIRST* volunteer is **13 years old**.

A minor must have a parent or guardian give written permission to volunteer. In addition, the *FIRST* Consent and Release Forms will need to be signed by a parent or guardian in the Volunteer Registration System for any volunteer under age 18.

Key Volunteer Role Minimum Age Requirement – Updated for the 2023 Season

Volunteers **MUST** be at least **18** years old before they can serve in the following Key Volunteer roles:

- Referee
- *FIRST* Technical Advisor
- Lead Scorekeeper

Volunteers **MUST** be at least **21** years old before they can serve in the following Key Volunteer roles:

- Judge
- Field Supervisor
- Lead Robot Inspector
- Lead Field Inspector
- Head Referee

Volunteer **MUST** be at least 23 years old before they can serve in the following Key Volunteer role:

- Judge Advisor

Local program delivery partners can make case by case exceptions to these guidelines by contacting *FIRST* for approval.

Bring a Friend!

Volunteers are a huge part of the *FIRST* Tech Challenge Program and continuing to inspire students to seek out careers in science, technology, engineering, and math (STEM). *FIRST* Tech Challenge needs your help in recruiting new volunteers to keep our programs thriving for future generations! If you have a friend or co-worker you think would be interested in volunteering at an event, there are just a few easy steps to help get them involved!

1. Check out our full list of [volunteer opportunities](#) online!
2. Have them apply for the event in the [Volunteer Registration System](#). Volunteers must be screened before volunteering.
3. Have them contact Firsttechchallenge@firstinspires.org with any questions they may have.

If they are concerned about jumping in headfirst, no worries! Job shadowing at a *FIRST* Tech Challenge event is a great way to get a taste of what a full day's worth of competition looks like. New volunteers can discover ways they can fit their personal skills into a volunteer position.

Helping Teams Succeed

A volunteer's primary goal is to help a team succeed so they can compete at the event. Teams spend countless hours, weeks and sometimes months working and reworking their robot design and strategies. After all this effort, some teams will still need a friendly volunteer to help create a positive event experience for the students.

Time commitment

Tournament directors should read this manual before the event. They should speak to the Program Delivery Partner to check for additional requirements, such as meetings before the event, setup planning, or run-throughs of the queuing path and schedule before the event.

Appropriate Dress

Wear comfortable shoes, most of the day will be spent standing and walking between the pit area and the competition fields. Shoes must be closed toed and closed back.

ANSI Z87.1 certified safety glasses are required in the pit area and the competition area.

Role and Responsibility of an Event Host

Tournament Director Role & Responsibilities

The tournament director's role is to plan and deliver *FIRST* Tech Challenge events, following the guidelines in this document, and the requirements in the agreement between the Program Delivery Partner and the tournament director, or between the Program Delivery Partner and *FIRST*.

The tournament director:

- Works with the Program Delivery Partner to secure event venues for the season's events
- Creates event schedule
 - Judge advisor may be asked to create judging schedules.
 - Lead scorekeeper may be asked to create match schedules.
- Creates floor plan and event layout for event day.
- Sets up load-in/load-out schedule.
- Works with the volunteer coordinator to identify staffing needs for the entire event.
- Serves as the principal liaison with the facility manager.
- Creates safety plan with Program Delivery Partner and facility manager.
- Coordinates food, t-shirts, etc. for events
- Communicates with teams about the event.
- Creates and implements AV plan and equipment.

A *FIRST* Tech Challenge tournament director plans, designs, and produces a *FIRST* Tech Challenge tournament, and agrees to follow the requirements set forth by *FIRST*, including, but not limited to:

- Game Rules
- Robot Rules
- Judging Rules
- Advancement and Eligibility Rules
- Ensuring teams meet participation rules.
- Safety Rules
- Volunteer Screening Rules
- Volunteer Certification Rules

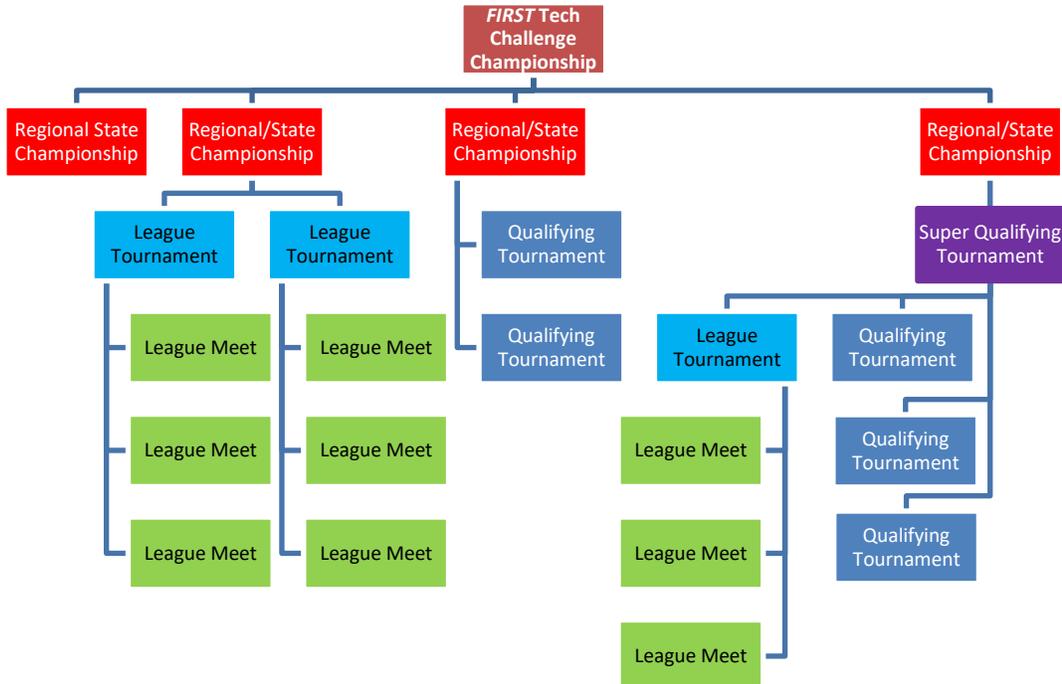
Failure to follow the requirements for an official event for *FIRST* Tech Challenge could result in the event being moved from an “official” status to a “non-official” status. Non-official events do not advance teams to the next event level.

The tournament director is **required** to send event results to *FIRST* within 5 days of the close of the event. The method of submission of the results can be found in the [Scorekeeper Guide](#).

Teams advancing to the *FIRST* Championship will not receive an invitation to the event until the Regional Championship results are uploaded. The *FIRST* Championship registration payment deadline is March 21, 2024.

***FIRST* Tech Challenge Tournament Structure**

The *FIRST* Tech Challenge program is both competition and merit based. The tournament structure is tiered with levels of advancement that lead to the *FIRST* Championship. Teams advance by accumulating ranking points and tiebreaker points received on the field and through judged awards. Program Delivery Partners decide the number of teams that will advance to state or regional championship tournament within their region. *FIRST* decides the number of teams that will advance from a state or regional championship tournament to the *FIRST* Championship event. To learn more about the advancement and ranking process, review the Game Manual Part 1, Section 6.0. *FIRST* Championship event. To learn more about the advancement and ranking process, review the [Game Manual Part 1, Section 6.0](#).



Hosting a FIRST Tech Challenge Tournament

What is a FIRST Tech Challenge Tournament?

A FIRST Tech Challenge Tournament is an event that provides an advancement opportunity for teams. A tournament follows exactly all the event rules provided. Including, but not limited to:

- Game Rules
- Robot Rules
- Judging Rules
- Advancement Criteria
- Volunteer Screening Rules
- Volunteer Certification Rules
- Team Eligibility Rules

A FIRST Tech Challenge tournament uses the season's official playing field, the season's official scoring system, and the organizer sends the event results to FIRST. Certification, through FIRST is required for key event volunteers. Only teams who are registered for the current season and are in good standing with FIRST may participate.

With these requirements, we hope to achieve a consistent experience for all participants.

*Note – teams must register in the FIRST Team Registration System and be in good standing with FIRST. In North America, this means that the team must have adults who have completed the FIRST Youth Protection screening in both the Lead Coach/Mentor 1 and Lead Coach/Mentor 2 roles. The season team registration fee to FIRST must also be paid. Teams outside of North America must register with FIRST and with the Program Delivery Partner in their home country and bypass the FIRST Youth Protection screening. **Unregistered teams are not allowed to compete in any level of official FIRST Tech Challenge tournaments.**

What is a Qualifying Tournament?

A qualifying tournament for a state or regional event may only be held with the agreement and involvement of the Program Delivery Partner. Your Program Delivery Partner will send you a qualifying tournament agreement for your region. Hosts of qualifying and league tournaments must sign a qualifying tournament or league agreement and follow a set of expectations in addition to those from FIRST and FIRST Tech Challenge. Be sure to understand and adhere to the requirements in the agreement.

For many teams, a qualifying tournament is the highest level of FIRST Tech Challenge tournament they will experience.

Qualifying tournaments follow the same judging and game guidelines and format of championship tournaments, but on a smaller, less expensive scale. Qualifying tournaments are usually held before championship tournaments in regions where there are many teams. The number of teams advancing to the regional championship tournament depends on the capacity of the regional championship tournament, the number of qualifying tournaments, and the number of teams attending the qualifying tournament. The

Official vs Endorsed vs Unofficial.

There are many types of FIRST Tech Challenge events. Some events are “official”, meaning that they are a part of the advancement structure for the FIRST Tech Challenge. “Endorsed” means that the event is not a part of the advancement structure for the program, but the event is hosted by or sanctioned by a Program Delivery Partner or FIRST Tech Challenge Headquarters. Other events are “unofficial” and could be hosted by anyone with an interest.

Official and endorsed event information provided by the Program Delivery Partners is promoted on the www.firstinspires.org website and via the @FTCTeams Twitter and Facebook accounts. Unofficial events are not promoted by FIRST or FIRST Tech Challenge.

advancement criteria for moving up to the next level of tournament is detailed in Section 7.0 of the *FIRST* Tech Challenge [Game Manual Part 1](#) and must be followed exactly. Each team must be scheduled to play in not less than five, and not more than six qualification matches. The game must be played exactly as described in the Game Manual. Robots must pass robot and field inspections, and the judging must exactly follow the guidelines outlined in the [Judge Manual](#). In North America, all volunteers must be screened. At all events *FIRST* Tech Challenge certified volunteers must be used in key roles.

When planning a qualifying tournament, please note that you must have at least 12 teams registered. **Your team count at a qualifying tournament cannot exceed 36 teams without prior approval.**

What is a League Tournament?

A league tournament, (formerly called league championship tournament) for a state or regional event is the culminating event for league play. These events are hosted by league organizers and follow most of the guidelines as other official program tournaments, with the exception that team can only participate in one league and one league tournament.

League organizers, under the direction of, and with the permission of the Program Delivery Partner may hold a parent league tournament event for two or more child leagues at once. The meet results for the child leagues are stored in the scoring system, and the parent league tournament will begin with the combined rankings for the child leagues.

For many teams, a league tournament is the highest level of *FIRST* Tech Challenge tournament participation they will experience.

League tournaments follow the same judging and game guidelines and format of championship tournaments, but on a smaller, less expensive scale. League tournaments are usually held before championship tournaments in regions where there are many teams. The number of teams advancing to the regional championship tournament depends on the capacity of the regional championship tournament, the number of leagues, qualifying tournaments, and the number of teams attending the league tournament. The advancement criteria for moving up to the next level of tournament is detailed in Section 6.0 of the *FIRST* Tech Challenge [Game Manual Part 1](#) and must be followed exactly. League tournaments use a cumulative ranking (carried forward from league meet events). Each team must be scheduled to play in not fewer than five, and not more than six qualification matches at the league tournament. The game must be played exactly as described in the Game Manual. Robots must pass robot and field inspections, and the judging must exactly follow the guidelines outlined in the [Judges Manual](#). In North America, all volunteers must be screened. At all events *FIRST* Tech Challenge certified volunteers must be used in key roles.

When planning a league tournament, please note that you must have at least 12 teams registered. **Your team count at a league tournament cannot exceed 36 teams without prior approval.**

What is a League Meet?

A league meet is a one-field competition that is comprised of qualification matches only. There are no elimination matches, official judging, or awards at a league meet. The league meet is approximately 3-4 hours long and includes: set-up, inspections, a minimum of five or a maximum of six matches per team, and tear down. League meets may include judging practice.

League meets must follow the same game play, hardware, software, and field inspections, as well as volunteer screening requirements as any other official *FIRST* event. Teams may play in as few or as many league meets as they choose.

All teams within a league participate in a league tournament. When the league meet data is imported into the scoring system at the league tournament, the scoring system takes each team's best ten ranking points and tiebreaker points to determine the starting ranking points and tiebreaker points for each team. Should a team

not have ten match results, the system will take all the available results for the team and will impact their initial standings at the league tournament.

What is a Championship Tournament?

A championship tournament is a state or regional event that is usually managed by a Program Delivery Partner.

For many teams, a championship tournament is the highest level of *FIRST* Tech Challenge tournament participation they will experience.

A regional championship tournament is made up of teams who advanced through events held in that region (see [Tournament Structure Chart](#)). A region may have an unlimited number of qualifying tournaments, or as few as three. The Program Delivery Partner is responsible for making sure that only those teams registered and in good standing (event ready) with *FIRST* Tech Challenge compete in the qualifying tournament and for providing the qualifying event director with detailed team registration and advancement requirements for the region.

Championship tournaments follow the same judging and game guidelines and format as all other *FIRST* Tech Challenge events, but on a larger scale. The number of teams advancing to the regional championship tournament depends on the state/region allocation allotment to the *FIRST* Championship event. The advancement criteria for moving up to the *FIRST* Championship is detailed in Section 6.0 of the *FIRST* Tech Challenge [Game Manual Part 1](#), and must be followed exactly. Each team must be scheduled to play in no fewer than five and not more than six qualification matches. The game must be played exactly as described in the Game Manual. Robots must pass robot and field inspections, and the judging must exactly follow the guidelines outlined in the [Judge Manual](#). In North America, all volunteers must be screened. At all events *FIRST* Tech Challenge certified volunteers must be used in key roles.

When planning a state or regional championship tournament, please note that you must have at least 12 teams registered. **Your team count at a championship tournament cannot exceed 36 teams without prior approval.**

What is a Scrimmage?

A scrimmage is not considered an official tournament, but many teams and organizers who host scrimmages follow the same event planning guidelines that the host of an official tournament host might follow. Teams and volunteers who are interested in hosting a scrimmage are encouraged to use this guide to help them to plan a successful event.

Event Structure

Official tournaments must follow the structure given by *FIRST* Tech Challenge staff and the state or regional Program Delivery Partner. Variations to the structure of an event must be approved in advance, and in writing by *FIRST* Tech Challenge.

A regional championship tournament is made up of teams who advanced through events held in that region (see [Tournament Structure Chart](#)). A region may have an unlimited number of qualifying tournaments, or as few as three. The Program Delivery Partner is responsible for making sure that only those teams registered and in good standing (event ready) with *FIRST* Tech Challenge compete in the qualifying tournament and for



providing the qualifying event director with detailed team registration and advancement requirements for the region.

Planning Timeline

Planning for qualifying tournaments should begin as early as possible. For large events like championship tournaments, planning could begin a year ahead of time. For smaller events, like league meets, a much shorter window is possible. The following table outlines tasks and when they should be completed using an 8-month timeframe. This timeline should be adjusted to your needs and is only a guideline.

Task	7-8 Months Before	4-6 Months Before	2-3 Months Before	1-2 Months Before	After
Sign a tournament agreement with your Program Delivery Partner (if applicable).					
Recruit tournament committee.					
With your Program Delivery Partner, determine region and event type (Open Region or Closed Region), (League or Qualifier), (Traditional, or Remote, or Hybrid)					
Determine event size and number of teams to advance.					
Begin to recruit and train volunteers.					
Tournament website ready.					
Select and contract event venue.					
Send event information to your Program Delivery Partner or add it to the Scoring System.					
Reserve equipment.					
Order field perimeter and tiles (if needed).					
Order game elements.					
Site visit with event manager and technical director.					
Create emergency plan.					
Begin to recruit and train referees.					
Begin to recruit and train judges.					
Adjust volunteer roles where conflict of interest is present.					
Begin inviting VIPs and keynote speakers.					
Hire/Invite disc jockey, MC, and game announcer.					
Contact media.					
Begin program book and registration packets.					
Order trophies and medals.					
Begin assembly of equipment.					
Design and order volunteer shirts.					
Begin accepting tournament applications from teams.					
Create a site map. Note exits. Ensure proper aisle spacing.					
Email teams a link to event information.					
Order food and beverages for volunteers.					
Train remaining volunteers.					
Assemble field elements. Test Everything!					
Assemble supplies, including signage.					
Assemble or procure robot sizing box(es).					
Confirm volunteers.					
Obtain Certificate of Insurance.					
Confirm team registration. Send teams tournament information including site map, schedule, team security checklist, and preparing to safely attend a FIRST event document.					
Confirm rentals/reservations.					
Print and assemble manual binders and blank forms.					
Produce judge and referee sheets, schedules, and team lists.					
Confirm key volunteers are certified.					
Head Referee quality checks game elements.					
Have scorekeeper publish event results.					
Send thank you letters to VIPs and volunteers.					
Review evaluations and send to FIRST.					
Schedule tournament committee debriefing.					
Send videos, pictures, and articles to FIRST.					
Return rosters and Consent and Release forms to FIRST.					

Finances

A tournament director must fund their event. Most generate their funding through a combination of team registration fees and sponsorships. Some Program Delivery Partners provide materials to their tournament hosts, and some do not. If you are not the Program Delivery Partner, but are an event host, your Program Delivery Partner will tell you about regional standards for tournaments, and what materials they will provide to you when you sign your hosting agreement. A best practice is to develop your budget expenses and an income plan at the beginning of your planning process.

Tournament directors are encouraged to build a finance committee to help with grants, proposals, and in-kind support, and to help manage the budget.

Finance Timeline

Task	7-8 Months Before	4 - 6 Months Before	2 - 3 Months Before	1 - 2 Months Before	After
Estimates collected, reviewed					
Budget finalized					
Fundraising plan implemented					
Sponsor development underway					
Sponsor recognition (before, during, and after event)					
Final budget completed					

Budget

Below is a sample budget for a 12-team event. Not every item must be purchased, but could be borrowed, or donated as an in-kind contribution.

Expenses		Notes
Training/ Workshops	\$300	Trains both teams and volunteers
Playing Field (Borders and Floor)	\$2,000	One-time cost for two fields; fields can be re-used. One game field, one practice field borders and floor tiles
Custodial, Security, Electrical	\$500	
Game Elements	\$920.00	For two fields, game elements @ \$460.00 plus shipping
Awards	\$300	Crown Trophy is the official supplier of tournament trophies. Championship Tournaments must be ordered from Crown Trophies. League and Qualifying Tournament trophies may be ordered through Crown Trophies, or through a local supplier
Catering	\$500	Breakfast, lunch, and snacks
Volunteer Shirts	\$250	
Signage	\$50	
Printing	\$100	
Equipment Rental	\$200	Typically can be borrowed from event host site. This includes tables, chairs, pipe and drape, stanchions, lighting, printers, computers, AV equipment

Misc.	\$150	
Safety Glasses for Volunteers	\$100	
Insurance	\$100	
Venue Rental	\$250	This price can vary significantly.
Total Expenses	\$5,720.00	
Income		Notes
Team Event Registration	\$900	Example: \$75 per team x 12 Teams = \$900
Sponsorship	\$5,500	
Total Income	\$6,400.00	
Balance		\$680.00

Sponsors

Sponsorship varies from region to region. If you are hosting a qualifying or league tournament, your Program Delivery Partner will share expectations for soliciting sponsors and/or sponsorship recognition for your event. Some regions have major sponsors that are recognized at all events, some regions have local sponsors, and others have a combination of both.

Sponsorship can come in the form of funding or in-kind donations. No item or amount is too small! Be clear with your potential sponsors of the value of their support and what they will receive in return. You can never thank your sponsors too much.

Sponsors for your event can receive recognition in various forms, including logo space on event advertisement, documents, press releases, websites or social media, and T-shirts. They should also receive a formal thank you and event report after the tournament. The event report could include photos of the sponsor, sponsor signage, and sponsored teams. Please do not add sponsor branding to official awards, or place sponsor branding on the competition field, game elements, or scoring elements. *FIRST* branding guidelines must be followed when incorporating a sponsor logo to *FIRST* materials.



When looking for sponsors, consider inviting the company employees to serve in judging roles. Our teams are our best spokespeople, and often the act of interviewing and speaking with teams can be a strong motivator for a sponsor to consider a greater future contribution to your region, or your teams.

FIRST Tech Challenge Sponsors

FIRST Tech Challenge program sponsors include RTX. This sponsor must receive recognition at every official event. This year Qualcomm is the *FIRST in Show* season presenting sponsor, RTX. RTX is the *FIRST* Tech Challenge season presenting sponsor.

These important relationships are referenced in the awards scripts, and in the scoring system. References to these sponsors cannot be altered or removed. The full name of the season challenge, CENTERSTAGE, presented by RTX. RTX must be used. *FIRST* also supplies all events with templates for event program books and awards PowerPoints. Both resources can be found in the [Tournament Director](#) section of the firstinspires.org website. These must be used as provided with no alteration of our global sponsor recognition. Tournament directors do not need to do any additional recognition for these sponsors unless their region or event receives additional support from our official sponsors.

Insurance

All FIRST Tech Challenge events **must** be covered by insurance. The host site, national, provincial, state, and local laws may require a specific amount of coverage. Competitions sponsored by schools or universities are usually covered by the host site's insurance policy. Make sure when choosing a venue that you verify insurance coverage and determine if you will need to purchase insurance.

The Venue – for Traditional and Hybrid Style Events

Setup, Preparation and Cleanup

- One-day full site access for load in
 - Try to set up the evening before. If that is not possible, be sure to staff enough volunteers to set up early the morning of the event
- When are you expected to be fully loaded out?
- What will the site do to help you with load in/load out?
- Is the site a union facility? How will that impact your budget? How will that influence your schedule?
- Who is responsible for site cleaning before and after the event? Will you need to pay for janitorial services?
- Who is responsible for trash removal and site maintenance during the event?

- Who is the key venue contact for unlocking doors?
- Who is the IT contact (if site WIFI becomes a problem for the event)?
- Is a facilities rental contract or form required?
- Does the gymnasium floor require a cover?
- Is a certificate of insurance required?

After you select your venue, work with your technical director and the site facility manager to create a site plan. Make sure to diagram all the components you need to run an event, including power drops, traffic patterns, and accessibility for teams, volunteers, and spectators. Share your site plan with your other key volunteers.

Your venue must meet some basic requirements for space, electricity, lighting, and safety. The checklist that follows covers the basics. Your event may have some additional requirements, or in the instance of League/Meets, fewer requirements:

Accessibility

- Access to major highways, hotels, food establishments, gas stations
- Be sure the venue can accommodate team members and guests of varying abilities and needs. You should communicate any special arrangements, such as alternative entrances or wheelchair accessibility, to teams in pre-event communication. Be sure that the space allows for ease of movement for spectators and team traffic during the event day, as well as plan for adequate travel space for the queuing path.
- Suggested: Access to free gender-neutral menstrual products in all restrooms.

Competition Area (for Traditional and Hybrid Events)

The pit area can be in the same room as the competition area, but locating it in another room can minimize traffic, crowding, noise, and wireless communication issues.

The competition area should include playing field(s), team queueing station(s), match timer(s), scoring table with printer, large screen(s), audience seating, awards table, and a podium (or space for opening and closing ceremonies and awards presentations).

Key layout considerations for efficient match turnaround:

- Keep the scorekeeper near the competition field.
- Plan the queueing path for teams travelling from the pits to the queueing areas to the competition field and back such that it never crosses audience, spectator, or other traffic to minimize delays. If a crossing is necessary, an assigned traffic control volunteer to prioritize robot traffic is needed. Most teams move their robots around on carts.
- Plan out cable routing to avoid being in common foot traffic areas.

You will want to plan space for:

- One or two each 12'x12' playing fields (add space for driver stations, walking space and 1 table for shot clock per field)
 - 12 to 24 teams – at least one competition field
 - 25 to 36 teams – at least two competition fields
- DJ (one 6' table)
- Awards table (one 6' table)
- Scoring table (one 6' table)
- Audio/Visual tables and gear
- Team queueing and smooth traffic flow
- Awards/Speaker area
- Bleacher seating for 500+ people for a two-field event.

Other considerations:

- Space to hang sponsor banners
- Video projection (screen and projector)
- Loading area (access and proximity)
- Ability to access a scissor-lift in facility (if needed)

Alternative Arrangement

Use the same large space to house competition and pit areas.

Perform robot inspection at team pit areas, instead of on a practice field.

**Work with your local Fire Marshall to understand the requirements about access, emergency exits, electrical code, etc.

In this area, you will need the following volunteers:

- Field supervisor (oversees this area)
- *FIRST* technical assistant(s) (If there is no Field supervisor, the FTA (*FIRST* Technical Advisor) is in charge)
- Referees
- Scorekeepers
- Emcee/game announcers
- Queuers
- Field resetters
- Judge match observers
- Floaters

Pit Area for Traditional and Hybrid Events

The pit area includes Pit Administration and a practice field, ideally these would all be close together, with robot inspection tables nearby (if used). Field inspection can be done on a practice field or on your competition field. Each team needs a table and access to electricity.

Be sure to put pit tables in numerical order to make the queuer's job easier in locating teams.

Inspection Layout:

- Designate an area for teams waiting for inspection to queue.
- Robot inspection can be done in a designated area, or in the pit space for each team. Either way, scheduled appointments for robot inspection can help you to make the best possible use of your time. Scheduling rookie teams for early inspections, and veteran teams for later inspections, and adding a bit of slack at the end of the schedule will help your robot inspectors to aid the teams who need it the most.
- Place robot inspection tables for easy flow and access
- Consider that the second part of inspection, the field inspection, is often performed on the competition field. Lay out inspection such that it is easy and obvious to move to the location where field checkout is performed.

Alumni Table:

- Designate a place for teams and participants to go to learn about *FIRST* Alumni Relations and the *FIRST* Scholarship Program. This can be a single 6' table. Information about resources for this table is in [Appendix C](#)

Other:

- In consideration of the efficient robot flow mentioned in the competition area section, plan the robot flow from the pit area to the competition area. If they are in two separate rooms, a doorway should be designated only to be used for drive team traffic to the competition area.

You'll want to plan space for:

- A 10' x 10' space for each team is optimal, but an 8' x 8' space for each team is allowable.
- One 6' table per team
- One 12' x 12' practice field
 - Can your host team provide a field and elements?
- One pit administration table
- Robot inspection: Four 6' tables or have robot inspectors travel from pit to pit for inspection.
- A 6' table for Alumni materials
- Space to hang signs, posters, banners.
- Aisles in the pit must be 8 feet or 2.43 meters wide.

Proximity between Pit and Competition Areas

- Efficient traffic flow
- Aisles at least 8' or 2.43 meters wide
- A single level travel path (teams should not carry robots up and down staircases)

More distance or more complicated access will require teams to spend a longer time in queue, adjust schedule accordingly.

In this area, you will need the following volunteers:

- Pit administrator (oversees this area)
- Robot inspectors
- Field inspectors
- Queuers
- Practice area supervisor

- Floaters

IT Equipment & Needs

Be sure to notify the IT staff at the venue that the robots at the event will be controlled wirelessly. Each robot will establish its own private 802.11 Wi-Fi network. These private networks will only be used to control the robots during competition. They will not connect to the venue's computer network.

Also, if you plan to use a wireless network to connect the scoring system computers, be sure to notify the IT staff that an additional network will be established to connect the scoring system devices. This scoring network will not connect to the venue's computer network.



See [Appendix B](#) for a letter from our program engineer that you can give to the venue IT staff.

Ask the venue for the name of someone on their IT staff that you can contact on the day of your event if a Wi-Fi suppression system is active and interferes with robot connection.

If you are using the venue AV system, you should have one venue AV staff on standby dedicated to support the AV needs of the event during the day of your event.

Remember to:

- Check for Wi-Fi suppressors (note that all Wi-Fi suppressors should be disabled for the tournament)
- If possible, turn off unneeded Wi-Fi access points at the venue.

Special Wi-Fi Requirements for an Adjacent FIRST Robotics Competition

Some tournaments might share a venue with a *FIRST* Robotics Competition event that is occurring at the same time. For this special situation, the tournament director should work with the people running the *FIRST* Robotics Competition event to take steps to avoid wireless interference. We strongly suggest that events held in conjunction with *FIRST* Robotic Competition events have an experienced technical director assigned for *FIRST* Tech Challenge.

Most of the Android devices that are used to control *FIRST* Tech Challenge robots can operate in the 2.4GHz and/or 5GHz portion of the radio spectrum.¹ *FIRST* Tech Challenge and *FIRST* Robotics Competition organizers should coordinate their Wi-Fi usage to avoid conflicts:

- Organizers should agree on which non-overlapping 2.4GHz band channels and/or 20MHz channels in the 5GHz band are reserved exclusively for *FIRST* Tech Challenge use. *FIRST* Robotics Competition systems should avoid operating on these channels.
 - When using channels within the 2.4GHz band, only the non-overlapping channels (1,6,11) should be used. It is recommended that each non-overlapping 2.4GHz channel support no more than sixteen (16) *FIRST* Tech Challenge teams OR the scoring system (but never both). Note

¹ The original approved phones only had 2.4 GHz radios. More recently approved phones have 2.4 and 5 GHz radios.

that performance will be degraded if overlapping channels are used for other purposes in the venue and may decrease the number of teams supported by a channel.

- A minimum of one (1) non-overlapping channel within the 2.4GHz band **MUST** be reserved for *FIRST* Tech Challenge use. Not all officially supported Android devices are dual-band (i.e. able to access both 2.4GHz and 5GHz bands) and may require the use of a 2.4GHz non-overlapping channel at some point during the event.
- When using channels within the 5GHz band, only the supported 20MHz channels (typically 36, 40, 44, 48, 149, 153, 157, 161, and 165) should be used. It is recommended that each channel support no more than thirty-two (32) *FIRST* Tech Challenge teams OR the scoring system (but never both). It is important to note that bonded channels in use by the venue or by other devices that include the selected 20MHz channel will degrade the performance of the channel and may decrease the number of teams supported by a channel.
- Organizers should agree on which non-overlapping 2.4GHz band channels and/or 20MHz channels in the 5GHz band are reserved exclusively for *FIRST* Robotics Competition use. *FIRST* Tech Challenge systems should avoid operating on these channels.

Electricity (for traditional and hybrid events)

- Adequate power available for the number of team tables in pit, robot inspection, competition fields, and scorekeeping areas, audiovisual needs, judges' room, event administration room, registration table, and food services. *FIRST* Tech Challenge events need:
 - Pit admin: wall outlet
 - Team pit area: 60-100 amp drop, which feeds
 - One Duplex Outlet for each team pit table
 - One Duplex Outlet for each practice field (if scoring system is set up for practice fields)
 - Please be sure to secure power and other cables with gaffers tape to avoid tripping hazards
- Competition area: 60-100 amp drop and internet drop/access (internet is optional)
- Judges' deliberation room: standard wall outlet and internet drop/access (internet is optional)
- Power for computers and printers in event admin office, or at pit admin
- Power for registration and information area
- For a multi-day event, if power to the pit area is shut off by the venue each night, please notify the teams in advance so they can choose to bring their batteries with them at night to charge.

Lighting (for traditional and hybrid events)

- Consistent lighting for judging areas, pit areas and competition fields.

Judging Areas (for traditional events)

Judging areas should be closed rooms set away from the pit and competition areas for privacy or a quiet area with pipe and drape creating separate room spaces. At least one room is needed for the team judging for every 6-8 teams, and then one room for the judge's deliberation and final decisions. The sample schedule in [Appendix J](#) will require three rooms.

Teams should not expect to run a video or have access to power during their judging session.

- Private judging area for each team of judges, each with:
 - 2 – 3 chairs for judges
 - One 6' table for judges
 - Rooms or cordoned off areas

- Ability to make space as quiet as possible
- Each must fit 2-3 judges, up to 15 students, 2-3 coaches or mentors, and a robot
- Disability access

Judge Room Examples:

- Classrooms
- Pipe and drape-created space
- Meeting rooms
- Offices

Judge Deliberation Room

Private judging deliberation area for the judges, with adequate space for:

- Chairs for all judges
- 1 6' table for every 2 – 3 judges
- Access to a dry erase or chalkboard, or to post-it easel pads – or a projector, projector screen, computer, and printer
- This space should be secluded to allow open discussion of team evaluations and awards
 - If the space has a window, a window covering is necessary
- This can be one of the judging rooms after interviews are completed

Judge Deliberation Room Examples:

- Large classroom
- Conference room

In this area, you will need the following volunteers:

- Judge advisor (oversees this area)
- Judges
- Judge assistant(s)
- Queuers to bring teams to their judging appointments if you have enough volunteers.

Judges will need various supplies, including pens/pencils, paper, and clipboards.

Registration and Information Area

Team registration, volunteer check-in, and the welcome area should be right near the main entrance. You should have at least one table for teams, one for volunteers, and any additional tables for your event's needs – provide adequate space between volunteer and team check in to allow these to happen simultaneously. We recommend having a table with information on the other *FIRST* programs and the *FIRST* Alumni information. On the [FIRST Press Room webpage](#), you can download and print fact sheets, brochures, and more.

In this area, you will need the following volunteers:

- A dedicated volunteer to oversee check-in – this could be your Pit Administrator with an assistant.
- Floaters assigned the day of to run check-in for teams and volunteers.

As soon as they arrive, volunteers will check-in and receive their registration items (name badge, T-shirt, volunteer schedule, thank you letter or note, etc.). Volunteers will need to have signed Consent and Release Forms as well as a Conflict-of-Interest Disclaimer Forms. See [Appendix F](#) for a complete list of forms and where to find them.

Teams will also check-in and receive their registration items (event schedule, competition instructions, program book, etc.). Teams will need to provide an accurate roster, printed by one of the lead coaches or mentors from their Team Registration page in their account. The roster should list all students in attendance for the event. Rosters must be placed in a secure location upon receipt, such as a lockbox.

Event Administration Room

- Space for tables, chairs, computers, and printers
- Telephone access
- Internet access
- Should be a secure area for storage of valuables

Volunteer Room and Food Area

Providing a space for your volunteers to leave their personal belongings, get a drink (water and coffee are a must!) or snack, and take a break is ideal. In addition, teams will need to eat, so having a space to do that and providing food is necessary or build time into the schedule to break so teams can go and acquire food off-site. You may choose to have a separate cafeteria for teams (ideal as it contains the mess). You might also consider having a food vendor near the competition area for the audience. Be sure to check with the venue to ensure food is allowed and if there are any restrictions such as where food is allowed, specific vendors you must use, or products you much use. Both areas will need an increase in garbage and recycling receptacles for the event day.

In this area, you will need the following volunteers:

- Floaters (if you have enough volunteers on the day of the event)

Volunteer and Food Area Recommendations:

- Private, quiet space
- Food service
- Tables and chairs (enough for all volunteers)
- Disability access

Example Spaces:

- A large classroom
- A large conference room
- A school cafeteria

Quiet Room

- Space for tables, chairs
- Resources for quiet activities for students
 - Coloring books and crayons
 - Crossword puzzles
 - Sudoku
 - Jigsaw puzzles

Parking

The competition site should have access to as much free parking as possible and plans should be made for overflow parking (if applicable). Most FIRST teams will arrive at the competition site via team bus, so a separate area will need to be sectioned off for team bus parking. You might also consider designating space

for volunteer parking as well. Some venues will add an extra fee for bus parking, asking questions about that up front will save you from expensive surprises.

Crowd control and traffic flow are important aspects to the smooth running of these events and should be a part of all planning processes. Consider traffic patterns and how that will affect load-in and load-out for teams. The local police/security department should be involved in traffic flow coordination and may choose to assign additional details to ensure road safety. You might also need to designate volunteers to assist in moving traffic during peak event times.

If there is no parking for the venue, be sure to communicate this in the information packet that goes to teams before the event.

On Site Resources

- Is there a house sound system available for your use?
- Communication devices (if the venue is large and requires them)
- Video equipment such as cameras, video mixer, large display screen (optional)
- Office equipment (copier, computers, printer)
- Are there tables and chairs on site for use?
- Pipe and drape
- Access to a volunteer base
- Access to a service-oriented organization that can provide food and beverage service as a fund-raiser for their organization
- Assistance with marketing the event
- Bleachers or other spectator seating
- Electricity – calculate 20 amps per team for pits

Security and Safety Requirements

You will need to have a plan for who will be responsible for handling safety or security concerns, which may be dictated by the venue. *FIRST* requires tournament directors to print and have on hand several reporting forms. See [Appendix F: Printing Checklist](#) for a complete list. We highly recommend that the QR codes for reporting Medical and Non-Medical incidents be displayed prominently at the Pit Administration table, in the Quiet Room, and in the Volunteer Lounge. The QR codes can be found in Appendix XXX

Security

Depending on the size and location of your event, consider having at least one security guard available during the event, including at night after the doors close to teams, and until all event personnel have left for the day. You may need to request late night access from the venue leading up to and after the tournament.

Safety

Depending on the size and location of your event, consider having at least one EMT or nurse on-site and available during the event.

Emergency Plan

FIRST requires that you put together an emergency response plan. Having a plan in place will ensure you are prepared in case of an emergency and can decrease the number of injuries if an emergency arises. Included in your plan should be topics such as:

- A map of all the emergency exits
- Map of fire extinguisher locations in the venue
- Action plan in the case of severe weather
 - Publish this for teams and volunteers

- Evacuation plans

When putting together an emergency response plan, it is important to assign specific tasks to other event volunteers. Make sure each person understands their role in case of an emergency to ensure teams and anyone attending the event are directed properly and safely.

Date Selection

If you are hosting a qualifying or league tournament, your Program Delivery Partner will inform you of the window of time during which your event may occur. If you are hosting a state or regional championship tournament, your Global Field Operations Manager will inform you of the window of time during which your event may occur. Remember that you will need at least the evening before your event to setup, so be sure to book the venue for two days. When selecting your date within that given window, factors to consider are:

Date Selection Considerations:

- What is the date range approved by FIRST for FIRST Tech Challenge Events?
- Are there any FIRST LEGO League or FIRST Robotics Competition events happening in my area?
 - Some teams may participate in multiple programs.
 - Some volunteers participate in multiple programs.
- When are FIRST Tech Challenge events happening in regions around me?
 - Key volunteers from other locations may be willing to help at your event.
 - Many teams will travel to nearby regions for another chance to compete, but will be unable to advance if they belong to another home region.
- Do the teams in my area have educational or religious considerations that might make a Friday or Sunday more appealing?
- Are other large events happening in the community during that time?
- Weather considerations (be prepared with a back-up plan or date in case of inclement weather).

2023 – 2024 FIRST Tech Challenge Season Dates

September 9, 2023 *FIRST* Tech Challenge Kickoff

October 21, 2023 Earliest Meet Date

October 28, 2023 Earliest Qualifying Tournament Date

November 4, 2023 Earliest Regional Championship Tournament Date

- Single Division Championship Maximum Size is 36 teams
- Dual Division Championship Maximum Size is 48 teams
- Approval is required for events that are larger than 48 teams.
- Approval is required for Dual Division Championship Events
 - Approved events for the 2022-2023 season do not need to resubmit their application, but organizers do need to inform us of their intent to hold a dual division event.

March 17, 2024	Last Official <i>FIRST</i> Tech Challenge Regional Championship Date *Teams must register and secure their registration to Championship by March 21,
March 21, 2024	<i>FIRST</i> Championship Payment Deadline Teams who have not registered and are not secured by March 21, 2024 will be dropped.
April 16, 2024	<i>FIRST</i> Championship Event

Approved Event Timeline for the 2023 – 2024 FIRST Tech Challenge Season

We ask that all regions adhere to this calendar. If dates outside of this timeline are needed, advance approval from *FIRST* Tech Challenge is required.

Time of Event

FIRST Tech Challenge tournaments have basic guidelines that must be followed to keep the quality of the events and the experience of the teams consistent in every part of the world. Since *FIRST* Tech Challenge tournaments are primarily one-day events, you will need to consider the size of your event, and how many teams will be competing to create the appropriate timing. Given that the event is only one day, there are guidelines that should be considered when you are planning.

All the event-day schedule items impact the timing of your event. It is important to understand the activities of the event that will take large portions of the competition day schedule. Equally important is understanding which aspects of the event can be run simultaneously. You want to make sure that you plan to have the capacity to run the scheduled matches. Please reference this Sample Event Day document , in the event day section of this document.

Judging and Robot Inspection must be completed prior to the beginning of Qualifying Matches.

Do not run your match list until all teams are present and have passed both the field and robot inspection.

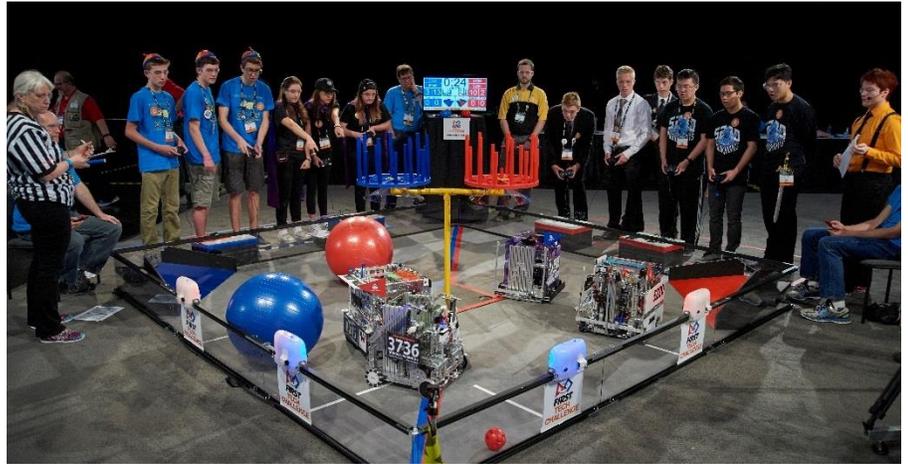
Qualifying and Elimination Matches

At *FIRST* Tech Challenge tournaments, teams must participate in at least five and no more than six qualifying matches. For each qualification match, teams will be randomly paired with another team by the scoring system to form alliances. The teams will be ranked by their performance during the qualifying matches. Before the Elimination Matches begin, the top ranked teams will pick permanent partners for their alliances as described in <C29>a.

Be sure to read the [FIRST Tech Challenge Game Manual Part 1](#) and [Game Manual Part 2](#) for specific, detailed information pertinent to the current game challenge.

Match Time Calculation

Matches are calculated by the length of a match “cycle.” A match cycle is more than just the 2.5 minutes of match time, it also includes the time needed to move the teams to the field, for teams to place their robots on the field, to pair their drivers station with their robots, to announce the teams, to play the match, to remove the robots, to reset the field, and a little spare time built in. A lot happens in a match cycle and running a cycle smoothly will ensure the event stays on schedule. For events with two competition fields, the recommended minimum required cycle time is 6 minutes per match. For events with a single competition field, the minimum recommended cycle time is at least 7 minutes per match.



Match Time Calculator

__ teams x __ matches = __ / __ teams per match = __ matches x __ min. cycles = __ / __ minutes/hour = __ hours

Example:

12 teams x 5 matches = 60/4 teams per match = 15 matches x 10-minute cycles = 150/60 minutes/hour = 2.5 hours.

Match Time Calculator

__ teams x __ matches = __ / __ teams per match = __ matches x __ min. cycles = __ / __ minutes/hour = __ hours

Event Type Variations

Remote events do not require a venue. Teams participate from home or school using the FTC Scoring System to upload their match scores.

Because the rankings for remote events are based on a team’s solo scores, they are fundamentally different from the rankings for traditional events, where both teams in an alliance receive the alliance score, rather than an individual score.

Remote events with judging (qualifying tournaments, league tournaments, and championship tournaments) utilize remote judging, which is a feature built into the Scoring System.

Hybrid events are events where all team match play is done in a traditional format, and all team formal judging interviews are held remotely. There is no option to mix and match in this format. The only allowed variation to this is that a hybrid event with remote interviews can opt to allow in person pit interviews.

Mixing remote, hybrid, or traditional events:

All meets within a league structure must be either remote or traditional. There is no option for some teams to participate remotely, while others participate in person.

Remote meets can advance to a traditional league tournament, as long as the opportunity to participate is equitable for all the teams within that league, and as long as all teams competed remotely in the league.

Merging a remote league with a traditional league for a league tournament is not permitted because of scoring inequities between the remote and traditional meet play.

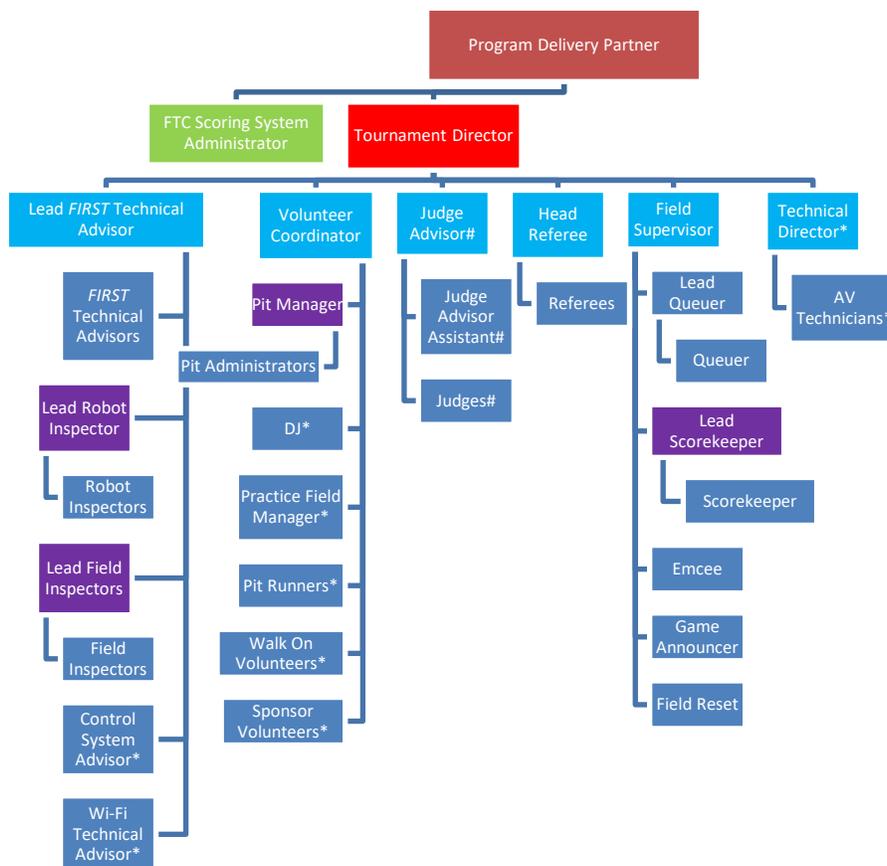
Event organizers may schedule some remote qualifying tournaments, some hybrid qualifying tournaments, and some traditional tournaments within a region.

Judging must follow the same format for all teams participating at an event. All teams must judge in person, or remotely for any one event. Event organizers may set up separate events to accommodate teams who cannot participate in a traditional format.

Volunteers

The Organization Chart listed below should be used as a staffing guideline. Your event may require all, or only some of these roles.

Meet and Tournament Decision Authority Matrix



*indicates roles not required at events with fewer than 24 teams.

#indicates roles not required at meet events.

Learn more about the roles of volunteers on our [Volunteer Resources page](#), “Volunteer Role Description.”

Event Day Volunteers

The following chart lists the kind and quantity of volunteers needed to run a qualifying tournament. Asterisks indicate those positions that require *FIRST* Tech Challenge Training and Certification. The following list is merely a suggested list, and every event will have different needs. Furthermore, some of these positions can be “doubled-up”: Robot and field inspectors can serve as referees and FTAs (*FIRST* Technical Advisor); DJs can be game announcers and emcees. Ideal student/walk-on volunteer positions are indicated with an @. League meets do not use many of these roles, including judges, field reset, queuers, and crowd control.

Volunteer Role	Must Have?	12 Team Event Qty Needed	24 Team Event Qty Needed
Control System Advisor	N	1	2
Crowd Control Volunteers@	N	2	4
Disc Jockey	N	Computer or phone	1
Emcee	Y	1	1
Field Manager	N	1	1
Field Resetters@	Y	2	4
<i>FIRST</i> Tech Advisor Assistant*	N	1	2
<i>FIRST</i> Technical Advisor*	Y	1	2
Floaters@	Y	2-4	4-6
Game Announcer	Y	0	1
Robot Inspectors* (Use Referees)	Y	2	4
Head Referee*	Y	1	1
Judge Advisor*	Y	1	1
Judge Match Observer* (Use Judges)	N	1	2
Judges*	Y	4	16
Lead Robot Inspector*	Y	1	1
Lead Queuer	N	1	1
Lead Scorekeeper*	Y	1	1
Lead Field Inspector* (Use FTA Assistant(s))	Y	1	1
Load-In/Setup Crew@	Y	10	10
Load-Out/Tear Down Crew@	Y	10	10
Photographer/Videographer@	N	1	1
Pit Administrator	N	1	1
Pit Manager	Y	1	1
Public Relations Manager	N	0	1
Queuers/Pit Runners@	Y	2-4	2-4
Referees* (Robot Inspectors)	Y	4	8
Scorekeepers*	N	1	1
Scoring System Administrator	Y	1	1
Field Inspectors*	Y	2	4
Team Registration@	Y	1	1

Technical Help Desk Volunteer	N	1	1
Wi-Fi Technology Advisor	N	1	1

Volunteer Coordinator

A dedicated volunteer coordinator is a must-have for any *FIRST* event. Our suggestion is that you fill this position first (as soon as possible, in fact!) and then they will help recruit your other key volunteers. While you may plan to wear this hat as well as tournament director, it is important that you DO NOT; the reality is that both roles are too much for one person to handle well. A volunteer coordinator manual and other volunteer training manuals can be found on the [FIRST Tech Challenge Volunteer Resources webpage](#) and through the Blue Volt system. Once your volunteer coordinator is assigned, they will receive an email with access information.

Volunteer Coordinator Traits

Most importantly, as representatives of *FIRST*, volunteer coordinators are vital and visible leaders in the community. They must understand and exemplify *Gracious Professionalism*, through *FIRST*'s core values. The volunteer coordinator can network with like-minded professionals. Responsibilities of the role include the following:

- Participation in tournament planning committee meetings.
- Plan and implement activities for volunteer recruitment, selection, registration, support, and recognition.
- Ensure that key volunteers are recruited, registered, screened, and certified.
- Ensure that events are staffed with enough volunteers.
- Supervise and assist event volunteers on site.

Volunteer Coordinator Time Commitment

Time commitments can vary depending on experience, working arrangements with the Program Delivery Partner, and the size of the event. Below is an approximated amount of time you may spend on staffing for an event:

- 3 to 6 months before the event – about 6 hours a week.
- 2 to 3 months before the event – about 10 hours a week.
- 1 month before and up to the event – Up to 20 hours a week.

Lead Scorekeeper

While the Program Delivery Partner or FTC Scoring event administrator is responsible for setting up the event in FTC Scoring before the event, each event **must** have a lead scorekeeper present. The lead scorekeeper is responsible for event day setup in FTC Live local system, including editing the team list as needed after inspection. A detailed setup guide can be found here: [Scorekeeper Guide](#).

Teams

Communication

It is important to communicate regularly with your teams from the moment they register for your event until after your event. Decide who will be the main point of contact with teams after they have been assigned: The tournament director or another team committee member. This person should be in touch with teams to ensure they have submitted their team roster from their [Team Registration Dashboard](#), to share key facts about the event including schedule and awards (see [Promote and Compass Award](#) below), and to confirm their participation as the event day nears.

Be sure to communicate everything teams, volunteers, VIPs, and spectators need to know. Consider the following items for your event website or your confirmation emails:

- Event date & time
- Training dates and times
- Location address
- Map
- Load in/Load out information.
- Schedule
- Team registration information
- Lunch options
- Consent and Release Forms and Team Rosters, see [Express Enrollment instructions](#).
- List of what to bring.
- Nearby restaurants
- Local hotels
- Event contact information
- A contact name and email address for accommodation requests

Pre-Event Communication with Teams

- Advertisement of the event and open registration
- Registration materials
- Team Safety Checklist
- Venue Map with exits clearly marked.
- Registration complete
- Event schedule and instructions
- Special awards instructions (if applicable; see below)

Optional Awards

FIRST Tech Challenge offers several optional awards, including the Judges' Choice Award, Promote Award, and Compass Award. Review the Awards listed in [Game Manual Part 1](#), and discuss the region's awards with your Program Delivery Partner to determine what you will distribute. Communicate clearly with the teams the awards which will be given at your event.

Event Day Communication

- Team check-in and load-in instructions
- Venue-specific accessibility information
- Schedule of the day
- Required documents.

Team and Volunteer Thank Yous

Make sure to send a thank you note to your teams. This could include the event results, and information about upcoming events.

Volunteer coordinators typically send thank-you notes to volunteers. It is a great way to appreciate their time and efforts and share upcoming volunteer opportunities.

Accommodating Students and Volunteers

FIRST is committed to Equity, Diversity, and Inclusion and as such, FIRST makes reasonable accommodations for people with disabilities that request an accommodation. We highly recommend that the

name and email address of a person to contact about event accommodations be shared with both teams and volunteers. The messaging could be as simple as:

“We strive to host inclusive, accessible events that enable all individuals to engage fully. To request an accommodation, or for inquiries about accessibility, please contact {contact name}, {contact email}.”

Reasonable accommodations are adjustments or modifications to remove barriers for participants. Remember that not all disabilities are visible.

If you receive a request for an accommodation that you need help with, please contact accommodations@firstinspires.org.

Advancement Criteria

The number of teams each qualifying, or league championship tournament will advance is dependent upon how many qualifying tournaments or league championships feed into the championship tournament, and how many teams the championship tournament can accommodate. Teams must advance in the order outlined in section 6.0 of the *FIRST* Tech Challenge [Game Manual Part 1](#): Advancement Criteria.

Program Delivery Partners are responsible for communicating to Qualifier and League Tournament hosts the number of teams advancing from their events. The number of teams that a state or regional championship tournament will advance to the *FIRST* Championship is determined by *FIRST*. *FIRST* Tech Challenge Global Field Managers will notify the Program Delivery Partner of their advancement numbers. The scoring system helps calculate advancement at your event.

Please note that tournament directors, judge advisors or Program Delivery Partners may not alter the official advancement criteria. The judging process must be followed exactly as described in the [Judge and Judge Advisor Manual](#). A first and second place Inspire Award winner must be named for events with fewer than 21 teams. Events with 22 or more teams must name a first, second, and third place Inspire Award Winner. Judging decisions may not impact the advancement of teams who have earned their way through competition play.

Please note that events that do not follow the prescribed game, judging, and advancement rules may not be considered official events, and may not advance teams to higher level events.

Registration & Fees

Team Registration

Once your event date and time are set, the Program Delivery Partner will inform *FIRST* Tech Challenge of the official event dates and details. Registration should open 2-3 months prior to the event and close two weeks before the event. Registration applications should solicit detailed information from teams, including the cell phone number for one adult that will be travelling with the team.

The Program Delivery Partner is responsible for making sure that only those teams registered with *FIRST* Tech Challenge compete in the official events within their region. Registration priority is often given in the following order (teams must register before the registration deadline):

- In-state/region teams who have not competed or registered in another qualifying tournament.
- In-state/region teams.
- Out of state/region teams who have not competed or registered in another qualifying tournament.
- Out of state/region teams.
- Remember that out of state/region teams are not considered for Inspire or eligible for advancement.

If an event organizer allows teams from another region to participate in their event, those teams are not allowed to advance from the event. This should be a consideration when deciding to allow or not allow teams from outside of a region to participate.

Team Registration Fees

Program Delivery Partners determine the event registration fees for their regions. Some regions collect team registration fees for events at the region or state level and distribute goods, services, or a set amount of financial support to each event. Other regions require league championship and qualifying tournaments to raise all the funds necessary to run the events. Your region's requirements will determine your budget and the amount of fundraising you will need to do.

Team Registration System (North America Only)

In the Team Registration System, the Main Contact (Lead Coach 1) for the team can invite parents of student team members to join the team. This email invite will prompt the parent to create an account via [Youth Team Member Registration](#).

Event Day

The following is a typical event day schedule for a 12-team event. Larger event schedules will look a little different, with additional time added for judging and inspection, and additional time added for matches.

Sample Event Day Schedule

Time	Item	Notes
6:00am	Volunteer Check-In begins	Be prepared to respond to early arrival teams
7:00am	Team Check-In begins	
7:00am	Team Load-In	
7:00am	Robot Inspection	Budget time for all teams, including the last teams through to pass the Inspection. Time for practice matches, on a first come-first served basis (this is optional, and the event organizer may choose to allow teams a practice match at the same time they are completing the Field Inspection).
7:30am	Judging	Schedule each team 20 minutes to complete Judging Interviews. <ul style="list-style-type: none"> Judging sessions MUST be completed prior to scheduled matches. Judging sessions MUST be at least 10 minutes long
10:00am	Drivers Meeting	Have teams competing in the first 2-3 matches bring robots to the meeting place on the field/queue up immediately after the meeting: approximately 30 minutes long
10:30am	Opening Ceremony	Approximately 30 minutes long
11:00am	Qualifying Matches	<ul style="list-style-type: none"> Your schedule should account for 7 minutes minimum each match, and longer if your event is earlier in the season, with one competition field. Time will vary based on the number of teams competing at the event. Calculate match time by using the Match Time Calculator.
11:30am	Non-Essential Volunteers	Send to lunch to facilitate smooth transitions
12:00-1:00pm	Lunch Break	A minimum of 30 minutes required
12:45pm	Queue Teams	To field for 1pm matches
1:00pm	Qualifying Matches	See notes above

2:00pm	Alliance Selection	Approximately 15-30 minutes long. An event with 20 teams or less will have 2 team alliances in the semi-finals and final rounds. See <C29> for more details
2:30pm	Semifinal Round I	approximately 30 minutes long
3:00pm	Semifinal Round II	approximately 30 minutes long
3:30pm	Final Rounds	approximately 30 minutes long
4:00pm	Closing Ceremony	approximately 30 minutes to one hour long
4:30pm	Team Load-Out	Use a separate, rested crew and this process will go faster.

Logistics

The following list reviews the flow of the day and details important notes and reminders:

- Volunteers should arrive an hour before you plan to allow teams to check in.
 - Assign volunteers and make certain they understand their roles.
- Teams arrive to register, set up tables in the pit, and get some practice rounds in before their qualifying matches begin.
- Teams should receive the judging schedule in advance of competition or may be assigned a judging and inspection time when they arrive on-site.
- Judging sessions and robot inspections must occur before qualification matches begin. Create schedules and assign teams to specific times for both judging and inspection to ensure that all teams do not show up to get these done at the last minute, delaying the start of opening ceremonies and the qualifying matches. When scheduling judging, remember that judges will want time to interview teams and then make their notes. 30 minutes between appointments is ideal. Teams must have at least a 10-minute formal judging interview. When scheduling inspection, make sure to reserve a large (30 minutes at least) block of time at the end of the inspection timeline just for repeat inspections. Sample inspection schedules are available in [Appendix J](#).
- Hold a driver meeting in the morning, after judges' interviews are completed, but before opening ceremonies
- Run your match schedule in the morning, after your teams have checked in and when you are certain they will pass software and hardware inspection. *FIRST* Tech Challenge competitions do not allow for 'substitute' teams. A match schedule that has been generated the night before the event may include matches for a team that does not show up for your event, leaving their scheduled alliance partners at a disadvantage.
 - Teams compete in not fewer than five and not more than six qualifying matches.
 - The scoring system allows match lists to be run without time. We recommend that you run your match list without times and queue your teams according to match number.
- Plan enough room in your schedule to allow for small delays.
- Elimination round formats are mandatory and must follow the guidelines provided in section 4.10 of the [Game Manual Part 1](#).
- Official *FIRST* Tech Challenge awards are mandatory, and the judging guidelines provided in [the Judge Advisor manual](#) must be followed exactly as written.
- Announce early in the day and again at the beginning of alliance selections the criteria for teams to advance to the next level of events.
- Check in with your key volunteers often.
- Make sure that your volunteers have water.
- Make sure that your volunteers take breaks and eat.
- Make sure your key volunteers have access to the event support numbers at *FIRST*, in case of questions or concerns. These are located in Appendix A.

Event Setup

One to two weeks prior to your event, you will want to ensure that you have collected all the necessary items and print materials. Much of the event day setup should happen the night before your event if you are starting early in the morning. Key volunteers are responsible for setting up the playing field, playing field electronics, etc. Additional volunteers will help set up the pits, check-in areas, food areas, tape down cords, hang signs, etc. Please reference [Appendix G: Setup Checklist](#).

Static Mitigation

While much of static mitigation depends on the [robot design, build, and wiring](#), location plays a crucial factor, as well. In climates with low humidity (less than 45%), prepping the field to reduce static is recommended. The Program Delivery Partner will determine what, if any, steps their region is taking and qualifying and league championship tournament organizers will be expected to follow those guidelines for consistency among the events in your region. Teams must be able to anticipate and expect to encounter the same field setup and preparation at every event they attend in a region. For more information about [electrostatic discharge \(ESD\)](#), refer to [Appendix L: Recommendations for Static Mitigation for events](#).

Printing Needs

In addition to field elements and electronics, tables and chairs, there are several reference materials you will need. Please reference [Appendix F: Printing Checklist](#)

Signs

Directing volunteers, teams, and guests on the day of the event is essential to ensuring you stick to the event day schedule. Your venue setup will determine your signage needs. [Appendix K: Sign Templates](#) can be modified with the details of your event, printed, and posted throughout the venue. You will want to consider signs for the following:

- Parking
- Load-In
- Pits
- Pit table team numbers
- Volunteer Registration
- Team Registration
- Pit Administration
- Robot Inspection
- Field Inspection
- Judging Rooms
- Bathrooms
- Cafeteria/Food areas
- Volunteer Lounge/Food area
- Technical Help Desk
- Queueing Path
- Robot Path – NO SPECTATORS
- Competition Area
- Safety Glasses REQUIRED
- Incident Reporting Signage (see Appendix Q)

On Site Registration

Volunteers will need to check-in early. All North American volunteers must be pre-screened through Volunteer Registration. If you have a walk-on volunteer, follow the instructions in the [FIRST Walk On Event Volunteer Policy and Application](#).

Having coffee, water, and a light breakfast or snacks is critical to keep volunteers fueled.

Upon check-in, **Volunteers** receive the following:

- Volunteer T-shirt (if available)
- Meal Voucher (if applicable)
- Name tag
- Registration packet

Upon check-in, teams need to provide copies of their team contact information and Team Roster, payment (if applicable), emergency contact information, proof of signed Consent & Release forms for each team member, before receiving the following:

- Registration packet ([See Appendix H: Event Day Registration Packets](#))
- Event T-shirt (if applicable)

Team contact information should be placed in a box with a lock, as this is considered Personally Identifiable Information (PII), and must be protected.

PR/Media/VIPs

If you have invited special guests, the media, or have a professional photographer/videographer on-site for your event, prepare a plan ahead of time for who will be meeting them, providing a tour or instructions, etc. You want to look polished and professional for everyone, but especially for your invited guests, and being prepared is the best way to do so.

On Site Safety

Before the Event

Email team coaches with a map of the venue with exits, pit area, competition area, and quiet room clearly marked, along with the Team Safety document located in [Appendix P](#), and the Preparing to Safely Attend a FIRST event document, located in [Appendix R](#). Please encourage your participants to create a safety plan, so all team members know what to do in the unlikely event of an emergency.

Safe Set-Up

Prior to the event, walk around and ensure that all areas are safe and accommodating for all volunteers, teams, and guests. Anything on the floor should be completely taped down or moved out of queueing paths and aisles. All exits and fire doors must be clear. The aisles must be at least 8 feet or 2.43 meters wide.

Safe Audio Levels

Please review the audio level guidelines, located in [appendix N](#).

Guidelines for Lost Children

FIRST Tech Challenge events can be very hectic, as there are many distinct parts of the event happening all at once (i.e., judging interviews, robot inspections). It can be easy for a child to get lost in the shuffle of a busy event. It is important to have an action plan in the instance of a lost child. There are resources available to help guide you in creating an action plan:

- <http://www.missingkids.com/ourwork/publications>
- Code Adam Guidelines: codeadam.missingkids.org

Ceremonies and Awards

League tournaments, qualifying tournaments and state and regional championship tournaments are required to provide recognition for the required *FIRST* Tech Challenge awards. There are a set of awards which must be given at each tournament. Trophies may be standardized in your region as well. Program Delivery Partners will determine the style of trophy for league championship and qualifying tournaments within their region. State and regional championship tournaments must order the official, approved trophies and medals from Crown Trophy. Please refer to SharePoint for instructions and ordering forms.



Awards Ceremony Script

It is important that *FIRST* Tech Challenge Awards Ceremonies are similar in style and include all the same information. Use the award ceremony script found in the *FIRST* Tech Challenge [Tournament Director](#) section of the *FIRST* website.

After the Event

In addition to congratulating yourself and your tournament planning committee on a job well done, here is a list of tasks that will need completing post event:

- Generate lessons learned doc (see below) before, during, and after the event.
- Publish event results through FTC Live “Submit Results to FIRST” button.
- Return rented or borrowed items.
- Send thank you letters to VIPs, sponsors, volunteers, venue, hosts.
- Send thank you emails to coaches and teams.
- Return completed forms to *FIRST*, including: Conflict of Interest forms; Medical Incident Reports, and non-Medical Incident Reports.
- Finalize the budget results.
- Request feedback (see surveys below)
- Schedule meeting(s) to convene planning for next year’s event.
- You are encouraged to share survey results with ftcteams@firstinspires.org. We want to know about your event!

Lessons Learned

It is never too soon to be collecting information to help you improve the organization and execution of your event. Especially on event day, take notes about what worked, what issues arose, and ideas for improvement. Keep all your notes in one area, like a Word document, and add throughout event planning and implementation. Add survey feedback and takeaways from formal and informal conversations with folks to the list, especially your key volunteers, and then review it prior to beginning work and during the following year’s event planning process.

Surveys

Within two to four weeks post-event, you should request feedback from your tournament planning committee and subcommittees, as well as teams. What are some lessons learned from this event and how

can you improve in the future? This can be done formally, through a survey or evaluation, or informally in conversations. Take notes and review them when you begin planning next year's event.

Using an online survey tool (SurveyMonkey.com is free and easy to use) to collect formal feedback from volunteers and teams will help you to improve future events. It is also a great way to collect some simple information to track year to year which might be needed by your sponsors, etc. Alternately, you could link your survey to a QR code, and collect feedback from the event while the feedback is fresh in the minds of the teams and volunteers.

Feedback

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

Appendix A – Resources

Game Forum Q&A

<https://ftc-qa.firstinspires.org/>

Anyone may view questions and answers within the FIRST® Tech Challenge game Q&A forum without a password. To submit a new question, you must have a unique Q&A system username and password for your team.

Volunteer Forum

Volunteers can request access to role specific volunteer forums by emailing FTCTrainingSupport@firstinspires.org. You will receive access to the forum thread specific to your role.

FIRST Tech Challenge Game Manuals

Part 1 and 2 - <https://www.firstinspires.org/resource-library/ftc/game-and-season-info>

FIRST Headquarters Pre-Event Support

Phone: 603-666-3906

Mon – Fri

8:30am – 5:00pm, Eastern Time Zone (UTC -5)

Email: Firsttechchallenge@firstinspires.org

FIRST Tech Challenge Event On-Call Support

The on-call event support number is available for event personnel only. Please **do not** call these numbers if you are a team looking for a ruling, a decision, or assistance. We trust that you will not misuse this resource.

Day of event robot control system and scoring system support: **603-206-2450**

All other day of event support: **603-206-2412**

FIRST Websites

[FIRST Tech Challenge Page](#) – For everything FIRST Tech Challenge.

[FIRST Tech Challenge Volunteer Resources](#) – To access public volunteer manuals.

[FIRST Tech Challenge Event Web](#) – Find FIRST Tech Challenge events in your area.

FIRST Tech Challenge Social Media

[FIRST Tech Challenge Facebook page](#) - If you are on Facebook, follow the FIRST Tech Challenge page for news updates.

[FIRST Tech Challenge YouTube Channel](#) – Contains training videos, game animations, news clips, and more.

[FIRST Tech Challenge Blog](#) – Weekly articles for the FIRST Tech Challenge community.

[FIRST Tech Challenge Team Email Blasts](#) – contain the most recent FIRST Tech Challenge news for teams.

Feedback

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

Appendix B: Letter from *FIRST* Tech Challenge Engineer to Venue IT Staff

How to use this Document

You will need to communicate with the venue early on about the field electronics Wi-Fi needs and what that means for the venue's Wi-Fi environment. Please provide the venue with the following letter from *FIRST* Tech Challenge project manager, Elizabeth Gilibert to the venue regarding the Wi-Fi needs of the event and what is needed from the venue.

Letter

To Whom It May Concern:

The *FIRST* Tech Challenge is a robotics competition where students build robots that “play a game” on a 12’x12’ field. The students control their robots remotely using wireless technology. At the competition, each robot will establish its own private Wi-Fi control network (2.4GHz or 5GHz band).

Your facility will be hosting a Tournament on <SPECIFY DATES>.

The wireless control systems that will be used during the Tournament can be affected by wireless interference from other devices that are operating on or near the same frequency. To avoid interference and to ensure the safe and responsive control of the robots, the Tournament Director is requesting that any wireless networks in the vicinity of the competition and/or practice fields be temporarily disabled.

If it is not possible to disable the wireless networks, the Tournament Director is requesting that these networks be moved to a single Wi-Fi channel. Moving the networks to a single channel will make it easier for teams to avoid interference by selecting an operating channel that does not overlap with the venue's preferred Wi-Fi channel.

Temporarily disabling or moving conflicting wireless networks will help minimize the amount of wireless interference at the event. This is important to help ensure safe control of robots.

Also, if there are any Wi-Fi suppressors present in the venue, the Tournament Director is requesting that these Wi-Fi suppressors be disabled for the duration of the Tournament. Note that the FCC has ruled that such Wi-Fi suppression/blocking devices are prohibited under federal law (see <https://www.fcc.gov/document/warning-wi-fi-blocking-prohibited>).

Please do not hesitate to contact me if you have any questions regarding these requests. Thank you for your consideration regarding this upcoming *FIRST* Tech Challenge event.

Sincerely,

Elizabeth Gilibert
FIRST Tech Challenge Project Manager
ftctech@firstinspires.org

Appendix C: Alumni Resources



**FIRST® ALUMNI
CORE MESSAGES**
www.firstinspires.org/alumni

FIRST ALUMNI CORE MESSAGES

FIRST® prepares students for life beyond high school.

- By participating in *FIRST* programs, *FIRST* Alumni gain skills and attitudes needed in today's workforce, including problem-solving skills, teamwork, innovative thinking, creative thinking, perseverance, and leadership.
- *FIRST* Alumni stand out to potential employers. They are innovative, leaders, and ready to hire. They have gone on to specialize in engineering, science, education, media, mathematics, theater, film, marketing, business, finance, health, art, communications, medicine, ecommerce, politics, technology, and much more.
- *FIRST* Alumni have access to networking opportunities, internships and jobs, community, inspiration, and more through *FIRST*.
- *FIRST* helps alumni of *FIRST* programs take the next step, reach for the next breakthrough, and take their dream and see it through. No matter what their dream, *FIRST* helps them get there.

FIRST Alumni belong to a global, lifelong community.

- *FIRST* Alumni are part of a network of innovators, changing the world one dream at a time.
- Alumni of *FIRST* programs are critical to advancing our mission across the globe.
- *FIRST* Alumni are encouraged to give back by volunteering, mentoring, donating, recruiting, and spreading the mission of *FIRST*.
- Nearly half of *FIRST* Alumni are still involved in *FIRST* as coaches, mentors, volunteers, and donors.

FIRST is not something you do; it is something you are.

- *FIRST* Alumni are confident, inspiring, driven, and unstoppable. They are *FIRST*.

FIRST SCHOLARSHIP PROGRAM CORE MESSAGES

- High school student participants of *FIRST*® Robotics Competition and/or *FIRST*® Tech Challenge programs are eligible to apply for more than \$80 million in scholarship opportunities through the *FIRST* Scholarship Program.
 - *FIRST* Scholarships are not funded or administered by *FIRST*.
- *FIRST* Scholarship Providers agree *FIRST* Alumni have the necessary skills to succeed in college.

- Colleges, universities, corporations, and associations support the mission of *FIRST* by making *FIRST* Scholarships available to *FIRST* participants and alumni who are ready to take the next step toward becoming leaders in their fields.
- Colleges, universities, and employers recognize the value of the *FIRST* experience. They recognize that *FIRST* team members are passionate about science, technology, engineering, and math (STEM), and that *FIRST* students develop critical 21st century life skills including problem solving, time management, teamwork, and the appreciation of diverse, inclusive, and equitable communities.
- Receiving a *FIRST* Scholarship can have a significant impact on deciding which college to attend or whether or not it is affordable.

FREQUENTLY ASKED QUESTIONS

Who are *FIRST* Alumni?

- *FIRST* Alumni are graduates of high school-level *FIRST* programs (i.e., *FIRST* Tech Challenge and/or *FIRST* Robotics Competition).
- *FIRST* participants automatically become *FIRST* Alumni after graduating high school.
- *FIRST* Alumni are 2.6 times more likely to enroll in an engineering course in the first year of college.
- Over 75% of *FIRST* Alumni are in a STEM field as a student or professional.
- Nearly half of *FIRST* Alumni are still involved in *FIRST* as coaches, mentors, volunteers, and donors.
- More information about *FIRST* Alumni, along with internship and networking opportunities, can be found at www.firstinspires.org/alumni.

Who is eligible for a *FIRST* Scholarship?

- High school students who have participated or are participating on high-school-level *FIRST* Robotics Competition and/or *FIRST* Tech Challenge teams can apply for *FIRST* Scholarships.
- Most *FIRST* Scholarship Providers request applications during a student's **senior** year, but there are a few scholarships available to juniors or college students.
- Each scholarship may also have other eligibility requirements as set by the provider. Eligibility requirements are available at www.firstinspires.org/scholarships.

How does the *FIRST* Scholarship Program work?

- *FIRST* Scholarships are offered and administered by the scholarship providers. Scholarship providers are primarily four-year colleges and universities, but also include community colleges, technical schools, corporations, and associations.
- Most *FIRST* scholarships are merit-based scholarships and may be renewable each year by maintaining an acceptable academic average. Each scholarship is unique and has its own award amount, eligibility requirements, application requirements, and application deadline.
- Most applications are due between December and April of the last year of high school/12th grade, but applicants should pay close attention to individual deadlines. Each *FIRST* Scholarship has its own application process and may require an essay and/or a recommendation letter from a mentor or coach.
- Most opportunities are made available each year, so future applicants should become familiar with the opportunities in the program in preparation to apply during their eligible year.
- Opportunities, applications, and details about available scholarships can be found at www.firstinspires.org/scholarships.



FIRST® ALUMNI AND FIRST SCHOLARSHIPS AT EVENTS

Alumni presence will vary from one event to another, based on available space, contract restrictions, and the number of scholarship providers. **This first section describes the basic presence that is requested at a minimum at all FIRST Tech Challenge events.** The second section describes guidelines for hosting a “Scholarship Row” within events should you choose.

ALL FIRST Events will:

- Provide *FIRST* Alumni literature to students, parents, and other visitors at a designated *FIRST* Scholarship table near the main entrance door.
 - Materials provided to all events at no cost to event organizers.
- Information about *FIRST* Alumni will be included in the event script, and the *FIRST* Alumni video should be shown.

Suggested Materials order at <http://d3cms.com/firstmarketing/Login.aspx>:

- League Meets, Tournaments and Qualifiers
 - 50 Alumni Brochures
 - 50 Stickers
 - Alumni Banner
 - Alumni Tablecloth
- Region/State Championship
 - 100 Alumni Brochures
 - 100 Stickers
 - Alumni Banner
 - Alumni Tablecloth

“SCHOLARSHIP ROW” AT EVENTS

To encourage awareness of the *FIRST* Scholarship Program and the opportunities in higher education, as well as to steward current Scholarship Providers, Tournament Directors are invited to offer *FIRST* scholarship providers a display table to present materials at their event.

All Tournament Directors are invited to host a Scholarship Row within their event; however, guidelines and restrictions are noted below.

- Events interested in hosting a Scholarship Row event at their event should inform *FIRST* Alumni Relations as soon as possible (scholarships@firstinspires.org).
 - Knowing which regions are planning to hold a Scholarship Row will allow us to provide additional resources and support.
- Tournament Directors, or designee, are responsible for inviting local scholarship providers to participate, coordinating and monitoring scholarship tables at their event, and working closely with the event management team.
 - *FIRST* Alumni Relations will provide Scholarship Provider contact lists to Partners in late Fall/early Winter.
 - Tournament Directors by requesting this list at any time by emailing scholarships@firstinspires.org
- What the event can accommodate will be determined by contracts in place and space considerations. *If an event does not have the space for scholarship tables, or the contract with the venue does not allow this type of promotion, that event will not have a Scholarship Row.* Bronze level *FIRST* Scholarship Providers (total yearly value of \$20,000+) or higher-level providers are ‘entitled’ to invitations to available Scholarship Rows, however the decision on who to invite/not is at the sole discretion of the Partner or their agent.
 - Find all *FIRST* Scholarship Provider benefits at <http://www.firstinspires.org/resource-library/scholarship-providers>
 - Should you encounter any issues, please contact Michelle Long at mlong@firstinspires.org

***FIRST* Championship Innovation Faire Scholarship Row**

- Championship Scholarship Row recognition are privileges reserved for schools/organizations that are silver level or higher providers, and are available in limited quantities only,
- Invitations to display at the Championship are managed by *FIRST* Headquarters and should not be part of any local conversations.
- Should you have any questions about the above guidelines, please reach Michelle Long at mlong@firstinspires.org

Policy regarding *FIRST* Scholarship Rows

FIRST Scholarship Rows are optional ‘college fair’ events held within official *FIRST* events to showcase individual *FIRST* Scholarship Providers and the [FIRST Scholarship Opportunities](#) they make available to *FIRST* Participants.

FIRST Scholarship Row within official *FIRST* events should be limited to current and official *FIRST* Scholarship Providers¹. *FIRST* Scholarship Providers at the Platinum, Gold, Silver, and Bronze level should be invited to attend *FIRST* Scholarship Rows as space allows. Invitation of the [Brass level](#) *FIRST* Scholarship Providers is at the discretion of the Regional Director/ District Contact.

Gracious Professionalism® - “Doing your best work while treating others with respect and kindness - It’s what makes *FIRST*, first.”

Non-*FIRST* Scholarship Providers may be included in *FIRST* Scholarship Rows only under the following conditions:

- Are a true prospective *FIRST* Scholarship Provider
- Have not attended another *FIRST* Scholarship Row as a non-*FIRST* Scholarship Provider within the last 5 years.
- Contact information/ introductions are made to the *FIRST* Headquarters Alumni Relations staff prior to or following the event.
- Attendance at the event should be a shorter exhibit time than official *FIRST*.

Scholarship providers

- i.e., Scholarship Row is a two-day event; potential Providers should only attend one day.
- Non-*FIRST* Scholarship Providers should be labeled as such within Scholarship Row

¹ Current and official *FIRST* Scholarship Providers are defined as those posted to www.firstinspires.org/scholarships

Appendix D: Area and Supply Needs Chart

This list is for a 12-team (minimum) qualifier. Numbers should be adjusted as appropriate for larger events.

Location	Item	Qty	Notes
Registration Area	Table(s) for Volunteer Check-In* Table(s) for Team Check-In* Table(s) for Sponsor recognition Table for <i>FIRST</i> information* Table for <i>FIRST</i> Alumni info* (2) chairs per table Directional signs	1-2 1-2 1-2 1 1 10+ varies	Optional Required Required (can be combined with <i>FIRST</i> Information table) Recommended, but optional.
Competition Area	Playing Field Alliance Flags (1) Table per Field for Queuing Table for Scoring System electronics Scoring System electronics PA/Audio system w/ microphone* Table for Awards* Award presentation area* Projection screen* Projectors* Stanchions* (2) chairs per table Directional signs	1-2 10 1-2 1-2 1-2 1 1 1 1-2 1-2 Varies 8+ varies	Per Field
Pit Area	(1) Table per Team (with power) Table(s) for Pit Admin Computer with Printer (2) chairs per table @ Pit Admin PA/Audio System with microphone* Projection screen* Projector* Extra trash/recycling containers Directional signs	12+ 1-2 1 2-4 1 1 1 varies varies	Chairs are optional. Optional Optional Optional
Inspection Area	(1) Table per (2) Inspection stations Sizing Boxes Practice Field Table for practice Field electronics Directional Signs	2-4 2-3 1 1	Robot and Field (Robot Inspection can be done by roving inspectors) Robot Optional – can use comp. Field.
Judging Area**	(1) Table per Judging area/room (2) chairs per table (1) Table for Judging supplies Dry Erase board/chalkboard Directional Signs	3-4 6-8 1 1 varies	Chairs for Teams are optional
Volunteer Area**	Tables Chairs Extra trash/recycling containers Directional Signs	varies varies varies varies	Adequate number to accommodate many Volunteers at once

Quiet Room	Tables Chairs Coloring Books Crayons Pens or Pencils Crossword Puzzles Sudoku Jigsaw Puzzles Directional Signs	varies	Optional, but recommended
Food Area**	Tables Chairs Extra trash/recycling containers Directional signs	varies varies varies varies	Adequate number to accommodate the expected number of users at any one time
Parking	Directional Signs	varies	To direct auto, bus, and pedestrian traffic

*Not Required for League Meet events!

**Not used for League Meet events!

Appendix E: Hardware Requirements

For Competition Field

- (1) Laptop computer and mouse for Field Display
 - Using a mouse is highly suggested over using a track pad.
- (4) Logitech F310 Game Controllers
 - The Logitech F310 replaced the Logitech Dual Action controllers to function as spares.
- (1) Monitor and compatible video cable
 - For Field display
- (1) Set of computer speakers (optional)
 - For Field Display start/stop sounds.
- Extension cables as necessary per Venue to get power to each Field.
- (1) table or cart to hold the Field Display computer/monitor
- *The latest Google Chrome (chromium) browser must be loaded on all laptops.*

Scoring System Equipment

- (1) Laptop computer and mouse
 - Windows XP or newer, or Apple OS X 10.5 or newer 64-bit
 - 1024x768 Resolution Monitor (minimum)
 - A mouse is highly suggested over a track pad.
 - Optionally, external, powered computer speakers or audio output wired into the event A/V system.
 - JRE 17 or higher <https://www.oracle.com/java/technologies/downloads/Current> *FIRST* Tech Challenge Live scoring software
 - *The latest Google Chrome (chromium) browser must be loaded on all laptops.*
 - (1) High speed printer or a printer and access to a copy machine.
- (1) Ethernet cable
 - Required if the optional FTC Live system network is used (recommended)
 - Long enough to connect the FTC Live software laptop to the scoring system router
- (1) Wi-Fi router
 - Required if the optional FTC Live system network is used (recommended)

Scoring System Display Applications Requirements

The following is required for each separate FTC Live system display.

- (1) Laptop computer
 - Windows XP or newer, or Apple OS X 10.5 or newer
 - Oracle (Sun) Java, version 1.5 or higher
 - *FIRST* Tech Challenge FTC Live system software (same version as on FTC Live system laptop)
 - *The latest Google Chrome (chromium) browser must be loaded on all laptops.*
- (1) Large screen display or projector (Display for Audience)
 - capable of 800x600 minimum resolution
- (1) Large screen display for Match Timer Display (one display per field)
 - capable of 800x600 minimum resolution
 - Speakers
- (1) Ethernet cable
 - Required only if a wired FTC Live system network is used.
 - Long enough to connect the laptop to the FTC Live system router

Appendix F: Printing Checklist

Most events need to work offline, so having your resources printed and available on the day of the event will ensure they are easy to access when needed. The following checklist is a checklist of suggested items you need/might want to have on hand and where they will be needed:

For Registration and Check-In		
Item	Qty.	Printed?
Conflict of Interest and Disclosure Statement	25	
Safety Concern or Non-Medical Incident Report form	25	
YPP (Youth Protection Program) Medical Incident Report form	25	
For Pit Admin		
Item	Qty.	Printed?
Full Match Schedule (Pit use Only)	1 per Team, 1 per volunteer plus 10-20 extra (generated and printed after teams have completed inspection)	
Check in Roster	1 for each volunteer at check-in	
Field Inspection Sheets	1 per team plus 10-20 extra	
Robot Inspection Sheets	1 per team plus 10-20 extra	
Legal / Illegal Parts list	1 for every 2 inspectors	
Game Forum	1 for every 2 inspectors	
Game Manual (for reference)	2	
Consent and Release Forms	10-20	
One Page Game Overview	2 per team plus 10-20 extra	
Lost Item Sheets	10-20	
Pit Maps	1 per team, 1 per volunteer plus 10-20 extra	
Team Agenda	1 per team, 1 per volunteer plus 10-20 extra	
Spectator Agenda	1 per team, 1 per volunteer plus 10-20 extra	
Team List	1 per team, 1 per volunteer plus 10-20 extra	
For Judges Room		
Item	Qty.	Printed?
Judging schedules for each Room	1 per team, 1 for each judge, plus 5-10 extra	
Judge Advisor Manual	1 for the Judge Advisor	
Judges Manual	1 for each deliberation room	
Door Signs for each Room	1 for each Judging interview room	
Match Observation Sheets	1 per team plus 10-20 extra	
Judges Summary Sheets	1 per team plus 10-20 extra	

Appendix G: Event Setup Checklist

Thank you to the Los Angeles region for providing this template.

The Night Before the Event

Pits

- Table setup
- Team # setup (placing signs on proper tables)
- Field setup
- Caution tape inspection line
- Audio setup (if applicable)
- Pit display setup, wiring from competition area, and temporary breakdown.
- Video display setup, wiring from competition area, and temporary breakdown.
- Registration setup
- Extension cable layout and taping

Competition Area

- Field setup
- Scorekeeping System setup and checked out.
- 1st FIELD NAME and 2nd FIELD NAME (if applicable) signage
- Table setup
- Audio setup (if applicable)
- Camera video setup (if applicable)
- Queuing area taping
- Cable taping
- Tarp intersection taping (if applicable)
- Stanchion and caution tape setup

Volunteer Break Room

- Coffee maker setup
- Non-perishable food setup

Outside

- Caution Tape/Robot walking area
- Post signs
 - Robot drop off.
 - Competition area
 - Pits

Morning of the Event (before Opening Ceremonies)

Volunteer Check-in

- This will start very early. Make sure you have name tags plus spares, breakfast and coffee in the volunteer lounge and someone who is responsible for handing out any required manuals (have extra copies of everything!) and instructing “day of” volunteers as to what their duties are.
- Hand out safety glasses to volunteers.

Registration

- Teams will inevitably show up before the time you designate “Pits open” and ask to setup at their table.
Gracious Professionalism® - “Doing your best work while treating others with respect and kindness - It’s what makes FIRST, first.”

Be prepared for this, and be consistent in your response.

- Decide on a cut off time ahead of time for teams checking in. Make sure teams know what time this is, in advance.
- You may have teams that do not show, be prepared with cell phone information for every Team!
- Once you decide all teams that will be coming are there, and will pass inspection, give the final team list to the Scorekeeper.
- Hand out Driver/Coach buttons (if applicable).
- Have extra copies of Consent and Release forms; Teams sign them online, but a few may be needed.
- Have a secure place (a lockbox works) to store completed consent and release forms and team rosters.

Inspection / Judging

- These are happening together. Your pit runners and pit manager will need to be on top of ensuring teams get to their designated locations on time.
- See notes regarding Inspection above.

Competition Prep

- Once the Scorekeeper receives the final team list, the Scorekeeper will generate the match list. Make printed copies to be distributed to the teams, Emcee, Pit Manager, Judge Advisor, Lead Queuer, Head Referee.
- 1 hour prior to Opening Ceremonies, everyone who is working the competition area should meet, led by the Field Supervisor to discuss how the competition will be run, who is responsible for what, and establish a game plan that will keep match turnover running as fast and as efficiently as possible.
- 30 minutes prior to Opening Ceremonies, the Head Referee will hold a Drivers Meeting that has mandatory attendance by all drivers from each team. Make sure the Pit Manager and Pit Runners are aware of when this is supposed to start so that they can ensure every team is represented.
- Queue first three matches just prior to beginning Opening Ceremonies

During Competition

Opening Ceremonies

- National Anthem - Make sure you have a flag and either a copy of the National Anthem to play or a volunteer or student or volunteer to sing it, or play it on an instrument.
- Follow Emcee script.
- Play Scholarship video.
- Play game animation/video.
- Play Gracious Professionalism Video

Qualification Matches

- Target a 7-minute (or better) turnaround for each match. Longer if using only 1 field.
- Robots on deck should be turned on and paired.

Lunch

- Make sure volunteers have time to eat lunch.

Alliance Selection

- Give Teams a 10-15-minute break between Qualification Matches end and Alliance Selection

- One representative from each team must be present in the competition field area before Alliance Selection can start.
- The Emcee reads the Alliance Selection Script, then goes through the selection process. During this time, the Scorekeeper is actively logging the Alliance selections.
 - Keep a handwritten record of alliance picks as a backup.

Semi-Final Matches

- These are operated using the best of three methods. There will be two match groups (of 2 Alliances each). Alternate which match group is competing to give teams time to recover and reset their robots.

Finals

- Prior to the final match, the Finalist Alliances will recognize and honor each other by shaking hands, waving across the field, or something similar.

Closing Ceremonies

- Use the script provided by *FIRST*. This can be found in the [Tournament Director](#) section of the *FIRST* website.
- Start with awards, handed out by the Judges. Make sure the correct trophies / medals are handed out for the award.
- Thank your sponsors!
- Thank your volunteers!
- Thank your coaches, mentors, and parents!

Appendix H: Event Day Registration Packets

Volunteer Registration Packet

- Thank you letter and, or a gift.
- Name Badge
- Meal Voucher (if applicable)
- Event Schedule
- Team List
- Conflict of Interest form
- Items relevant to role (i.e.: Inspection checklists to Inspectors)
- Map of the Venue with exits clearly marked.

Team Registration Packet

- Event Schedule
- Team List
- Venue map with exits clearly marked.
- Inspection Schedules
- Driver (2) and Coach (1) buttons
- Meal Voucher (if applicable)
- Map of the Venue (if applicable)
- Pit Map (if applicable)
- Team Security Checklist (appendix R)

Appendix I: *FIRST* and *FIRST* Tech Challenge Materials

Tournament Directors need materials to promote *FIRST* Tech Challenge and *FIRST*. Some of these materials are provided by *FIRST*, some by the Program Delivery Partner, and some by the Tournament Director. The following lists of materials are just a few of the options available to Tournament Directors.

Banners

Your Program Delivery Partner will have *FIRST* Tech Challenge -branded banners which they may provide to you for use at your event. Contact them to see if this is an option.

Hand-Outs

- [Game 1-Page Document](#)
- [FIRST Tech Challenge How It Works](#)

- [FIRST Tech Challenge Promotional Flyers, Posters, and handouts](#)

Media and Press Tools

- [FIRST Marketing and Press Tools](#)

Presentation Materials

- *FIRST* Tech Challenge PowerPoint Presentation template (available on SharePoint for Partners)
- [FIRST promo video](#)
- [FIRST Tech Challenge Promo video](#)
- [Game Animation video](#)
- [Gracious Professionalism Video](#)
- [FIRST Scholarship Video](#)
- [FIRST Scholarships!](#)

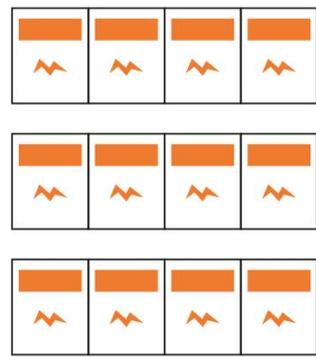
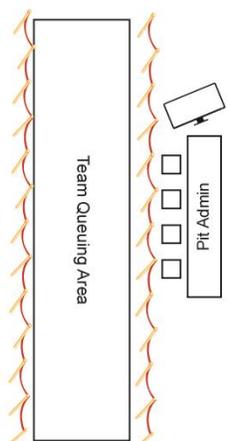
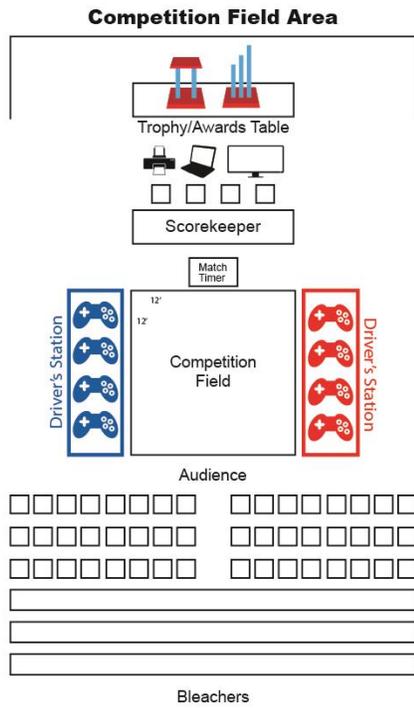
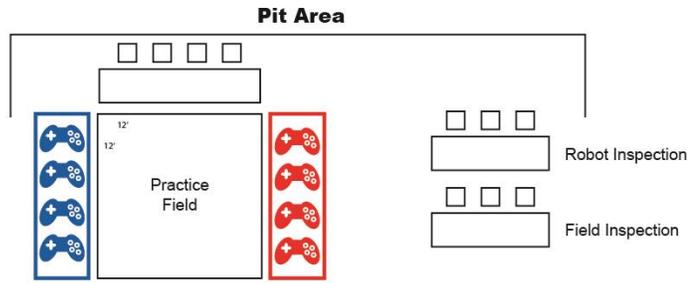
Appendix J: Sample Inspection and Judging Schedule

The following schedule is set up for a 12-team event with 3 robot inspectors, room for 3 teams at a time at field inspection, and 3 judging panels. It is recommended that you schedule your rookie teams to go through inspection first, as they often need to come back for re-inspection. This schedule gives teams time to get to their next appointment without feeling rushed and provides judges and inspectors with an opportunity to gather their thoughts and paperwork before their next appointment.

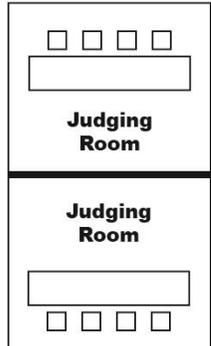
Team #	7:00	7:15	7:30	7:45	8:00	8:15	8:30
3081	Field Inspection				Judging		Robot Inspection
3501	Field Inspection				Judging		Robot Inspection
5089	Field Inspection				Judging		Robot Inspection
6051			Judging		Robot Inspection		Field Inspection
6411			Judging		Robot Inspection		Field Inspection
8311			Judging		Robot Inspection		Field Inspection
9019	Judging		Robot Inspection		Field Inspection		
10400	Judging		Robot Inspection		Field Inspection		
10140	Judging		Robot Inspection		Field Inspection		
10502	Robot Inspection		Field Inspection				Judging
10503	Robot Inspection		Field Inspection				Judging
10610	Robot Inspection		Field Inspection				Judging

Appendix K: Floor Plan Template

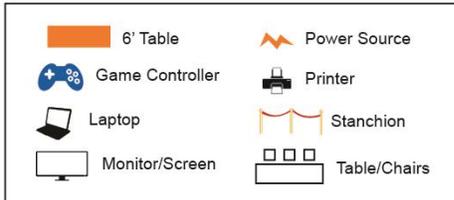
Sample FIRST® Tech Challenge Event Layout - Square Field



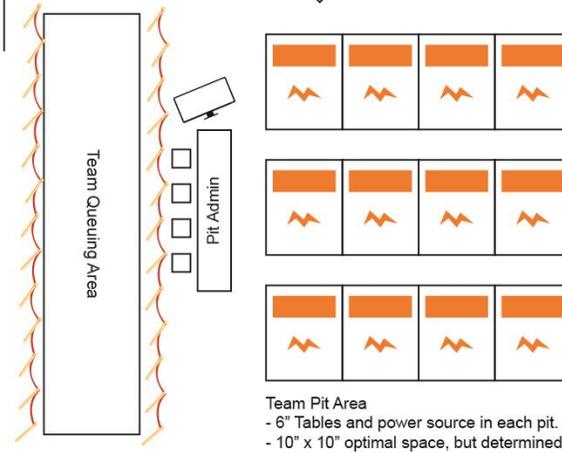
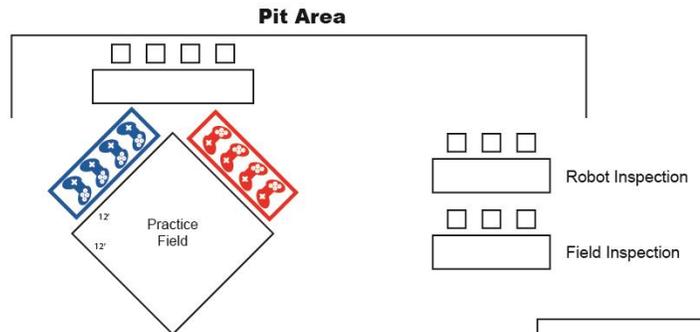
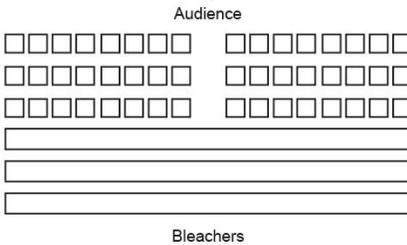
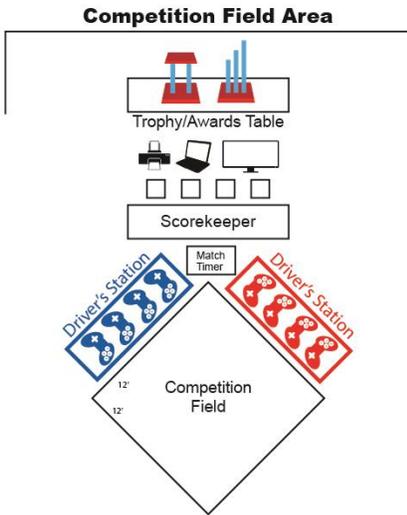
Team Pit Area
 - 6" Tables and power source in each pit.
 - 10" x 10" optimal space, but determined by space restrictions.



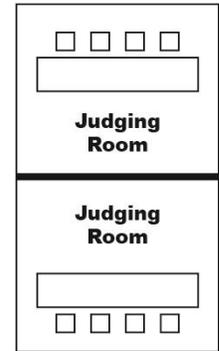
Key



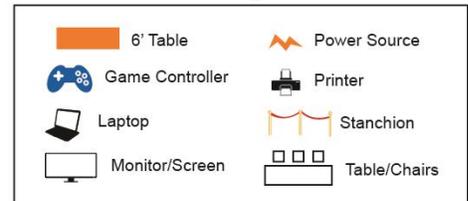
Sample FIRST® Tech Challenge Event Layout - Diamond Field



Team Pit Area
 - 6" Tables and power source in each pit.
 - 10" x 10" optimal space, but determined by space restrictions.



Key



Appendix L: Recommendations for Static Mitigation

In climates when the relative humidity at normal room temperature is less than 40%, *FIRST* recommends that partners follow one of the actions below to reduce [static buildup](#) on the robots.

- Most Effective (Highly Recommended): Heavy Duty Staticide
- Effective: General Purpose Staticide

Most Effective – Antistatic Spray

Use a commercial Antistatic spray. These sprays increase the electrical conductivity at the surface of the tile floor and reduce the build-up of electrostatic charge on the robots. We do not recommend Static Guard or other products meant for clothing. We recommend the following Antistatic sprays:

Steps to Apply Staticide:

1. Tape the fields prior to using spray.
2. Spray the field tiles at least 1 hour prior to field use. Please be sure the area is well ventilated.
3. Spray the field tiles until they are damp (but not excessively damp).
4. Allow the field tiles to dry before use.
 - a. Note: Antistatic sprays will change the characteristics of the field tiles. It is important to communicate this in advance to teams in your region.
5. An application of spray should last at least an entire competition.
 - a. The Heavy-Duty Staticide spray can be sprayed less frequently, one treatment for every few (4 or more) competitions.
 - b. The General-Purpose Staticide spray can also be sprayed less frequently, however, even when freshly applied, it is not as effective as the Heavy-Duty Spray.

Effective – Water

Water is also *extremely* effective at mitigating the risk of an electrostatically induced disruption. Water enhances the electrical conductivity of the tile floor and reduces the build-up of charge on robots.

Steps to Apply Water:

1. Add water to a spray bottle.
2. Spray water on field tiles so that the tiles are initially visibly damp, but not over saturated.
 - a. Spray only enough so that the water gets absorbed into the tiles a minute after spraying.
 - b. There should NOT be puddles of excess water on the field after spraying.
 - c. Use a towel or rag to dry any field elements that might become slippery if accidentally sprayed.
3. Reapply water every 20 to 25 minutes.

Appendix M: Graduation Ceremony

FIRST Tech Challenge celebrates and honors our incredible students that have worked to achieve great accomplishments in STEM fields, on their team, and in their communities. We are proud of all our students have accomplished and want to honor their achievements and transition from student/participant to *FIRST* alum by recognizing them in front of their peers and publicly inviting them to join our [alumni community](#).

To celebrate our rising alumni, we recommend holding a graduation ceremony at the welcome ceremony of your regional championship event. We recommend having a program delivery partner or *FIRST* Alumni speak about the celebration of our alumni, the importance of *FIRST* alumni in our STEM communities, staying involved in *FIRST* as an event volunteer, coach, or mentor, and other ways alum can stay connected to *FIRST*.

At your state or regional championship event, we advise including a segment in your welcome ceremony where each rising alum is identified, and their first name and team number are called out in front of the assembly. Seniors can be identified at team check in by their coaches and then called out in team or alphabetical order by the emcees at the ceremony. Once a student's name is called, they can walk to the front of the assembly to receive their *FIRST* Alumni Handbook as well as a certificate/pin if the program delivery partner chooses to include a certificate/pin.

If your venue and event have the time and space, we also recommend taking a group photo of all the senior student participants at the end of the ceremony. These photos can be sent to alumni@firstinspires.org.

If you have any questions about recognizing alumni at your event or services and benefits available to *FIRST* alumni, please email alumni@firstinspires.org.

Appendix N: Audio Levels for *FIRST* Events

This section describes guidelines for establishing audio levels at *FIRST* events that can create excitement with spectator safety and comfort in mind.

Event managers are responsible for ensuring that the amplified audio is at an appropriate level. This is performed through the configuration of acoustic systems, communicating expectations with DJs and audio crew members, as well as monitoring throughout the event.

There is not “one size fits all” configuration as each event and venue is unique in terms of the:

- Inherent acoustic properties of the space
- Size of the crowd and audience generated noise at various times during the event.
- Event agenda and associated exposure time intervals to various sound levels
- Amplified speaker installed location (both field and pit areas)
- Individuals managing the audio levels.
- Variation of individual announcer voices and microphone positioning during the event

In addition, there are several inputs that will need to be adjusted to the proper volume. These inputs may include, but are not limited to, the Emcee, the play-by-play announcer, the DJ or music, the game sounds including videos and animations, pit announcements, and various presenters for ceremonies.

Guidelines for managing sound levels at events:

- Comply with all local regulations regarding event noise exposure limits.
- Place speakers at least 7' (2 meters) above the ground
- Where practical, do not have audience members seated or located within 10 feet (3 meters) of speakers with an absolute minimum distance of 3 feet (1 meter)
- Maintain 'A-weighted' sound levels of 90 dBA or lower over the duration of the event in all parts of the venue, including audience, pit, and field areas.
- Maintain sound levels of 80 dBA or lower during normal game play (e.g., qualifiers) with increase (not to exceed 90 dBA) during specific times such as prior to alliance selection, playoff matches, finals, and other periods of increased excitement.
- Perform sound checks during event preparation and conduct periodic sampling from various locations during the event to monitor sound levels.
- Drop music levels during speaking (team introductions, matches, etc.) so that the emcees and game announcers do not have to talk “over” music at a higher level to be heard. This will also make it easier for teams to communicate with each other during competitions.
- Schedule specific breaks each morning, lunchtime and afternoon with no music being played or music at a relatively low volume (less than 70 dB)
- If possible, established dedicated “quieter” seating areas where speakers are not pointed in that direction.
- Make foam earplugs available (for example, at safety glass stations and pit admin), or advise teams to bring their own.
- Limit the number of pit announcements by consolidating information when possible.

Appendix O – Event Volunteers

A detailed list of volunteer roles, requirements, and minimum age information can be found here:

[FTC Event Volunteer Roles](#)

Event Volunteers must complete a Youth Protection screening (US and Canada). Event volunteers outside of North America must follow local Youth Protection compliance rules.

****Volunteer Minimum Age Requirement***

The minimum age requirement for a *FIRST* volunteer is **13 years old**. A minor must have a parent or guardian give written permission to volunteer and minors must work in pairs as assigned by *FIRST* in accordance with the [FIRST Youth Protection Program](#) policy.

Appendix P – Team Security Checklist

This document should be sent to teams in advance of the event, to give coaches and students an opportunity to make a safety plan. Please include a map of the venue, with exits marked to assist attendees in their planning.

Safety and security are very important in the FIRST® Community. Here are some ways you can do your part to maintain a safe and secure event.

1. Know and follow your team's safety plan.
2. If you see something unusual, worrying or not safe during the event, or if something or someone makes you feel uncomfortable, tell Pit Admin or other event staff. **See Something, Say Something!**
3. If there is an emergency, listen to any announcements and follow the instructions in a calm manner.
4. Know where your team plans to meet if there is an evacuation or need to take shelter.
5. If you cannot find your team during an emergency, look for another adult who has team or event clothes on and other students with them. Tell them you are separated from your team and need help.
6. If you have a phone, keep it charged and with you. Make sure you have saved the contact information of the adults who can help you during an emergency.
7. Tell mentors and coaches where you will be when you are not with the team, for example if you are going to another part of the event or the restroom.
8. Know what to do if you are lost or feeling uncomfortable.
9. Make sure to report any medical or safety concerns to Pit Admin or a trusted adult.

Report a Concern



firstinspires.org/report or
safetyfirst@firstinspires.org
603-666-3906 ext. 250

Youth Protection Policy Information



firstinspires.org/yp

Appendix R – Preparing to Safely Attend a FIRST Event

Preparation in advance by all attendees can go a long way in contributing to a safe, enjoyable event for all. While we do not anticipate any problems, we recognize the need to be ready for any emergency that can arise. With safety in mind, here are some suggestions for your team’s preparation and attendance of an event:

Team Leaders, with input from others, review Youth Protection Policies along with

program, and event-specific safety guidance. Then create a written safety plan for the team in preparation for attending the event. This plan should include:

- a. Safety while traveling
- b. Safety at the event location (where to go in an emergency, how to stay in touch with each other at the event, how to seek medical help, etc.)
- c. Identifying individual health concerns (Diabetic, allergies, disabilities, etc.)
- d. Personal and emotional safety if you are lost or feeling uncomfortable for any reason.
- e. Emergency communication (who to call, parent contact info, who’s in charge)
- f. Team safety check-ins before, during, and after the event

Hold a team safety meeting before you go to the event:

- g. Review the safety plan.
- h. Talk about what to do in different situations like fires, bad weather, or if someone bothers you or makes you feel uncomfortable. Ask questions about “what if” scenarios.
- i. Verify all team members have key team contacts saved in their phone or know how to reach each other.
- j. Verify everyone’s emergency contact and medical information.
- k. Tell everyone they have the right to feel safe at all times, and if something’s wrong, they should tell an adult they trust.

At the event, find important places near your team’s area, the field, and common areas, such as:

- l. First aid station(s) and pit admin
- m. A meeting spot if you need to leave the venue quickly.
- n. Safe shelter in place locations
- o. Where to find emergency exits, fire extinguishers, and AEDs (automated external defibrillators), if available

In the unlikely event of an emergency:

- p. Listen carefully for instructions because each situation will be different. Follow event staff instructions.
- q. Stay calm and help others to follow the instructions. If someone on your team needs extra help, make sure someone takes care of them.
- r. After you are safe, check that everyone on your team is okay.
- s. Follow your team’s safety plan and conduct emergency communication as needed to tell parents and others what is happening.

See Something, Say Something:

We all need to watch out for each other. If you see something out of the ordinary or worry about it, tell Pit Admin or a trusted adult right away. Tell your team members to do the same and explain how to report problems, either to you as their coach or mentor or directly to event officials.

Instilling a culture of safety is a value that every individual in the *FIRST* community must embrace as we pursue *FIRST*'s mission and vision. By working together, we can help everyone stay safe and healthy at *FIRST* events.