

Robot Inspector Manual

Revision History			
Revision	Date	Description	
1.0	10/16/2024	Initial 2024-2025 Release	
1.1	12/11/2024	 Updated the role requirements to the table format Removed duplicated sections Updated broken links Added sections Emergencies Lost Children Medical Incident Reporting Non -Medical Incident Reporting 	

Contents

Overview	
Job Description	
Time Commitment	
Attire	
Training and Certification	3
Roles and Responsibilities	
Lead Robot Inspector (LRI)	
Prerequisites for Lead Robot Inspector	5
Robot Inspector	5
Before the Event	5
Event Day	6
Report Time	۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰
Set-un	۰۰۰۰۰۰۰ ۲
Robot Inspection Process	/
Inspection Checklist	
Starting Configuration Inspection	
Expansion Limit Inspection	8
Robot Siglis	
Inspection Troubleshooting	
End of the Day	
I eam Interaction and Support	
Emergencies	
Lost Children	
Medical Incident Reporting	
Non-Medical Incident Reporting	
Salety	
Important Tools	
Public Schedule	14
Registered Teams List	
Event Layout/Map	
Pit Map	



Useful Links and Information	
On-Call Support Numbers	
Pre-Event Support	
Program Resources	
Feedback	



Overview

Roles Covered: Robot Inspector, Lead Robot Inspector

Job Description

The Robot Inspector is responsible for inspecting robots match play to ensure they are safe, sized correctly, and are made up of legal parts. Most events have an experienced Lead Robot Inspector that oversees a Robot Inspector crew.

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

Time Commitment

A Robot Inspector should expect to spend 2-3 hours at a full day event and 1-2 hours at a league meet. Robot inspections happen at the beginning of the tournament; therefore, Robot Inspectors might also serve in another role once robot inspections are complete. If a Robot Inspector has indicated in their application, they are available for the full day, the event director may assign them another role once robot inspections are completed. Approximately 6-8 hours of pre-event training and planning is required.

Attire

- Comfortable closed-toe, closed-heel shoes, much of the day will involve standing and walking.
- ANSI Z87.1 certified safety glasses are required in the pit and competition areas.

Training and Certification

Inspectors must complete the required reading in this section and are required to pass a certification test prior to serving as an inspector. The Inspector must be confident and comfortable with the robot construction rules to be able to assist teams at a *FIRST* Tech Challenge event. Learning ahead of time will go a long way towards keeping the event running smoothly and on time.

Resources for training and certification:

Requirement	Resource	
Required	The Inspection - Field Manual (this document)	
Poquirod	Competition Manual:	
Required	 <u>Section 12 – ROBOT Construction Rules</u> 	
	Team Updates - <u>Combined</u>	
	 Team Updates are posted on a bi-weekly (twice a month 	
De metre d	basis. These releases occur on Thursdays at noon.	
Requirea	Referees and Head Referee's are required to read the team	
	updates, and encouraged to sign up for the Team Update	
	notification emails to help stay up to date.	



Requirement	Resource
Encouraged	Competition Manual, specifically: • Section 9 - ARENA • Section 10 - Game Details • Section 11 - Game Rules • Section 13 - Tournament
Encouraged (New this season)	 <u>Volunteer Q&A System</u> - The Q&A serves as a space for these volunteers to ask questions and receive official answers from <i>FIRST</i> Staff and our Global Key volunteers about the Competition Manual and its expected implementation. To access the Q&A volunteers must have an active <u><i>FIRST</i></u> <u>Dashboard account</u>, have applied to volunteer in the specific role for the 2024-25 INTO THE DEEP season, and have a signed consent and release form.
Encouraged	Attend the monthly Inspection conference calls
Optional	watch the <u>game animation video</u> for a general understanding of the game
Optional	<u>FTC Q&A System</u> - This is a resource for teams, however you may also find these useful for rule clarifications

Volunteers must create an account on <u>www.firstinspires.org</u> and apply to the role. If you apply to an event role requiring training and certification, the 'Roles Missing Certification' section will appear on your Volunteer Dashboard. Click on 'Review Outstanding Tasks', then click the 'Resolve' button. This will take you directly to the training site. Alternately, you may also click on the 'Trainings/Certification' button on the top right of the screen. If you have applied for a role but have not received access to the training, please email <u>FTCTrainingSupport@firstinspires.org</u>. A separate confirmation of the role assignment will come later.

Robot Inspectors should speak to the Lead Robot Inspector, or Event Director, to find out what additional requirements, such as meetings before the event or run-throughs of the space before the event are required.

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

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

Roles and Responsibilities

Lead Robot Inspector (LRI)

Robot Inspectors perform required inspections to ensure compliance with construction rules. Lead Robot Inspectors supervise the Robot Inspectors and act as a resource to the Robot Inspectors performing the inspections. The Lead Robot Inspector's responsibilities include:

• Collaborate with the Event Director and Lead Field Inspector to create an inspection schedule.

Rev. 1.1 12/11/2024



- Assure the required robot inspection tools and materials are available on event day.
- Work closely with the Lead Field Inspector so the entire inspection runs smoothly, and all robots pass inspection before the opening ceremony.
- Provide periodic progress updates to the event director and FIRST Technical Advisor.

Prerequisites for Lead Robot Inspector

To serve as a Lead Robot Inspector, previous experience as a Robot Inspector is required.

Robot Inspector

Robot Inspectors ensure that every robot follows the guidelines outlined in the *FIRST* Tech Challenge <u>Competition Manual</u> and are ready to compete on the playing field. The inspection process involves filling out a checklist for every robot and marking the robot as passed inspection via the inspection tablets or on the inspection checklist.

Before the Event

FIRST Tech Challenge tournaments squeeze a lot of activity into one day. One of the keys to running a smooth and successful event is for teams and volunteers to show up prepared. Teams spend countless hours preparing for competition day and we ask our volunteers to prepare for tournament day as well. Robot Inspectors must participate in training before volunteering at an event. They also must pass a certification test. Training and the certification test are provided by *FIRST* Headquarters.

Required reading for training and certification:

Requirement	Resource
Required	The Robot Inspector Manual (this document)
Required	The Competition Manual, specifically Section 3 Competition Eligibility and Inspection Section 12 ROBOT Construction Rules
Required	The <u>robot inspection checklist</u>
Encouraged	Inspection Quick Reference (coming soon!)
(New this season) Encouraged	 <u>Volunteer Q&A System</u> - The Q&A serves as a space for these volunteers to ask questions and receive official answers from <i>FIRST</i> Staff and our Global Key volunteers about the Competition Manual and its expected implementation. To access the Q&A volunteers must have an active <u>FIRST</u> <u>Dashboard account</u>, have applied to volunteer in the specific role for the 2024-25 INTO THE DEEP season, and have a signed consent and release form.
Optional	<u>FTC Q&A System -</u> This is a resource for teams, however you may also find these useful for rule clarifications

Volunteers must create an account on <u>www.firstinspires.org</u> and apply to the role. If you apply to an event role requiring training and certification, the 'Roles Missing Certification' section will appear on



your Volunteer Dashboard. Click on 'Review Outstanding Tasks', then click the 'Resolve' button. This will take you directly to the training site. Alternately, you may also click on the 'Trainings/Certification' button on the top right of the screen. If you have applied for a role but have not received access to the training, please email FTCTrainingSupport@firstinspires.org. A separate confirmation of the role assignment will come later.

Event Day

Report Time

The Event Director or Volunteer Coordinator will confirm the time you should arrive typically via email the week before the event. In most cases, Robot Inspectors will need to arrive at the event as soon as the event opens for volunteers to ensure the robot inspection tables are setup up, and Robot Inspectors are in place when teams start arriving for inspections. In rare cases, robot inspections might begin the night before the event and continue into the next morning in cases where teams weren't inspected the night before.

When Robot Inspectors arrive onsite, check-in with the volunteer coordinator and report to the lead Robot Inspector. Lead Robot Inspectors report to the *FIRST* Technical Advisor.

Set-up

After checking in, robot inspectors should check to make sure they have the appropriate resources and tools needed to complete robot inspections. Some items that are needed for robot inspection include:

Supplies:

- An 18" x 18" x 18" (45.72 cm x 45.72 cm x 45.72 cm) robot sizing tool
- Inspection tablet or inspection checklists*
 - Robot inspection checklists can be found on the FIRST website)
- Power switch stickers
- Pens
- Yardstick
- Tape measure
- <u>Robot Sign Templates</u>

• These are to assist teams that may show up to the event without their own robot signs.

Supporting documentation

- Robot Inspector manual
- Copies of the competition manual
 - Digital copies of the competition manual are accessible through the Robot Inspectors' tablet, which is the preferred method to access the manual. This ensures the inspectors are viewing the most current version of the manual.
- Team List

* Most events will provide a tablet to the Robot Inspector (s). This tablet is used for the Robot Inspector to indicate which teams have passed inspection, and which teams are currently in the process of completing inspection. For those events not using tablets, paper copies of the checklists will be used for each team.



Robot Inspection Process

A typical robot inspection crew has a Lead Robot Inspector and several Robot Inspectors. The lead Robot Inspector will explain the overall inspection process for the event and is the robot rule expert. Feel free to ask the Lead Robot Inspector about robot parts that are unfamiliar and for help with difficult pass or fail decisions. On-call *FIRST* Tech Challenge staff are available on event day to aid Robot Inspectors.

It is the responsibility of the Robot Inspector to:

- Greet the team. Inspectors are generally the first volunteer a team will interact with.
- Go through the inspection checklist with the team.
- Assess the team's robot and identify if there are illegal parts on the robot.
- Identify potential concerns of entanglement (loose cables) or safety.
- Help the team to be successful.
- Be fair and apply the same thoroughness for every team.
- Treat all teams with *Gracious Professionalism*[®].

Always keep in mind that as a Robot Inspector your role is not to fail a team. You are in a role to help a team pass inspection while keeping within the rules so that they can compete.

Although not an all-inclusive list, the below sections will cover some best practices for robot inspection.

Inspection Checklist

Stepping through the robot inspection checklist from top to bottom is the most effective process for verifying compliance with the robot construction rules.

If the inspector doesn't recognize a part of the robot, ask a student for additional information. If necessary, ask the team to identify the rule that allows the part.

Once the checklist is filled out, congratulate the team for passing inspection or clearly describe any rule violations and work with the team to find acceptable solutions. It is best if the team leaves inspection with a remediation plan that has received preliminary approval from an inspector.

End the inspection session on a high note by complimenting the team or robot. Ask the team if they have any questions about the inspection process. Remind the team that field inspection is separate and can be completed even if the robot has failed robot inspection.

Starting Configuration Inspection

The robot sizing tool is the official gauge of whether a robot has met the match start size constraints of 18 in x 18 in x 18 in (45.72cm x 45.72cm). Sizing tools can differ from event to event. Some events may use a box to inspect the size of the robot. Other events have come up with sizing tools that slide over the robot. Either method is okay.

If a sizing box is used, slide the robot into the open end of the sizing tool. Robot contact with the sides and top of the sizing tool is allowed unless the support provided by the sizing tool aids the robot in keeping within the 18-inch (45.72cm) cube size constraint. There should be no undue pressure on any of the wall sides or back of the tool. Slide a flat plate or yardstick over the open side of the tool to verify compliance at the opening of the sizing tool. Flexible materials (for example, zip tie, surgical tube, string) are allowed to extend up to 0.25 inches (0.635 cm) beyond the 18-inch (45.72 cm) size constraint.



Sometimes, a team will need to turn on the robot's main power and run the autonomous period initialization routine to command servos to their starting positions for the robot to fit into the sizing tool. This is acceptable if they understand they must do that for every match. The Robot Inspector should ask the team if their robot will expand upon software initialization. If yes, the Inspector should have the team initialize their robot for the sizing inspection.

Expansion Limit Inspection

Robot Inspectors are responsible for making sure that each robot complies with the horizontal expansion limit in rule R104.

The best practice to inspect expansion limits is to create a 20" x 42" boundary on the floor. This can be done directly on the floor using tape or using tape on two soft tiles.

Although tabletop inspection is possible, robots will need to be powered on to demonstrate their compliance with the rule. To avoid robots accidentally tipping off a table and getting damaged, the floor is the best place for this inspection.

Inspection Steps

- 1. Have the student place the robot into the size boundary. Remember that the chassis placement in the boundary is important, as the 20" x 42" boundary will move with the robot chassis.
- 2. Before beginning the inspection, allow the team to make the proper adjustments within the boundary to ensure their robot's chassis is in the desired location within the size boundary.
- 3. Once the robot is placed, the robot position is fixed and can no longer move within the boundary.
- 4. Have the team demonstrate their robot expansions.
 - a. Having the team power on their robot.
 - b. Having the team demonstrate maximum extensions of the robot and do not exceed the 20" x 42" boundary.
- 5. Pay close attention to movement of the robot chassis. The chassis may not move within the size boundary in order for robot extensions to stay within the size boundary.
- 6. If the team has multiple configurations:

Configuration	Action	Special Considerations
Additional mechanisms that will be swapped out from match to match	Once initial inspection is complete, have the team swap their mechanism and repeat the inspection steps	The robot with the new mechanism does not have to be placed in the same location within the box as the initial inspection. The inspection with the new mechanism must meet requirements.
Additional configuration with software limits that will be swapped from match to match	Once initial inspection is complete, have the team demonstrate their additional configuration and repeat the inspection steps	The robot demonstrating a different software configuration does not have to be placed in the same location within the box as the initial inspection. The inspection with the new mechanism must meet



	requirements. The team must
	understand that they can use
	either configuration during a
	match, but not both.

Expansion Examples

For a great visual representation of this process, please check out the <u>R104 Recap</u> video.

Example	Inspection Pass/Fail	Reason
Robot has two mechanisms. When extended simultaneously, they exceed outside of the 42" size constraints. The team states that they will only use one mechanism at a time, therefore never exceeding the 42" at once. In order to stay within the 42", the robot chassis must move when extending to one side or the other.	Fail	The robot chassis should be fixed in the box. The design described would mean that the robot chassis must move within the box to fit, depending upon which side is extended.
Robot has two mechanisms. When extended simultaneously, they exceed outside of the 42" size constraints. The team demonstrates that, with software limits, only one extension will be used in a match. For other matches (example, switching from the red to the blue alliance) the team can control the second extension with software limits and can demonstrate that BOTH configurations	Pass	The team has demonstrated that they have software that limits one extension at a time during a single match.

Robot Signs

Robot signs are vital for match play and are sometimes overlooked by teams. Each team must have two robot signs with their team number as outlined in rule R401. Additionally, teams will need two sets of robot signs as the robot signs indicate the team's alliance for a given match, per rule R402. Ideally, having the <u>robot sign template</u> available in these instances is a great resource to teams to help get them through the inspection process.

Robot Safety Inspection

Sharp Edges

Inspectors are required to check for sharp edges on a robot that could pose hazards to the arena, team members, or field staff. While rule R202 is important to assess, it's equally important that Inspectors are safe while evaluating a robot for sharp edges. If an Inspector identifies a potential sharp edge that may violate the rule, they may use other tools such as a piece of paper or a spare soft tile to evaluate how sharp the edge is. If either the paper or the tile is sliced on the sharp edge, have the team file the edge.



Inspection Troubleshooting

Repeated Failures

If a team repeatedly fails inspection (robot or field inspection), identify the team to the Event Director and ask that they find someone to work directly with the team. Our goal is for every team to be successful, so please make every effort to help the team.

If a team cannot pass inspection, even with help, the Program Delivery Partner or Event Director must decide how to continue.

Re-inspection

If a team makes significant changes to their robot or their programming during the day, they must undergo another inspection. It is not unusual for a team to ask for a reinspection of their robot.

The Head Referee may ask for a reinspection of a robot based on observations on the playing field. The Robot Inspector will reinspect the robot and report the results to the Head Referee. If the Robot Inspector and Head Referee disagree, the Robot Inspector should cite the supporting rule(s) and reason for the ready or not ready recommendation. The Head Referee has the final authority over allowing a robot to compete.

End of the Day

The role of the Robot Inspector generally ends once inspections have been completed, which is prior to matches beginning. Therefore, some Robot Inspectors choose to leave the event once inspections have been completed. However, some Robot Inspectors may choose to fill another role during the event and will be present for the duration of the event. If possible, Robot Inspectors may assist other volunteers with the teardown of the event.



Team Interaction and Support

When interacting with teams please always consider the team's perspective. The teams have put significant time and effort into preparing for this event and may be feeling very stressed about everything working out as they have planned. **Today is a very big deal for the team and we are here to help!**

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

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

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

Note: the only person at an event who can give an official warning or issue a yellow/red card is the head referee. Please refer these more severe issues to the head referee and notify the program delivery partner.

Be cautious about passing on any negative feedback about any teams directly to the Judges or Judge Advisor (JA), because it's not possible to know all the contributing factors around such a complaint or observation. If there are issues which are repeated or egregious follow the <u>Non-Medical Incident</u> <u>Reporting</u> process and inform the Program Delivery Partner. The Judge Advisor may seek feedback from the Event Director to determine if there is any relevant information to provide the Judges for their evaluation process.



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

Emergencies

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

- A map of all the emergency exits
- Knowledge of where on-site medical support is located
- Shelter in place plans in the case of severe weather
- Evacuation plans

Teams should have their own safety plans before attending the event. *FIRST* provides a few resources to help teams plan including:

- <u>Team Member Safety at Events</u>
- Preparing to Safely Attend a FIRST Event

Two important links to have handy are the issue reporting link and Youth Protection Policy pages:

Report a Concern



www.firstinspires.org/report

Youth Protection Policy



www.firstinspires.org/ypp

Lost Children

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

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

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

Medical Incident Reporting

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

- Call 911 if there is any question that the injured person/persons require medical attention.
- Respond to the scene immediately. Bring a clipboard, pen, or a tablet to complete the incident report on the <u>FIRST Reporting Portal</u>.
- Complete the incident report for the injured party.



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

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

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

Non-Medical Incident Reporting

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

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

Ensure all issues are reported in a timely manner using the <u>*FIRST* Reporting Portal</u>. Have the participants select the correct category for their report:

- Youth Protection Concern: encompasses a wide variety of one-time or ongoing issues such as suspected abuse, bullying, harassment, discrimination, questionable behavior, or violation to the FIRST Code of Conduct. Must involve a youth participate otherwise use the 'other' category.
- **Other:** For issues which do not fall under the Medical or Youth Protection Concern Categories.

Safety

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

Prioritize working with the teams to help identify and correct potential safety issues in the area. Please review the section about



Team Interaction and Support for the best ways to work with teams on making changes.

Safety Glasses and Closed Toe Shoes

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

Important Tools

Public Schedule

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

Time	Agenda
7:15am	Doors Open for Volunteers
8:00am	Doors Open for Teams
8:30am	Judging & Inspection Commences
10:35am	Inspection Deadline
10:40am	Opening Ceremony & Driver's Meeting
11:00am	Qualification Matches Commence
12:00am	Lunch Time
12:30pm	Qualification Matches Resume
3:15pm	Alliance Selection
3:45pm	Elimination Matches
5:30pm	Closing Ceremony, Awards and Advancement Announcement

Figure 1: Sample Public Schedule for a Typical FIRST Tech Challenge Event

On occasion things that happen out of the event's control may impact the schedule. In these cases, work closely with the event director to understand the updated agenda.

Registered Teams List

The Robot Inspector should be provided with a team list by the Event Director or Volunteer Coordinator. The list will show the teams that must be inspected on event day.

Event Layout/Map

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

The Event Layout / Map should detail the following:

- Load-In Path
- Parking for Personal Vehicles and Busses
- Team Check-in

Rev. 1.1 12/11/2024



- Volunteer Check-in
- Competition Area
- Pit Area (May include the Pit Map)
- Judging Room Locations (if applicable)
- Safety Details as available (Emergency Exits, AED, Shelter in Place Locations)

Since inspections happen concurrently with team judging appointments, it may be helpful for inspectors to receive a copy of the judging schedule. This will show which teams are in judging at the times, which may help Inspectors to coordinate inspections with other available teams while other teams are participating in their judging interview.

Pit Map

Pit maps are typically provided by either the Event Director or by the Scorekeeper. Having a map of where each team is in the pit is key, as teams, parents or Queuers might need to find. Below are two sample pit maps in Figure 2 and Figure 3:



Figure 2:Example Pit Map for a small12-team Qualifier Event





Figure 3: Example Pit Map for a Typical Regional Championship Event



Useful Links and Information

On-Call Support Numbers

On-Call Support These numbers are for <u>volunteer support only</u> . Teams should not use these numbers to call about rulings or technical assistance.			
Administrative, Judge, Referee and Non-Technical Issues:	(603)206-2412		
Scoring System (FTC Live) or other Technical Issues: Call or use the built-in chat feature on FTC Live	(603)206-2450		

Pre-Event Support

Mon – Fri	8:30am – 5:00pm Eastern Time (UTC-4 or UTC-5)
Phone:	(603)666-3906
Email:	firsttechchallenge@firstinspires.org

Program Resources



FIRST Tech Challenge Website



Event Search



Game and Season Resources



FIRST Tech Challenge Blog



Volunteer Resources



Team Email Blasts

Feedback

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