



Training and
Support

2018-2019 *FIRST*[®] Tech Challenge Pit Administrator Manual

ROVER RUCKUS



Presented By **Qualcomm**

www.firstinspires.org

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FOR INSPIRATION & RECOGNITION OF SCIENCE & TECHNOLOGY

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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 5,500 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		
Revision	Date	Description
1	7/11/2018	Initial Release
1.1	11/12/2018	<ul style="list-style-type: none"> • Language added for Engineering Notebook Collection. • Updated Tournament Org Charts • Minor formatting changes throughout document. • Appendix A – Update to on call event support line to include scoring system support.

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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. To learn more about FIRST® Tech Challenge and other FIRST® Programs, visit www.firstinspires.org.

FIRST Core Values

We express the FIRST® philosophies of *Gracious Professionalism®* and *Coopertition®* through our Core Values:

- **Discovery:** *We explore new skills and ideas.*
- **Innovation:** *We use creativity and persistence to solve problems.*
- **Impact:** *We apply what we learn to improve our world.*
- **Inclusion:** *We respect each other and embrace our differences.*
- **Teamwork:** *We are stronger when we work together.*
- **Fun:** *We enjoy and celebrate what we do!*

Gracious Professionalism®

FIRST® uses this term to describe our programs' intent and *Gracious Professionalism®* is not clearly defined for a reason. It has different meanings to everyone. Some possible meanings of *Gracious Professionalism* include:

- Gracious attitudes and behaviors are win-win.
- Gracious folks respect others and let that respect show in their actions.
- Gracious Professionals make valued contributions in a way that is pleasing to others and to themselves.

In the end, *Gracious Professionalism®* is part of everyday life. When professionals use their knowledge graciously and individuals act with integrity and sensitivity, everyone wins, and society benefits.

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

Gracious Professionalism for Volunteers

It is a good idea to spend time going over this concept with volunteers. Provide volunteers with real-life examples of *Gracious Professionalism* in practice before, during, and after the event and recognize great *Gracious Professionalism* when you see it in action!

FIRST Volunteer Rights and Responsibilities

NOTICE OF NON-DISCRIMINATION

For Inspiration and Recognition of Science and Technology (FIRST®) does not discriminate based on race, color, national origin, sex, disability, age, status as a veteran who served in the military, religion, gender, gender identity, or gender expression in its programs and activities.

Keep updated at: <http://www.firstinspires.org/about/legal-notices>

Volunteer Rights and Responsibilities

Volunteers are the most valuable asset to FIRST®. Your selfless contribution of time and resources are instrumental in accomplishing our mission of inspiring the next generation of science, technology, engineering, and mathematics leaders and innovators. The foundation of the relationship between FIRST and our volunteers is respect.

It is your right to:

- Be treated with *Gracious Professionalism*®. *Gracious Professionalism* is a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community.
- Feel valued. FIRST recognizes the significant efforts that volunteers contribute. The time that you donate not only helps FIRST succeed but also builds the FIRST community.
- Understand your role. FIRST will inform you about what's expected of you, your schedule, any meals you will be provided, any changes to program or policy, and who to contact should you need assistance.
- Expect a safe environment. FIRST strives to create and maintain a safe environment for all volunteers and participants and will always factor safety into program planning.
- Receive fair treatment and inclusion. All volunteers will be treated with respect and dignity in inclusive environments. FIRST does not discriminate on the basis of race, color, national origin, sex, disability, age, status as a veteran who served in the military, religion, sexuality, gender, gender identity, or gender expression in its programs and activities.
- Reevaluate your time commitment. FIRST appreciates all of our volunteers and understands that volunteers experience life situations that may affect their commitment.
- Communicate with your Volunteer Coordinator or your local FIRST leadership about:
 - Concerns or limitations that are affecting your volunteer role.
 - Any mistreatment towards you or others. You may be required to fill out a [non-medical incident form](#).
 - Contact FIRST Headquarters directly if you feel that you are being treated improperly and attempts to resolve issues and conflicts at the local level are not successful. Volunteers can call (800) 871-8326 or email volunteer@firstinspires.org.

It is your responsibility to:

- Treat others with *Gracious Professionalism*.
- Follow the schedule and the role description provided for your position. Contact your local FIRST leadership if there are any issues.
- Respect others, treat them fairly and kindly. Be inclusive and follow the non-discrimination policy of FIRST.
- Follow safety rules and ensure safety of others. Adhere to all [FIRST Youth Protection Program \(YPP\) policies](#). Report any injuries or safety concerns within 48 hours.
- Adhere to the [FIRST Code of Conduct](#).
- Have FUN!

Tournament Organization Structure

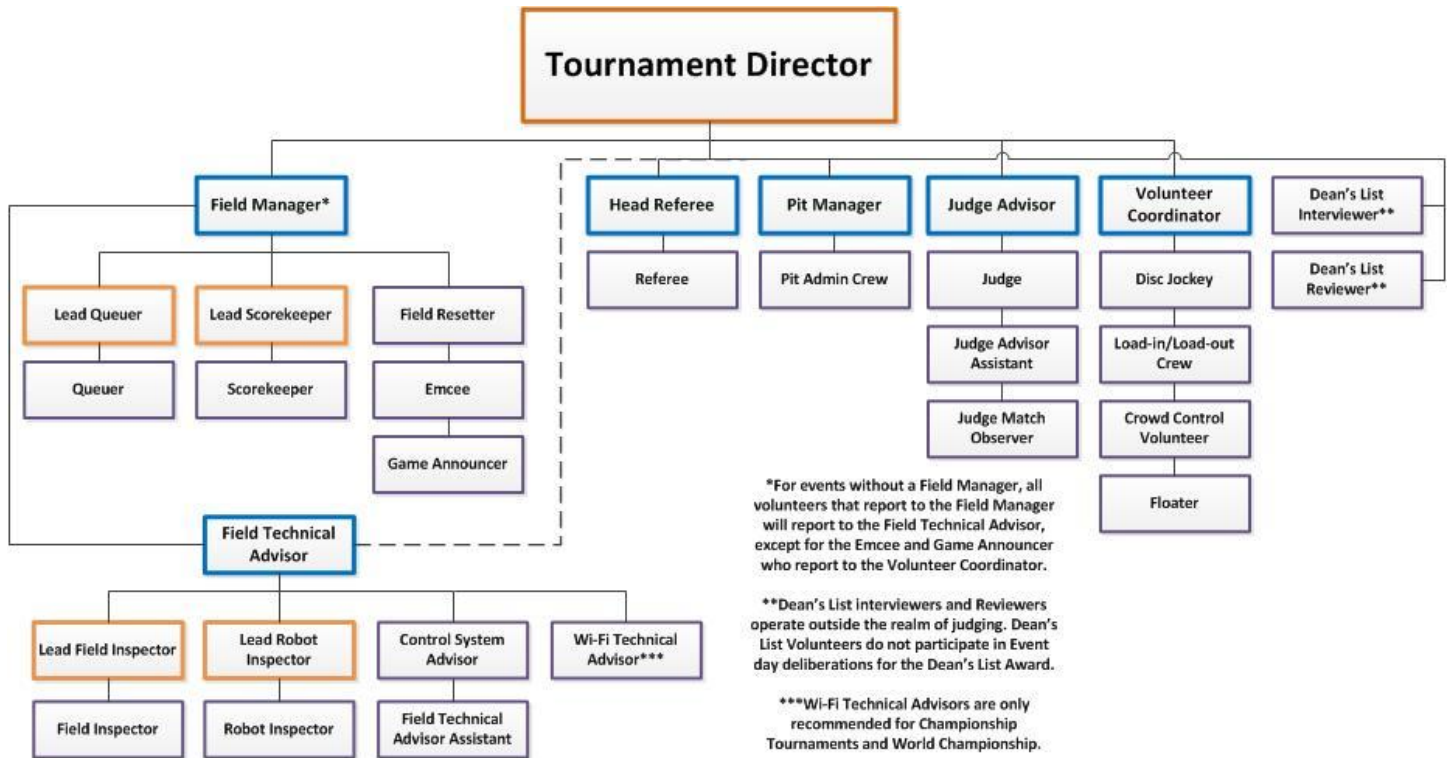


Figure 1 - League Championship, Qualifying Tournament, Championship Tournament Organization

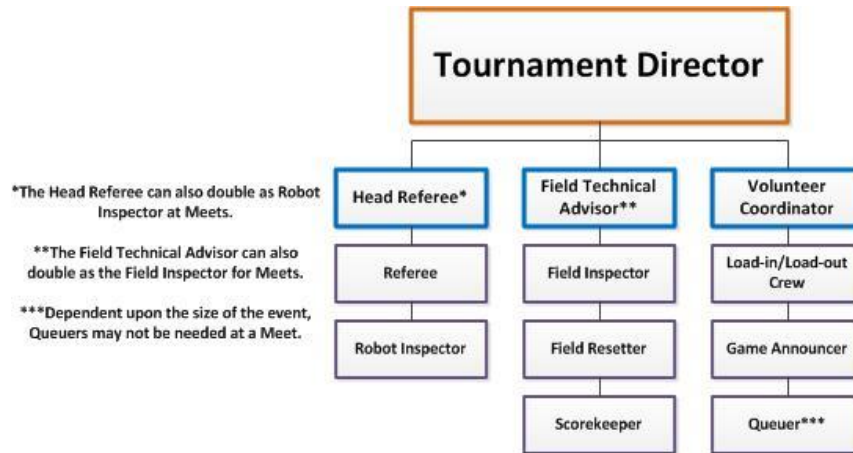


Figure 2 - League Meet Organization

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

Job Description

- **Physical/Technical Requirements:**
 - Technical – Low
 - Physical – Low
 - Administrative – High
 - Communication – High
- **Time commitment:** Additional 3-4 hours on top of the event day.
 - Set-up (*The main pit administration volunteers are usually the one of the first volunteers onsite to help set up the pit administration area*).
 - During event
 - Tear-Down
- Proper Attire:
 - Wear comfortable shoes, most of the day you will be on your feet.
 - ANSI Z87.1 certified safety glasses are required in the pit area.

Volunteer Training and Certification

Volunteers must apply to their role using the [Volunteer Registration System](#). After the volunteer has applied to their role, FIRST Tech Challenge will send an email to the volunteer with access instructions to training and certifications (if applicable). Emails with access to the training and certifications will be sent within one business day from applying to the role. If you have applied for a role but have not received access to the training, please email FTCTrainingSupport@firstinspires.org.

The Pit Administration volunteer should read this manual prior to the event. She/he should also speak to the Event Director or Affiliate Partner to determine if there are any additional requirements, such as meetings prior to the event or run-throughs of the queuing path before the event. The approximate training time is one hour.

Volunteer Minimum Age Requirement

FIRST requires that FIRST event volunteers be at least 13 years old, however, the Regional Planning Committee can *increase* the age requirement as needed. Adult volunteers cannot have children with them while volunteering nor be responsible for supervising children at the event. Children under the minimum age are welcome at FIRST competitions with suitable supervision by someone other than a volunteer.

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 head first, 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!

Overview of Responsibilities

Pit Administration volunteers are a vital role at an event. Since they are stationed right in the team pit area, they end up fielding many questions throughout the day from teams, mentors/coaches and spectators. Responsibilities of the Pit Administration volunteers may vary from region to region, so it is important to check with the Tournament Director about specific responsibilities on event day. At minimum, this will include:

- Greeting teams as they arrive at the event.
- Collecting Consent and Release forms and team rosters (*if also in charge with team registration*).
- Incident reporting – medical and non-medical.
- Collect/Return Lost and Found items.
- Setup and breakdown of pit area.
- Assistance with general inquiries from teams, coaches/mentors and spectators.
- Collecting engineering notebooks (at some events)

Pre-Event Day Responsibilities

To prepare for the event, make sure to speak with the Tournament Director to see if there are administrative duties that will need to be completed. Printing required forms, putting together team registration packets, or putting necessary paperwork into a file box are ways to help prepare for the event.

Pit Admiration (Pit Admin) Setup Recommendations

FIRST Tech Challenge events are held in many different venues, from school auditoriums to large function halls. The Tournament Director will help determine the best place for the Pit Administration table to be located. Since this may change from event to event, there are other ways to prepare for the event.

File box

Having a file box ready with all necessary paperwork will help keep Pit Administration volunteer organized and help with the flow at check-in. We recommend having the below items in a file box at the event.

- Teams Roster (*teams competing that day*)
- Blank Consent and Release forms*
- Medical Incident Reporting Forms*
- Non-Medical Incident Reporting Forms*
- Lost items forms
- One-page Game Overview
- Walk-on Volunteer Policy & Form

These items will be needed to printed. Make sure to check with the Tournament Director to see who/when these items will be printed.

*Please download the most current versions of these documents here: <http://www.firstinspires.org/node/3861>

If available from the Tournament Director make sure to also have:

- Pit Maps
- Event Day schedule

Event Layout

Since the Pit Admin table is in the team pit area, there will be many questions from teams, coaches/mentors and spectators about where different aspects of the event are taking place. A team may not know where they need to go for their robot inspection; likewise, a coach/mentor may need to know how to direct the team to their judging session. Knowing the general event layout, and understanding what is happening in different areas of the competition will help the Pit Admin volunteers quickly respond to any of these inquiries. This in turn will help keep the overall event running on schedule.

Plan to get to the event early to locate:

- Where judging sessions are held.
- Where robot inspections are being held.
- Where the drivers meeting will be held.
- Queuing paths for teams.
- When lunch will be held, and where to pick up food (*if applicable*).
- Where workshops are being held (*if there are any at the event*).
- Where opening, closing, and awards ceremonies will be held.

Having a pit map showing where each team is located will be helpful throughout the event day.

Whether a team is trying to locate an alliance partner, or a family member is looking for a team, it is helpful to know the pit layout to send them in the right direction.



Guidelines for Lost Children

FIRST Tech Challenge events can be very hectic, as there are many different parts of the event happening all at once (i.e. judging interviews, robot inspections). It can be easy for a child to get lost amongst the shuffle of a busy event. It is important to talk with the Tournament Director prior to the event to come up with an action plan in the instance of a lost child. There are online resources available to help in creating an action plan.

If anyone comes across a child that appears to be lost:

http://www.missingkids.com/en_US/publications/PDF15A.pdf

Code Adam Guidelines: <http://www.missingkids.com/CodeAdam>

Collecting phone numbers from each coach will also be helpful if a child becomes separated from their team. This information should be on the team roster. The coach/mentor's contact information, preferably a cell phone, should be easily locatable and can be used if the Pit Admin is approached by a child who is unable to locate their team.

Emergency Response Plan

Speak with the Tournament Director about putting together an emergency response plan. These are venue specific. Having a plan in place will ensure volunteers are prepared in the case of an emergency and can substantially decrease the number of injuries if an emergency arises. Included in the plan should be topics such as:

- A map of all the emergency exits
- Action plan in the case of severe weather
- 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. There are many resources available online to help create a plan, from tips to templates that can be followed.

Event Day Responsibilities

Consent and Release Forms

A consent and release form must be completed by every student, coach/mentor, and volunteer. If team registration and/or volunteer registration are one of the responsibilities for Pit Administration volunteers, they need to make sure that EVERY student, coach/mentor, and volunteer has provided an accepted form electronically or by hard copy.

Team Consent and Release Forms

Review the team roster provided by the coach/mentor of the team. Make sure the person checking the team in is an adult team coach/mentor and not a student. The consent form status column on the team roster will indicate that the consent form is either accepted or incomplete for student team members.

- The column marked with a green checkmark indicates that the form is complete. This means that the parent/legal guardian of the student team member has signed the Consent and Release form electronically. If this is the case, there is no need to collect a hard copy from the team member(s).
- If the Consent and Release form status column contains a red "X", the Consent and Release form is incomplete. Please be sure to collect a completed hard copy from the student.
- Please be sure to do the following:
 - Collect the forms during team check-in and check that they are complete.
 - They must include a signature from a parent/legal guardian (if student is under eighteen) and a team number.
 - Staple the hard copy to the team roster.
- There is an area on the team roster called "Additional Members", in which the hard copy submitter's information will be written by the team mentor(s).

YOUTH TEAM MEMBERS					
	Role	Youth Name	Parent/Guardian Name	Application Status	Consent Form
	Student	John Smith	STIMS Parents	Accepted	✓
	Student	Jane Smith	STIMS Parents	Applied	✗
ADDITIONAL MEMBERS (WRITE-IN)					
	Role	Name	Other Information		

A team might say that their team Consent and Release forms are coming late with other coaches/mentors on their team. Or a team member may also say he/she submitted electronically but they do not show up on the team roster as “accepted”. In these instances, do the following:

- Provide them with the registration packet (if applicable) -- **Do not hand over the Driver/Coach Badges.** Explain to the team that the team roster and all Consent and Release Forms must be received before the team can compete.
- If the team left the team roster and/or hard copy of the Consent and Release Forms at home, they should:
 - Arrange to have them faxed (if available) to the event site and originals mailed to *FIRST* right away. Speak with the Event Director or Affiliate Partner regarding process and contact information.
 - OR handwrite the Team Roster and have the team complete blank Consent and Release forms for each student and adult team member.
- Find blank forms in the file box and provide blank forms for all adults to fill out on site. Students under 18 need a form signed by a parent/legal guardian. Do not accept the signature of a mentor on a student form. Mentors must have parents/legal guardians provide completed forms to them prior to receiving the Driver/Coach Badges.

To summarize, any team member that does not have a properly signed form cannot compete and cannot be on the playing field. Adults and adult students can execute a hard copy on site and submit that copy. If a non-adult (under 18) student has not submitted a form, have their parent/guardian complete one on site or one cannot be faxed (if applicable) to the event site to allow for his/her participation, the team coach/mentor will need to make appropriate arrangements for the student(s). These arrangements could include providing transportation for the student(s) home, or accommodations in stands to watch as a spectator until a completed form can be provided. These are just examples that can be shared with the team coach/mentor, but it is the responsibility of the team coach/mentor to resolve the situation. If there are any disputes, call the Tournament Director or Affiliate Partner for assistance. These documents should be handed in to the Tournament Director once the event is over.

Volunteer Consent and Release Forms

Each volunteer participating in the event must submit a Consent and Release Form. Use an attendance checklist (provided by the Tournament Director if available) to ensure that each volunteer has accepted the Consent and Release forms. If this is listed as “Incomplete”, provide a blank form. If the volunteer is under 18, they must have a parent/legal guardian complete this form before they can volunteer.

Attendance Checklist

First Name	Role	Shadow/Trainee	Shirt Size	Certification Required	Passed Certification	Consent and Release
	Event Custom Role	No	L	No		Accepted
	Scorekeeper	No	L	No		Accepted
	Event Custom Role	No	XL	No		Incomplete
	Event Custom	No	XL	No		Incomplete

Engineering Notebook Collection

At some events, engineering notebooks are collected at Pit Admin. Pit Admin should check engineering notebooks as they are collected to confirm that:

- The team has put their team number on the outside, front cover of the engineering notebook
- The team summary page is either attached to the front cover, or is within the first 3 pages of the engineering notebook.

If a team is missing either of these things, please give the notebook back to the team, tell them what is missing, and allow the team the opportunity to correct their notebook so the basic notebook requirements are met.

Medical Incident Reporting Procedure

Should an incident or illness occur at an event, 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 and an incident report.
- Complete the incident report for the injured party.
- Give the completed form to the Tournament Director so he/she can fax it to *FIRST*. The fax number is located on the bottom of the Medical Incident form.

Pit Administration volunteers will be the incident reporting person and will be responsible for completing incident reports. It is important to be available within the pit area during the periods the event is open to the teams, volunteers, and the public. Designate another trained volunteer to be the incident reporting person if at any time the Pit Administration volunteers must leave the pit area.

The incident reporting person should:

- Be calm in an emergency and can talk to witnesses without assessing fault. Can communicate with the insurance company if necessary.
- Have clear, legible handwriting when filling out the form. Fill it out completely.

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.

Important: In all conversations with the injured, witnesses, spectators, and media always say “the incident is being investigated” without any further comment. Do not imply liability or any payment, as no one knows for sure until all the facts are known.

Non-Medical Incident Reporting Procedure

Report anything that happens during an event that should receive attention because it made a volunteer, team member or spectator feel uncomfortable or threatened. If anyone states that they feel threatened because of verbal abuse, inappropriate contact, or other negative behaviors, speak up and volunteer to fill out a report with that person.

Call the Affiliate Partner or Tournament Director if a situation arises that involves harassment or a threatening situation. He/she will provide guidance.



Safety Glasses

All volunteers, teams, coach/mentors, and spectators are required to have safety glasses while in the pit area. Safety glasses must be worn always because teams use pit spaces to work on their robots during the competition. It is important to watch for anyone entering the pit area without safety glasses, and to ask that they not enter the pit area. 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.

Speak with the Tournament Director to determine if there will be spare safety glasses on event day. If not, come up with some talking points for those who try to enter the pit area without them. Redirect them to the competition area where the action is happening or point them to other activities that are happening at the event.

Practice Fields

Many events will have a field set up in the pit area to practice prior to qualification matches. This gives a team the opportunity to make tweaks to their robot prior to competing. Work with the Tournament Director to determine if the event will have practice fields, and how they will be run. Most events will run the practice fields on a first-come, first-served basis. If there will be practice fields, print out a sign-up sheet prior to the event. These matches may be scored, but these scores do not affect overall team rankings.

If you are volunteering at a multi-day event, consider closing the practice fields 15 minutes before the pit area closes. This encourages teams to leave and pack up for the day.

Pit Announcements

At some events, there may be a PA system set up to allow the Pit Administration volunteers make important announcements to teams in the pit area. This is a great way to be able to communicate with teams when matches end and lunch begins, a reminder when matches are resuming, or if matches are running behind schedule. This is a great tool to use to keep the teams informed, however refrain from using a PA system for:

- Birthday Announcements
- Lost and found items

- Thank You's (sponsors should always be thanked in either opening or closing ceremonies)

If there are too many announcements throughout the day, teams will eventually tune out the announcements, and therefore may miss a vital announcement later in the day.

End of the Day

Since Pit Admin at most events is where lost and found items are kept, try to match up the lost items with its owner. Take inventory of what has been turned in and try to match items with lost items sheets that have been filled out throughout the day. Any items not claimed should be given to the Tournament Director.

Once qualification matches are completed, and alliance selection has taken place, teams will often begin to tear down their pit areas. The pit volunteers can begin to tear down their area at this time. Make sure to pack completed consent and release forms into the file box and return these to the Tournament Director. Speak with the Tournament Director prior to leaving for the day to let them know the location of all the team rosters and Consent and Release forms.



At the end of the day, walk away from the event knowing you have done your absolute best to ensure that the event ran smoothly, and teams had a positive experience.

Appendix A – Resources

Game Forum Q&A

<http://ftcforum.usfirst.org/forum.php>

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 User Name and Password for your team.

Volunteers that apply for a specific volunteer role will receive an email from FTCTrainingSupport@firstinspires.org with their username and password to the forum. 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 EDT

Email: firsttechchallenge@firstinspires.org

FIRST Tech Challenge Event On-Call Support

*These numbers are 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 homepage – www.firstinspires.org

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

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

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

FIRST Tech Challenge Social Media

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

[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, including Outstanding Volunteer Recognition!

[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 firsttechchallenge@firstinspires.org. Thank you!