FIRST® GAME CHANGERS™ powered by Star Wars: Force for Change

2020-2021 FIRST® Tech Challenge

FTC Scoring System – PDP Guide
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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!

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

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.

Learn more about the roles of volunteers on our Volunteer Resources page, “Volunteer Role Descriptions”.

FTC Scoring Cloud-Based System

For the 2020-2021 a new cloud-based (i.e., Internet-hosted) scoring system is available for Program Deliver Partners (PDPs) to help manage and score their events. The cloud-based system is known as the FTC Scoring system. FTC Scoring system is used to configure and manage both remote and traditional (in-person) events.

This document explains how to configure and manage a remote event using the FTC Scoring system. And how to configure a traditional event in FTC Scoring to be manged in FTC Live by the scorekeeper.

FTC Scoring System Workflow

Before covering the details of how to use the FTC Scoring system, it is helpful to examine the workflow for managing events. Figure 1 (see page 6) is a workflow diagram for using the FTC Scoring system to manage remote and traditional events.

Regardless of whether or not an event is remote or traditional (in-person), a PDP should begin the process by providing their designated FIRST staff member with event details including the name of the event, the date of the event, whether or not the event is remote or traditional, and what type of event it will be (scrimmage, league meet or tournament, qualifying tournament, etc.).

The designated FIRST staff member will enter the event details into the official FIRST IT system (TARDIS). Event information will then be automatically synchronized with the FTC Scoring system daily.

The PDP or their designated regional administrator will then login to the FTC Scoring system and find the event in a list of events for their region. The administrator will configure the event in the FTC Scoring system and add/edit the list of teams participating in that event. The next step will depend upon whether the event is remote or traditional:
If the event is remote, the administrator will also define the event submission window. Once this information has been entered, during the active submission time period, teams will login to the FTC Scoring system and score their matches by themselves remotely. Authorized event volunteers can enter in awards information for the remote event. When the submission window has closed, the event admin will review and then publish the event results to the ftc-events.firstinspires.org website.

If the event is traditional, instead of scoring the match using the cloud-based FTC Scoring system, the event’s data is transferred to a laptop that is running the current FTC Live scoring software. A volunteer scorekeeper will use this laptop to schedule and manage the in-person matches. Volunteer referees will enter in match scores to the server running on the scorekeeper laptop during the in-person event. A volunteer judge at the event (or the scorekeeper) will enter in awards information to the FTC Live server that is running on the scorekeeper’s laptop. Once the traditional event is complete, the scorekeeper will connect the laptop to the Internet. The scorekeeper will then push the “Send Results to FIRST” button in the FTC Live software to push the event results to the ftc-events.firstinspires.org website.

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FTC Scoring – Workflow Chart

PDP provides FIRST staff with event details.

FIRST staff enters event details into TARDIS.

FTC Scoring system synchronizes event database from TARDIS.

PDP finds & configures event in FTC Scoring system (adds teams, defines submission windows if remote, etc.).

Is this event remote?

No

Event data transferred to FTC Live software running on scorekeeper laptop.

Yes

Teams use FTC Scoring system to score their remote matches.

For tournaments / championships, an authorized volunteer uses FTC Scoring system to enter in award results.

PDP closes remote event and publishes results to ftc-events.firstinspires.org.

Scorekeeper and referees record the match scores to the FTC Live server running on the scorekeeper laptop.

For tournaments / championships, at the in-person event, an authorized volunteer enters in award results to the FTC Live laptop.

After event is complete, scorekeeper connects FTC Live laptop to Internet and the results are published to ftc-events.firstinspires.org.

FIRST community visits ftc-events.firstinspires.org website to browse remote and traditional event results (match scores, rankings, awards, etc.).

Figure 1 - FTC Scoring workflow (remote and traditional events).
Accessing the System

The FTC Scoring system is integrated with the firstinspires.org website. In order to be able to access the FTC Scoring system, a PDP must login to their FIRST dashboard account.

1. Visit www.firstinspires.org and select the “LOG IN” link in the upper right-hand corner and log in to your FIRST dashboard account. Once you are logged into your dashboard account, you are also automatically logged into the FTC Scoring system.

2. Type in the address ftc-scoring.firstinspires.org to navigate to the FTC Scoring website.

3. The FTC Scoring system should display information associated with your FIRST dashboard account.
   a. If you are a PDP or a regional administrator, your regions will be listed.
   b. If you are an event administrator, your events will be listed.
   c. If you are a team mentor or administrator, your teams will be listed.
Navigating to Your Landing Page

While logged in to the FTC Scoring system, if you want to return to the main landing page for your account, select the FIRST Tech Challenge logo in the upper left-hand corner to navigate back to this page.

![FIRST Tech Challenge logo](image)

*Figure 4 - Select the FIRST Tech Challenge logo to navigate to the main landing page for your team.*

Managing Your User Account

You can manage your FTC remote user account (change display name, logout, etc.) by selecting the “Hello <USER NAME>” link in the upper right hand corner of the screen.

![Hello FTC Technology link](image)

*Figure 5 - Select this link to manager your FTC remote user account.*

Managing a Region

If you are a PDP or a designated region administrator, you will see a list of your authorized regions on the main landing page. In Figure 3 (see page 7) the user is a region administrator for Illinois (USIL). To view the events that are available for a region, select the region’s link from the list.

![Regions list](image)

*Figure 6 - Select the region for the Regions list to view its events.*
By default, the main region page lists all the events for a region that were listed in the TARDIS information system at the time of the most recent system synchronization.

![region events screenshot]

*Figure 7 - The main page for a region lists all of a region's events that were synchronized from TARDIS.*

The left-hand side of the screen includes a menu of links for the currently selected region.

![region links screenshot]

*Figure 8 - The left-hand side of the screen includes a menu of links for the selected region.*

**Event Page**

Within a selected region, if you select an event from the list on the region's Events page, you will navigate to the event's home page where you can view information about the event and manage (configure) the event.

- Select “Manage Event” to navigate to the event’s dashboard.
- Select “Match List” to view the match list and current match results.

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- Select “Rankings” to view the current team rankings for the event.
- Select “Manage Awards” to manage awards for the event (only available for qualifying and league tournaments, and for championship events).

![USILQT0 Test Qualifier 0](image)

**Figure 9** - The main page for an event lets you configure the event, view match results and team rankings, and manage awards.

**Manage Event**
Selecting the Manage Event navigates to the event’s dashboard. The dashboard contains numbered steps that an administrator should perform to run an event using the FTC Scoring system. The steps differ slightly depending on whether the event is a remote or traditional event.

![USILQT0 Dashboard](image)

![USILQT3 Dashboard](image)

**Figure 10** – The steps available for a remote dashboard (left) differs slightly from steps for a traditional event (right).
Remote Event Dashboard
The remote event dashboard lists the steps that an administrator needs to complete to manage a remote event.

![Image of USILQT0 Dashboard](image)

**Figure 11 - Dashboard for a remote event.**

Event Users
Select this button if you would like to add a user role to help administer this event. When you add a role, you must provide an email address and a role. **Figure 12**.

![Image of Add User interface](image)

**Figure 12 - You can add a user role to help administer your event.**
Note: The email address that you specify ("sampleaddress@sampledomain.com" in Figure 12) needs be associated with a FIRST dashboard account.

![Register](image)

Figure 13 - User's email must be associated with a FIRST dashboard account.

If the user’s email does not yet have a FIRST dashboard account, then the user must create one in order to access the FTC Scoring system ([https://my.firstinspires.org/AccountManager/Account/Register](https://my.firstinspires.org/AccountManager/Account/Register)).

**Event Configuration (Remote)**

To configure a remote event, an administrator must specify start and stop dates for the submission window. Teams are only allowed to submit official remote match scores to the system during the submission window.

**Submission windows may be different from event start and end dates.**

Event start and end: 2020/10/05 - 2020/10/05.

Times are shown in event timezone: America/New_York (Eastern Standard Time)

Submission Window Start

2020/09/13 09:29

Submission Window End

2020/09/19 09:29

**Figure 14 - For a remote event, the administrator should specify the submission window.**

Enter in start and end dates for the submission window and press “Save” to return to the event dashboard.
Add/Edit Teams
Pressing the Add/Edit Teams button navigates you to the Add/Edit Teams display. From this screen you can add or remove teams to your event.

The Add/Edit Teams screen lists any teams that are currently included in the selected event. There are tabs towards the top of the screen that lets you view teams by state/province, region, league (if this is a league event), or individually.

You can select/unselect a team by checking/unchecking the box at the beginning of a team’s listing.

Or, from the “Add Individually” formatted listing, you can add a team by typing in its number in the “Team Number to Add” field and pressing the “Add” button. You can remove a team from the event by clicking on the “x” button (in a dark circle) located at the end of a team’s “Add Individually” listing.

Once you have finished editing your team list for the event, press the “Done” button to return to the dashboard.

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Add/Edit Sponsors
You can add or edit sponsors for an event using this screen.

![Add Sponsor Screen]

**Figure 18** - You can add/edit sponsors for an event.

Press the “Add Sponsor” button to add a sponsor and logo to the event. Select the “Back to Event Dashboard” link to return to the event dashboard.

Advancement Report
Selecting this link displays the advancement report for a tournament event.

Note: Teams can only advance from tournaments, and not from scrimmages or league meets.

![Advancement Report]

**Figure 19** - After awards have been issued, an Advancement Report is available for tournament events.
Publish Event Results
When your remote event has completed and all of the match scores and awards (if applicable) have been submitted, you should officially close the event and publish its results to the ftc-events.firstinspires.org website. Once an event is published, it becomes read-only. Only publish the event if you are certain that all of the match scores and awards have been properly submitted.

Figure 20 - Publish the event after all of the match results and awards (if applicable) have been submitted.

Traditional Event Dashboard
The dashboard for a traditional event looks similar to a remote event’s dashboard.

Figure 21 - A traditional event’s dashboard differs slightly from a remote event’s dashboard.

However, there are some differences in the steps that are available for a traditional event. This section of the document highlights these differences.
Event Configuration (Traditional)
For a traditional event, the FTC Scoring system does not require a submission window since the event will be scored in person. However, the event administrator should specify how many fields will be used at the event.

```
Number of Fields:
1
Save
```

*Figure 22 - When configuring a traditional event the admin should specify the number of fields that will be used at the event.*

Play Event Locally
The FTC Scoring system is a cloud-based system. This means that an administrator needs Internet connectivity in order to access the system. When preparing for a traditional (in-person) event, an administrator should configure the event (add administrators or judges, add/edit teams, etc.) using the FTC Scoring system. After the administrator has finished configuring the event, the administrator can select the “Play Event Locally” button to transfer all of the event data (including the team lists, league rankings if it is a league event, etc.) to a laptop that will be used as the manage the event locally.

An Internet connection is required to do the transfer, but once the event data has been transferred to the scorekeeper laptop, the laptop can be run offline at the event using the FTC Live scoring software.

```
<< Back to Event Dashboard

**Setup Local Play**

**Automatic Setup**

Found FTC Scoring System version 2.0.0_alpha_1

Import This Event

Note: This will redirect you to the local scoring system. Once this process is completed, edits can only be made in the local scoring system.

**Manual Setup**

Give this Event Key to the Scorekeeper or FTA. This key can be entered on the "Setup Event" page of the local scoring system to setup the event. The local scoring system must have internet access. **DO NOT DISTRIBUTE TO ANYONE NOT RUNNING THE SCORING SYSTEM AT THIS EVENT**

Event Key: bc34b6c2-a0e0-4c53-a641-c22cbe2b8342

**Offline Setup**

If the local instance does not have internet access, use button below to download an event file. Upload this file into the local scoring system using the "Offline Setup" page. **DO NOT DISTRIBUTE THIS FILE TO ANYONE NOT RUNNING THE SCORING SYSTEM AT THIS EVENT**

Download
```

*Figure 23 - Once an event has been configured, an admin should transfer data to a laptop running the FTC Live software.*

In order to do the transfer, you will need a laptop (referred to as the “scorekeeper laptop”) that has a current version of the FTC Live scoring software installed (v2.x or newer). If you are managing your traditional event through the FTC Scoring dashboard (which requires an Internet connection) you can also launch the FTC Live software which will run in the background on the laptop. Then, from the Event Dashboard, if you navigate to the “Setup Local Play” screen you can choose the “Automatic Setup” option to import the current traditional event into the FTC Live server that is running on the laptop.
Pressing the “Import This Event” button will automatically import the event data from the FTC Scoring Cloud server to the local FTC Live server that is running on the laptop.

Note: that the “Import This Event” button will only be visible if the system detects a local copy of the FTC Live software running on the laptop.

You can also setup the event data manually using an event key code (see Figure 23 above). An administrator can cut and paste the event key and provide it to the scorekeeper (for example, email the code to the scorekeeper). The scorekeeper can then launch the FTC Live software, and when setting up a new event, provide the event key to the FTC Live software. The system will connect to the FTC Scoring server using this key and retrieve the event data from the Cloud server. This manual process still requires an Internet connection to transfer the data.

If your scorekeeper needs the event data but does not have an Internet connection. If you are able to provide the scorekeeper with a USB drive, you could also download the event data from the FTC Scoring Cloud server and copy the database file to a USB drive. You can then provide the drive to the scorekeeper and they could use it to import the event data into their FTC Live server that is running locally on their laptop.

For additional details refer to the FTC Live Scorekeeper manual.

**Match List for Remote Events**

If you navigate back up to the main event page (see Figure 9, page 10) you see a link called “Match List”. Selecting that link will take you to a page that displays the match list for current event. If the match data is available, an admin can click on an entry in the match list display to view details about the entry.

![Figure 24](image)

*Figure 24 - An administrator can click on a row to view details about the remote matches for a team from the list.*

In Figure 24 above, clicking on the row for team 50550 will display information about the remote matches for that team.
Figure 25 - Clicking on a team’s row in the Match List will take you to the main matches page for that team.

An administrator can play a remote match for the team from this page. An administrator can also select the “Enter Offline Matches” link and enter in match results for the team. For example, if a team does not have access to the Internet from their remote competition field, then the team can keep track of their scores using a pencil and paper scoresheets. After the team completes their matches, they can mail or deliver the paper scoresheets to an event admin, who can in turn enter these offline matches into the FTC Scoring system on behalf of the team.

Figure 26 - If the submission window is still open, an admin can enter in match scores on behalf of a team.
Important Note: An administrator can only modify or enter in the scores if the remote event window is open.

For details on how to score a remote match, refer to the FTC Scoring Team User Guide, which is available from the firstinspires.org website.

Rankings
Selecting the “Rankings” link from the main event page (see Figure 9, page 10) will navigate to the Rankings page for the current event.

Note: that for a remote event, if the event results have not yet been published, only an authorized administrator can see the ranking information.

Manage Awards
An administrator or authorized volunteer can select the Manage Awards link from an event’s main page (see Figure 9, page 10) to assign and present awards for an event. This feature is especially important for a remote event. For a traditional event, the FTC Live software is normally used to manage the awards locally at the event. However, for a remote event, a volunteer or administrator will need to use the FTC Scoring system to assign to teams.

Note: that the Manage Awards feature can also be used to display the award results for a remote event (for example, to display them during a live stream during a remote event).

Give (Assign) Awards
To give awards out to teams, select the “Give Awards” button from the Awards Manager screen. The left-hand side of the screen will display a color-coded list of awards for the remote event. Green awards have already been given. Red awards are required awards. Gray awards are optional.

If you click on a specific award from the list, the award description will appear in the pane to the right of the list. Use the controls in the Award Description pane to assign the winner and runners-up for the selected award.
Figure 28 - Press “Give Awards” to give (assign) awards to teams for an event.

**View Print/Script**
Press this button to view the current awards script. If, for example, you are conducting a live stream of a remote event, your virtual MC can read from the script during a virtual awards ceremony.

**Present Awards**
If you are administering a remote event and are ready to hold a virtual awards ceremony, you can press the “Present Awards” button to display the award results.

**Open Awards Display**
If you would like to have a display screen that will show the award winners, click on the Open Awards Display link to navigate to the awards display.

At the top of the screen, there is a link called “Open Awards Display”. Select this link to open an awards display in a separate browser tab if you would like a display for your event. If you are conducting a virtual
award ceremony you can share this display using your streaming or conferencing software so that your community can view the award results.

Figure 29 - You can open an awards display and share it during a virtual awards event.

**Navigating the Awards**
You can use the Awards Manager controls (in “Present Awards” mode) to post the award results to the award display.

Figure 30 - Press the “Present Awards” button to present awards for a virtual ceremony.

You can navigate through the list of events by using the “Present”, “Next” and “Previous” buttons. You can also navigate directly to an award, by clicking on the award in the listing of the Present Awards screen. For

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example, in Figure 30 (page 21), click on the entry “Control Award sponsored by Arm., Inc.” will jump directly to the presentation of the Control Award.

**Exiting the Awards Manager**

When you are done managing the awards, you can press the “Save and Exit” button to exit the Awards Manager screen.

**Reviewing Your Scores on FTC-Events**

After a remote or traditional event has finished, and the event administrator has reviewed and approved the final event results, the event results get published to the ftc-events.firstinspires.org website.

The FIRST community can visit ftc-events.firstinspires.org to browse event results for prior FTC seasons (beginning with the Skystone 2019-2020 Challenge).

![Figure 31 - After an event is over, the community can review the results at the ftc-events.firstinspires.org website.](image)
Appendix A – Resources

**Game Forum Q&A**
https://ftcforum.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 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**

**FIRST Headquarters Pre-Event Support**
Phone: 603-666-3906
Mon – Fri
8:30am – 5:00pm
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!

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