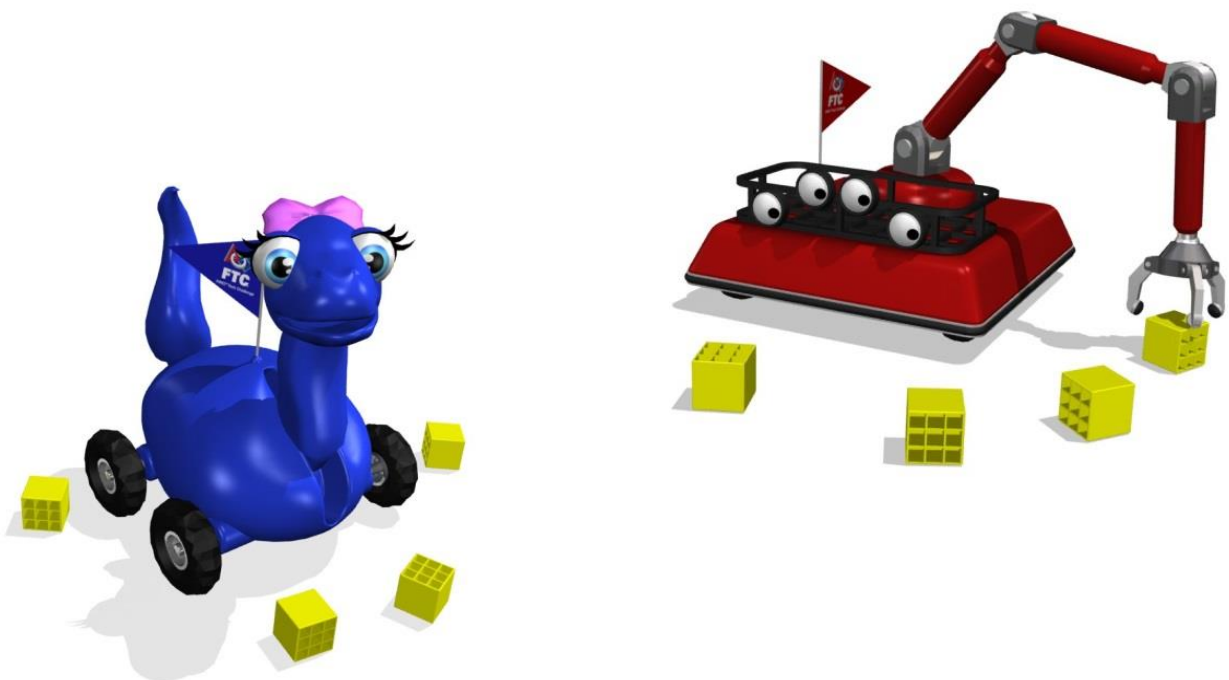


2013-2014 FTC BLOCK PARTY!sm

Field Manager Manual



Note: This manual is solely for the training of Field Managers. Any other uses or distributions, including to other Volunteers, Coaches, or Teams is a violation of the Core Values of *FIRST*.

****Important Safety Update****

Volunteers should stay out of the plane of an over-tensioned flag assembly. If the flag is over-tensioned, the field area should be cleared and an adult should attempt to clear the robot and manually crank the flag (being mindful that the handle might slip and release a lot of tension at once).

Thank you

Thank you for taking the time to volunteer for a *FIRST* Tech Challenge Event. *FIRST* and FTC 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 3,000 Teams competing annually, your dedication and commitment are paramount to the success of each Event and the FTC program. Thank you for your time and effort in supporting the mission of *FIRST*!

| Revision History | | |
|-------------------------|-------------|---|
| Revision | Date | Description |
| 1 | 9/30/2013 | Initial Release |
| 1.1 | 10/3/2013 | Important Safety Update/Forum instructions |
| 1.2 | 10/7/2013 | Added <i>Gracious Professionalism™</i> Video link to Appendix A |
| 1.3 | 10/18/2013 | Added link to Training Video in Appendix A |

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1. Introduction

The Field Manager (FM) and Field Technical Advisor (FTA) work together to keep the areas in and around the Robot Playing Fields running smoothly. The FTA concentrates on the technical issues (Robots, Field Control System, Scoring Software, etc.) and the FM is responsible for operational activities (Team Queuing, Playing Field Reset, etc.). While some smaller Events combine the Field Technical Advisor and Field Manager responsibilities, having separate Volunteers for each role will keep the workload manageable for each Volunteer and is recommended by *FIRST*.

FIRST Tech Challenge Tournaments squeeze a lot of activity into one day. One of the keys 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.

2. Field Manager Role Description

The Field Manager role is comparable to the conductor of a symphony orchestra. They are responsible for directing the flow of activities of groups of Volunteers; each group performs a specialized task in coordination with other groups, and one group's misstep will disrupt the rhythm of the entire Competition. The goal for the Competition area Volunteers is to stay within +/- one Match of the published Match schedule. If the Matches run +/- two Matches, it is time to look for ways to speed up or slow down Matches so that the Tournament returns to a rhythm of +/- one Match. The FM empowers the Volunteers to track the schedule, work together to make adjustments, and help the Competition run at the rhythm of the Match schedule.

Generally, anyone with good people and organization skills can serve as a Field Manager. However, a well-rounded FM will have the following attributes:

- The FM should be someone with high energy. The FM will do a lot of walking around the Competition area, conversing with Teams and Volunteers, and helping with Event load-in and load-out.
- An experienced leader that is able to lead Volunteers of all ages;
- An empathetic and patient person to work with still-maturing youth or a disgruntled Mentor to explain an issue, and work with them to solve the problem during what can be a rather exasperating time; and
- A cheerleader for Teams and fellow Volunteers.

3. Field Manager Organizational Chart

The Field Manager works closely with the Field Tech Advisor and, in some cases, those roles are held by the same person (although *FIRST* recommends keeping them separate). The Field Manager reports to the Tournament Director.

Volunteers that report to the Field Manager are the Field Technical Advisor, Lead Queuer, Head Scorekeeper, and Field Resetters. While the Referees, Emcee, and Game Announcer do not report to the Field Manager, the Field Manager will need to work closely with these Volunteers in order to keep the Match schedule running smoothly. Refer to the Organizational Chart below for the relationship between roles and Volunteer reporting at Tournaments.

Suggested Tournament Organizational Chart



4. Field Manager Responsibilities

The Field Manager is responsible for all activities in and around the Robot Playing Fields, including:

- Competition Playing Field set-up and tear down. This does not include responsibility for the Field Control System electronics.
- Keeping the Robot Matches on schedule.
- Ensuring the Playing Field is set up for each Match.
- Repairing Playing Field Game Elements.
- Managing a safe environment, including:
 - Everyone is wearing safety glasses;
 - No running;
 - Robots are operating safely; and
 - Cables remain taped down.
- The flow of activity in and around the Robot Playing Fields. This includes Referees, Field Control System Operators, Scorekeepers, Field Reset Attendants, Queuers, Teams, Game Announcers, etc.
- Assuring that Volunteers have the resources they need and receive breaks.

The FM is NOT responsible for:

- Interpreting Game or Robot rules.
- Refereeing or Judging.
- Repairing Robots.
- Explaining their actions, Field Technical Advisor actions, Referee decisions, Game play, Game rules, Robot rules, etc. to Coaches, Mentors, parents, grandparents, etc.
- Helping Teams with detailed Robot debugging. This is a sure way causing a Tournament to run behind schedule.

5. Field Manager Pre-Tournament Responsibilities

It is important prior to the Event that the Field Manager reviews the FM Manual. While Field Managers are Key Volunteers and are not required to pass a *FIRST* certification test in order to fill this role at an Event, they must possess certain knowledge and skill sets in order to be successful.

The FM plays a key role in assuring that Robot Matches runs smoothly and completing the tasks on the following checklist will help assure a fun and successful Tournament day.

- Watch the Game animation on the *FIRST* Tech Challenge website (www.usfirst.org/ftc/game). Focus on understanding what the Teams are trying to accomplish during a Match and the names of the Playing Field Elements.
- Download the *Game Manual Part 1* and read Section 3, The Tournament and become familiar with the Tournament terminology and structure. It would be beneficial to also read Section 5 for the Robot construction rules and the *Game Manual Part 2* to learn the Game rules.
- Read this manual thoroughly.
- Read the *Playing Field Build Guide*
- Read the *Playing Field Set-Up Guide*
- One or more weeks prior to Tournament day, verify that the Competition Playing Fields have been constructed in compliance with the *Playing Field Build Guide* and the *Playing Field Set-Up Guide*.
- The FM should work with the Tournament Director to create a site plan for the Competition area. Verify that the tables, chairs, power extension cords, audio-visual equipment, etc. have been reserved for Tournament day.

6. Field Manager Tournament Responsibilities

6.1. *Tournament Set-Up Day Checklist for the Field Manager*

- Dress for the day includes a pair of safety glasses which are required around the Competition Playing Fields and in the Pit areas, comfortable clothing that will allow you to move easily, and closed-toed shoes that will not harm the foam Playing Field floor covering.

- Tournament set-up generally occurs the day before the Competition. Setting up the Competition area and testing the electronics should take two to three hours for a single field Tournament and three to four hours for a two-field Tournament. The FM is responsible for setting up the Competition area as specified in the site plan, including:
 - The Playing Field(s)
 - Field Control System Operator’s table
 - Scorekeeper’s table
 - Queuing tables
 - Crowd control stations(if applicable)
 - Oversee the installation of the sound, video, and lighting systems
- The FM will work with the FTA and a team of Volunteers to set up and test the Competition Playing Field(s) and the Practice Field(s). The FM should verify that the Fields are set up as instructed by the *Playing Field Build Guide* and the *Playing Field Set-Up Guide* and then the Field Electronics System can be installed by the FTA. The Playing Field section of this manual contains additional information pertaining to Playing Field set-up, reset between Matches, and repair.

6.2. Tournament Day Checklist for the Field Manager

- Arrive early; the Field Manager should be one of the first Volunteers to arrive on Tournament day.
- Assure that the Competition area is ready for Volunteers and Teams. Look for safety hazards, make sure cables are taped down, clean up trash, pick up tools that may have been left behind, etc.
- Check-in with the following Volunteers:
 - FTA – Has the Field Electronics System been tested and is it ready for Software Inspection and Practice Matches?
 - Scorekeeper – Has the Scoring System been tested and have the Teams, sponsors, etc. been inputted?
 - Audio Crew – Has the sound system been tested? Has a sound check been performed with the microphones?
 - Video Crew – Has the video system been tested?
- Hold meetings with the Competition area and Pit Queuing teams. This is a good time to test 2-way radios and review the day’s schedule, Queuing procedure, Queuing travel path between the Pit area and the Competition area, etc. Instruct the Queuing Team to bring the Teams participating in the first two Matches of the day for a single Playing Field Event and the Teams for the first four Matches for two Playing Field Events to the Competition area prior to the start of the Opening Ceremony.
- Hold a meeting with the Field Reset crew and review their responsibilities, proper Field Set-up, Robot Match flow, etc.

- Get a copy of the Match schedule with times from the Scorekeeper. The schedule is created by the computer system, but cannot be generated until the Tournament Director has determined all the Teams have checked in for the Competition.
- Attend the Opening Ceremony and be prepared to start the first Match directly following.
- The remainder of the day will be spent overseeing the activities around the Competition Playing Field(s).

6.3 Field Manager Tournament Primary Activities

The FM is more of a manager and observer of the entire Competition area to assure that the flow of activity is going well. The FM doesn't perform the detailed actions of any of the Volunteer roles that he/she supervises. Furthermore, the FM needs to ensure that Referee deliberations, while important, are also brief, and that Game Announcers keep the Matches moving along at an appropriate pace.

Primary activities of the FM include:

- Ensure the flow of the Competition stays on the schedule for the Competition.
 - Referees are working quickly and efficiently;
 - Field Resetters quickly reset the Field;
 - Game Announcers and Emcees keep the Event moving forward; and
 - Queuers deliver Teams to the Field on time.
- Check in with Volunteers to make sure they take breaks and are hydrated.
- Verify that the environment is kept clean and safe.
- Contribute to the sense of fun for the Event.

7. The Playing Field

The FM is responsible for verifying that the Playing Fields are constructed to specification, correctly set up, repaired when needed, and disassembled at the end of the Competition. The FM should bring a tabbed binder containing the following documents to the Competition:

- Playing Field Build Guide*
- Playing Field Set-Up Guide*
- Field Electronics Set-up Guide*
- Game Manual Parts 1 and 2*
- Field Control System User Guide*
- Field Manager Training Manual*
- Field Technical Advisor Training Manual*
- Scorekeeper's Manual*
- Scoring System User's Manual*
- 2013-2014 FTC Legal Parts List*
- Game Q & A Forum Printout (latest version)

These guides and manuals are updated throughout the season. The tabbed binder should contain the latest versions of these documents. A revision history page at the beginning of each document is the key to keeping track of updates. These documents are located on the FTC website (www.usfirst.org/ftc/game) in the “The FTC Game” section.

The Game Q&A Forum is an online community where Teams ask the FTC Game Design Committee questions about the Game. The forum is updated regularly until the Tournament season starts in November. Once Tournaments start, the Forum is updated Sunday through Thursday at 12:00 p.m. Eastern time. Game Design Committee posts to this Forum are enforceable rules or guidance that carry the same weight as the information contained in the guides and manuals. The FM should obtain a printout of the forum on the Thursday before the Competition. *FIRST* posts a PDF format copy of the Q&A Forum on the www.usfirst.org web site Thursday afternoon before every Tournament weekend. Please reference Appendix A and B of this document for a link to the forum as well as detailed instructions to sign into the forum.

7.1. Field Set-Up

Playing Field construction should start a month or more before the first Event of the season. The Field Manager is responsible for verifying that the Playing Fields meet the specifications in the *Playing Field Build Guide*, the *Playing Field Set-Up Guide*, and in the *Game Manual Part 1 and 2*. Initial Playing Field verification should be completed one week or more prior to Competition day. Set up the Playing Fields the day before the Competition. Set-up should take approximately two hours per field depending on the complexity of the Game Elements; this time will get shorter with experience.

7.2. Field Repair

Tools, spare parts, and repair materials should be on-hand should the Playing Field or Field Elements are damaged. Spare parts are Game-dependent and will vary from year to year. A Field Manager’s tool kit should generally contain:

| | |
|---|---|
| Flashlight | Pliers |
| Tape measure | Diagonal cutting pliers |
| Multi-meter | Utility knife |
| Hex key set (English) | Gaffer’s tape |
| Adjustable wrench | Duct tape |
| Phillips screwdriver | Cable ties (zip ties) – various sizes |
| Slotted screwdriver | Assortment of fasteners |
| Scissors | Rubber bands |
| Drill bits for Field assembly - 5/32 hex - Phillips and slotted | Safety glasses or side shields for prescription glasses |
| All-purpose drill bit set | Cordless drill |

7.3. Field Reset

Field Reset starts when Referees finish scoring a Match and ends when Teams, Robots, Referees, etc. are on station for the next Match. Efficient flow of action during Field Reset is critical to keeping the Competition running on schedule. The FM should pay close attention to the following:

- Teams quickly remove their Robots from the Playing Field area after the Referees have given the teams a clear the Field signal.
- Field Reset Volunteers restore the Playing Field to its starting condition.
- On-deck Teams quickly set-up their Robots on the Playing Field after reset is complete.
- The Head Referee verifies that the Playing Field is in the correct starting configuration.
- The FTA and/or his designee perform a quick visual check of the Field Control System computer and Robots to assure they are good to go. Items to look for on the FCS computer display are presented in the FTA Manual.
- The Game Announcer, Referees, and FTA should be on station and ready to start the Match.

8. End of the Day

At the end of the day, walk away from the Tournament knowing you have done your absolute best to ensure that the Competition was fair for all Teams. This is the ultimate goal of the Field Manager positions. As long as the winner of the Tournament can say that they've won fair and square, your job is done!

9. **Appendix A – Resources and Certifications**

Training Video Link – <https://usfirst.box.com/s/fvmo18nrgevennu1npp5>

Certifications – Certification is not required for this role

Game Forum Q&A - <http://ftcforum.usfirst.org/forum.php>

Volunteer Forum-In order to access the Volunteer Forum, you must register through the Game forum page. Please see Appendix B for instructions. The Volunteer Forum allows you to ask other Volunteers questions or share tips and best practices.

Game Manuals – Part 1 and 2 - <http://www.usfirst.org/roboticsprograms/ftc/game>

Monthly Discussion Calls- Currently we do not have a scheduled monthly discussion call for this role. If you would like to have a call set up to talk with other Field Managers about tips and best practices, please post your interest to the Volunteer Forum.

FIRST Headquarters Support

Phone support is provided throughout the Event season Friday through Sunday. If you are Volunteering at an Event and need immediate assistance, please use the following number:

Phone: 603-206-2412

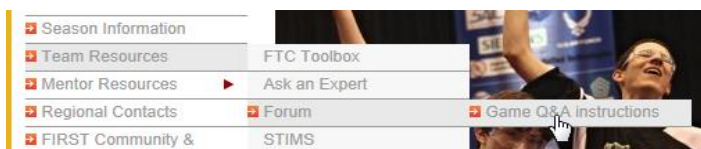
Email: FTCTeams@usfirst.org

Gracious Professionalism Video - <https://usfirst.box.com/s/hupdkypes5ph379a99be>

10. Appendix B - FTC Volunteer Forum Registration Instructions

FTC Staff manually moderates the forums in order to weed out spam bots. We use various sections of the registration information (Location, Role, and Team Number) to help us decide that you aren't a bot spamming our account. We do this daily, so you will get a quick response once you submit your registration. Here's how you successfully register without being mistaken for a spam bot:

Go to the forum: Ftcforum.usfirst.org/forum.php You can get there by clicking on FTC at the usfirst.org website, hovering over "Team resources" (in the left column), and selecting "forum".



Click the Forum Link. You will then see the following page, in which you should click "Register" at the upper right-hand corner of the page.



On the registration page fill out your full name, email address, and create a password. You will also be asked a question. The question field is one of the tools we use to weed out spammers, but if you do not know the answer, click your browser's refresh button and fill in the fields again and a new random question should appear.

The following fields must be entered as stated in this manual in order to be granted access to the forum:

- In the Location field, type **the city and state that you will be volunteering in**, i.e.: Manchester, NH
- In the Team Role field, type **the position you will hold at that event**, i.e.: Field Tech Advisor
- In the Team Number field, type **Event Volunteer** (the field will only permit Event Vo, but that works)

The last fields are optional, however you must check the box that says **"I have read, and agree to abide by the FTC Forum rules."**

Once all of these steps have been completed, click "Complete Registration". You will then receive an email from FTC Forums to complete the registration. Click the link in the email, and follow the instructions. This will activate your account, however you will still need to be granted access which is done manually.

Within one business day, you'll receive an email from our forum welcoming you officially. Now you will be able to post in the various forums, and you will see the Volunteer forums.

Use the Ask the Game Design Committee threads to post questions you would like the game design committee or FTC staff to answer.

Use the Best Practices threads to talk to other volunteers about your questions and experiences.