



2021-2022 FIRST® Tech Challenge

# Introduction to Scoring System - Team Guide



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Revision 1: 02.15.2022

## FIRST\* TECH CHALLENGE SEASON PRESENTING SPONSOR



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Revision History				
Revision	Date	Description		
1.1	02/14/2021	Initial Release		

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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 <a href="https://www.firstinspires.org">www.firstinspires.org</a>.

#### 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.

*Gracious Professionalism*<sup>®</sup> 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.

#### Remote Events

For the 2021-2022 Freight Frenzy competition season, in some regions, teams who participate in the *FIRST* Tech Challenge will compete in *remote* events. For remote events:

- 1. Teams will perform the challenge by themselves (without an alliance partner), from a modified 12' x 8' field set up. The Remote Field Requirements video will walk you through minimum requirements for the remote field.
- Teams will use a cloud-based (Internet-hosted) system <u>FIRST Tech Challenge Scoring (ftclive.org)</u> ftc-scoring.lausd.ftclive.org/login to score their matches from home. A team member or student can keep score for remote matches.
- 3. Match results and awards information from the remote event will be available through the PDP, i.am.angel once the event hasbeen scored and has concluded.

This document shows a team how to access, score their matches for their remote LAUSD events.

#### What's Needed

In order to score a remote event, you will need the following:

- 1. A stable Internet connection.
- 2. A device for entering scores:
  - a. Can be a laptop, Chromebook, tablet or smart phone.
- 3. Access to the FTC Scoring system through web browser.

**Important Note:** The URL needs to be tested at the remote field location(s) to verify the domain is not blocked on school network. If needed please contact the local school IT/network administrator to add ftclive.org to the list of secure domains.

- 4. A second (optional) device to be used as a Field or Audience Display:
  - a. Can be a laptop, Chromebook, or tablet (a larger screen is recommended)
  - b. Accesses the FTC Scoring system through web browser
  - c. Displays match clock, current score and plays audio cues

If you do not have access to a reliable Internet connection, you should use paper scoresheets (available from the <u>firstinspires.org website</u>) to score your remote matches. After you have scored your matches, you can have someone (such as your coach or the remote event organizer) enter in your scores from the paper scoresheets into the system once they have access to the Internet. This must be done during the submission window for the event.

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# **Accessing the System**

The LAUSD system is separate from the FIRST systems. In order to be able to access the system, your team must be officially registered and paid for the current season. If your team has officially registered for the LAUSD pilot then you should have received a team-specific username and password for the remote scoring system

1. Visit <u>FIRST Tech Challenge Scoring (ftclive.org)</u> in your web browser to navigate to the FTC Scoring website then log in with your designated user name and password provided by i.am.angel.



Figure 1 - The team landing page should display your team info and list your team's remote events.

- 2. You should see the system landing page for your team.
  - a. Team info is displayed at the top.
  - b. A list of your team's events should be visible.

# **Navigating to Your Landing Page**

While logged in to the 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.



Figure 2 - Select the FIRST Tech Challenge logo to navigate to the main landing page for your team.

# **Managing Your Team Account**

You can manage your team account (logout) by selecting the "Hello <USER NAME>" link in the upper right-hand corner of the screen.

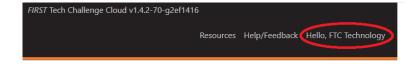


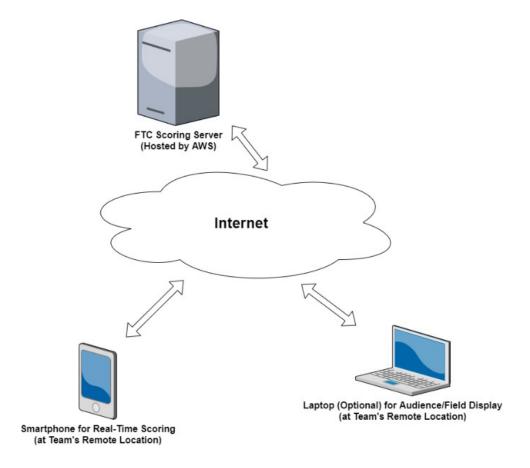
Figure 3 - Select this link to manage your FTC Scoring user account.

# **Scoring a Remote Match**

#### Scoring with an Internet Connection

To be able to score a remote match, a team will need to designate someone (team member or volunteer) to act as the scorekeeper during the remote match.

Important Note: The scorekeeper cannot also be a part of the drive team during a match. The team will need at least one device that is connected to the Internet and logged into <a href="FIRST Tech Challenge Scoring">FIRST Tech Challenge Scoring</a> (ftclive.org) This device will be used to enter in the scores during a remote match.



The team can have an optional second device, typically a laptop, that is connected to the Internet to act as an audience or field display. This display includes a game clock and plays audio cues during a remote match.

## Selecting a Practice Match or an Official Match

Teams have the option of running a practice match or can score an *official match* using the system.

• For a practice match, the results are not saved to the server after the match has completed.

• For an official match, the results are saved for the active remote event to the server and *cannot be changed* by a team once the results have been submitted. This is analogous to how an official match for a traditional (in-person) match is scored.

Note: The process for scoring a practice match is very similar to scoring an official match. This document focuses primarily on scoring an official match, but the steps covered also apply to the process for scoring a practice match.

If you would like to keep score for a practice match, select the "Practice Matches" link from the side menu.

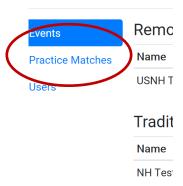


Figure 6 - Select "Practice Matches" link to run a match without saving the results.

If you would like to record an official score for an active remote event, select the "Play Matches" button for that remote event.



Figure 7 - Select "Play Matches" to record a score for an active remote event

#### Team Event Screen

Pressing the "Play Matches" button for a remote event takes you to a page that displays information about your team for the selected event. In the upper left-hand corner of the screen, the number of matches played for the event is shown.

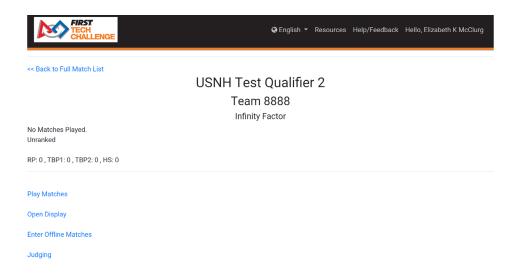


Figure 8 - Pressing the "Play Matches" button will display a screen with information about the matches a team has played.

Note: Teams get to play six matches per remote event. The matches do not have to be played within the same day. Although, all six matches need to be played, scored and submitted within the event's submission window. For an active event, ranking information is not displayed. However, the screen does include a team's current ranking points, tie breaker points and high score for the active remote event.

#### Configuring a Display Screen (Optional)

In order to score a remote match using the system, you will need at least one device that is connected to the Internet to enter in scores to the system. This device is referred to as the score tracker device. The score tracker device can also be used to play audio cues to indicate when to start different phases of a match.

In addition to this device, a team might want to set up a second, *optional* device to act as a displayscreen. During a match, a display screen shows useful information to the drive team and to other participants of the remote match. A display screen is not required, but it can be helpful since the drive team can view the display to keep track of the time during a match.

One of the options on the right-hand side of the Play Matches page is labeled "Open Display". If you select this link, your browser should navigate to a screen that you can use to configure an audience or field display that you can use to display a game timer, show the live score, and play audio cues for your remote match.

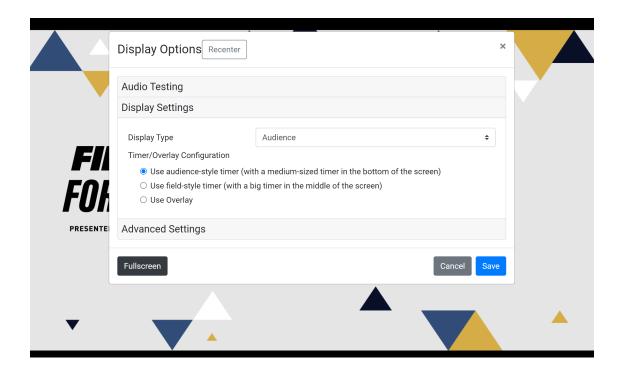
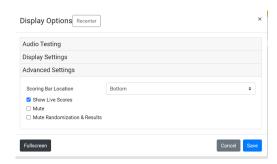


Figure 9 - System will prompt you to set display options.

You should select this link from the computer that you would like to use as your display device. The system will prompt you to set the options for your display screen.

- If you would like to use a display that is designed primarily for an audience, select the "Audience Display" option for the Display Type.
- If you would like to use a display that is designed primarily for use by teams on the competition field, select the "Field Display" option (used at traditional events) for the Display Type.
  - The Field Display has a bigger match clock, which is easier for the drive team to see.

• If you'd like to mute the audio, check the "Mute" box, under Advanced Settings.



- Note in your field area, in order to avoid audio synchronization issues, you typically only want to have one device (scorekeeper or display device) playing audio.
- Press the "Save" button after you have configured your options.

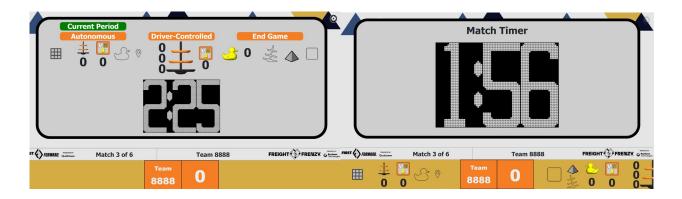


Figure 10 - The Audience Display (left) has bigger scoring icons and a smaller clock than the Field Display (right).

#### Scoring a Match

A *FIRST* Tech Challenge match consists of an autonomous phase and a driver-controlled phase. During the autonomous phase, which is the first 30 seconds of a match, the robot must operate independently, without any input from the team. The remaining two minutes of a match is the driver-controlled phase. The last 30 seconds of the driver-controlled phase is a special phase known as the *end game* period of a match. It is important to prepare for scoring the team's matches. Watch this <u>three-part video series</u> on scoring the game for a full understanding of the field, how to score and scoring on a tablet.

When you are ready to play a match for an active Remote Event, select the Play Matches link on the Team Event Screen on the device that will be used to enter in the live scores during your match. If the submission window for the Remote Event is still open, the system will display a screen that lists your team's played and unplayed matches for the event.

**Important Note:** Once you have begun the process to score your official remote match, *you cannot cancel or restart this process*! Do not start to score an official remote match unless your team and robot are ready to play the match. Also, once the match has begun, do not navigate away from the scoring web page until the match has been completed.

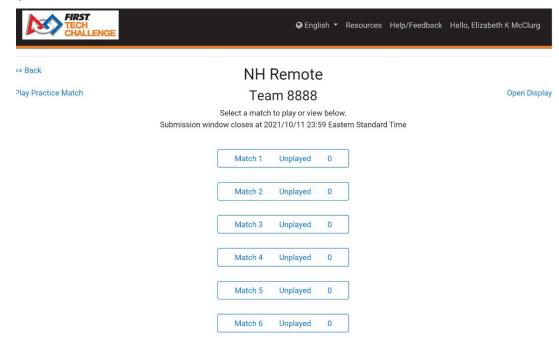
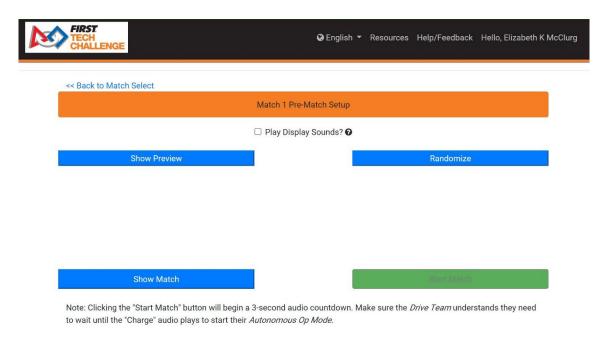


Figure 11 - The system should list your played and unplayed matches for an active Remote Event.



When your team is ready to start the match, press the "Show Preview" button. This will display the match information (team info and match number) on any Audience or Field display that you have open.

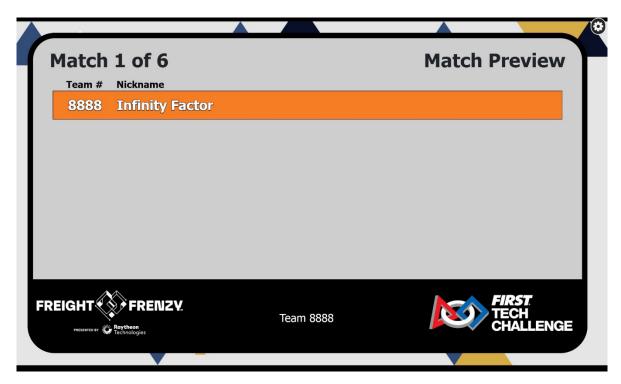


Figure 13 - The Match Preview screen shows match and team information on the audience and field displays.

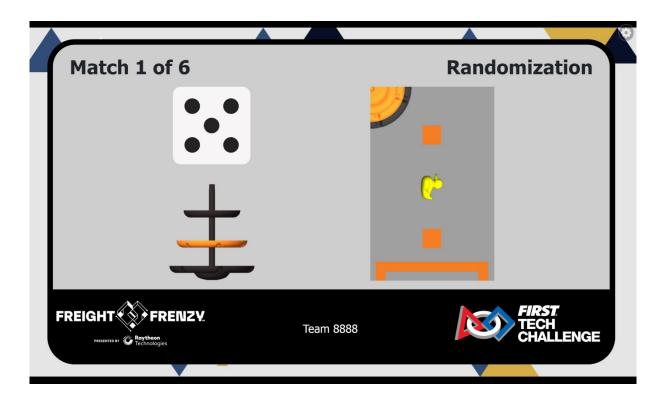


Figure 14 - Pressing the "Randomize" button displays the randomized state for the autonomous phase of the match.



Figure 15 - Pressing the "Show Match" button displays the match clock and pre-match info on the audience or field display. Audience display is shown.

If the drive team members, the scorekeeper, and the human player are all ready to begin, press the "Start Match" button on the Pre-Match Setup page to begin scoring your match. The system will play an audio countdown ("3-2-1" and then a start sound) and then the match clock will begin running and the scorekeeper's screen should display the input screen for the autonomous phase.

Note: You cannot cancel or restart the match once it has begun. Also, you should stay on the score tracking input screen while the match is running (i.e., do not close the tab or navigate away to a different address).

## Scoring the Autonomous Phase of a Remote Match

During the autonomous period the scoring screen will look like this:

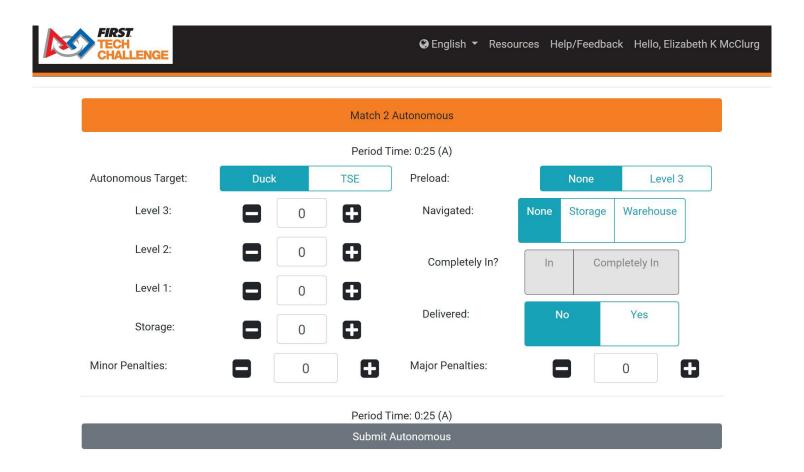


Figure 16 - Scorekeeper's screen during the autonomous portion of a match.

At the top of the screen is the match number. The screen also shows the "Period Time" at the top and bottom of the input screen. This is the amount of time left during the autonomous period.

When the autonomous period is over, the Period Time field will go to zero and an audio cue with an end of phase buzzer will be played. The scorekeeper should finish scoring the autonomous portion of the match and press the "Submit Autonomous" button to submit the autonomous score and get ready to score the driver-controlled portion of the match.

#### Scoring the Driver-Controlled Phase of a Remote Match

There will be a brief period between the autonomous phase and the driver-controlled phase to allow the drive team to pick up their controllers and initiated their driver-controlled op modes. At the end of this transition phase the driver-controlled phase begins. The scorekeeper can use the controls on the driver-controlled input screen to track the team's score during this portion of the match.

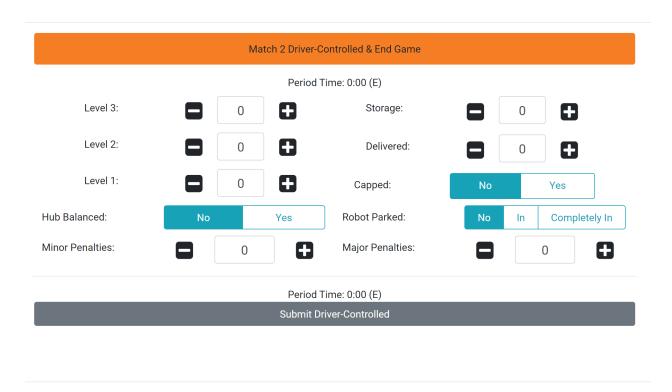


Figure 17 - Scorekeeper's screen during the driver-controlled portion of a match.

When the driver-controlled period is over, the scorekeeper should finish assigning points (or penalties) to the team and press the "Submit Driver-Controlled" button to submit the driver-controlled score and to enter the review mode of the match.

#### Reviewing and Submitting the Match Score

When the match is complete and both the autonomous and driver-controlled scores have been submitted, the scorekeeper has the option to review (and adjust if needed) both sets of scores before submitting the scores to the system.

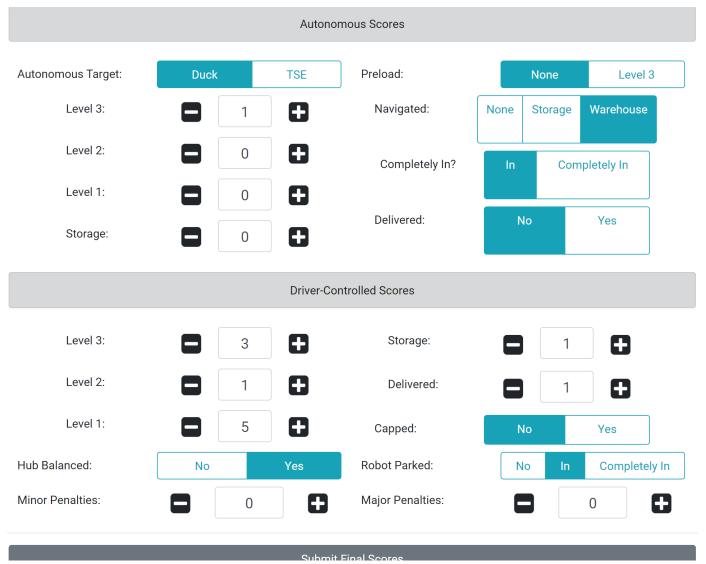


Figure 18 - The scorekeeper can review and adjust the autonomous and driver-controlled scores before submitting them.

When the team's scorekeeper has completed the match review, the scorekeeper will press the "Submit Final Scores" button to submit the scores to the system. If the match is an official match for an active remote event, the score will be recorded in the system and the team will no longer be able to modify the scores for that match. If the match is a test match, the scores will not be saved in the system.

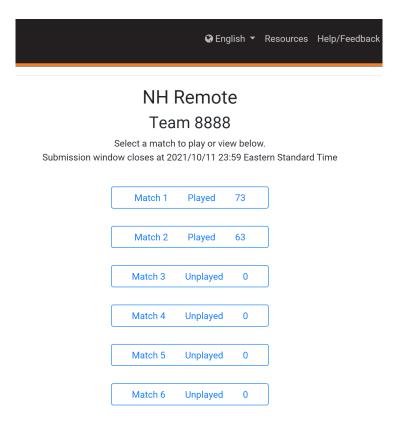


Figure 19 - After an official score has been submitted, the event page will be updated with the current match information.

Note: That a team's ranking and tie breaking points are private (only visible to the team and to the region administrators) until the event's submission period is complete, and until the results are published by the administrator.

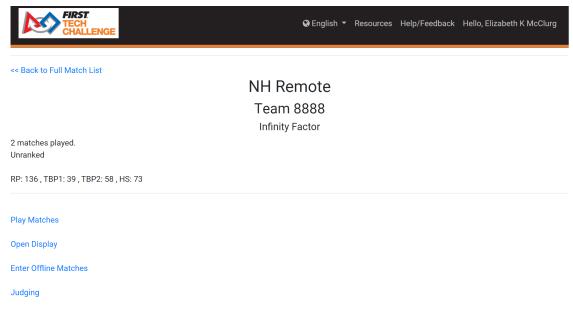


Figure 20 - A team's ranking and tie breaker points are private until the remote event is officially over.

#### Scoring a Match Using Paper Scoresheets

If you do not have a reliable Internet connection at the location of your remote game field, you will need to use paper scoresheets to keep track of your scores during your remote matches. You can download the remote scoresheet as a .PDF file from the firstinspires.org website.

https://www.firstinspires.org/sites/default/files/uploads/resource library/ftc/remote-scoresheet.pdf

You can print out these scoresheets in advance of your remote event, then use them to score your matches during the event.



Figure 21 - Teams should use a paper scoresheet if they lack a reliable Internet connection at their remote competition field.

During a remote match, the team can use a stopwatch or set a countdown timer on their smartphone to keep track of the phases of the match. The first 30 seconds of a match is the autonomous phase. The remaining 2 minutes is the driver-controlled phase and the last 30 seconds of the driver-controlled phase is the end game.

#### Entering Offline Scores

Once a match has been scored, a team administrator, the event admin or the PDP who has access to the Internet can login to the system and enter in the match data to the scoring system.

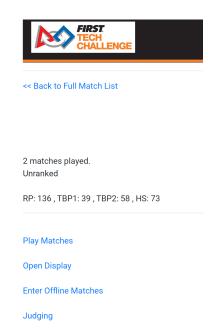


Figure 22 - Select the "Enter Offline Matches" link from the team's event page to enter match results.

The system will list the team's matches for the current active event. Select a match listing to enter scores for that match.



Figure 23 - Select a match listing to enter scores for that match.

Once you have entered and reviewed your scores, press the "Submit Final Scores" button to submit the final scores for that remote match. Once the final scores have been submitted, the team will no longer be able to edit the results for that match.

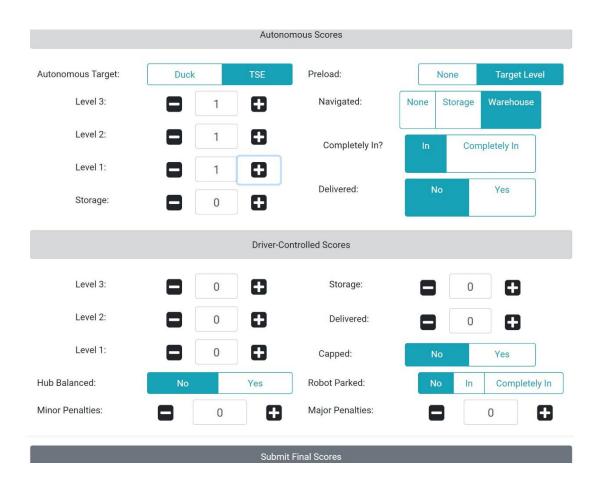


Figure 24 - Enter the scores onto the electronic form and press "Submit Final Scores" to submit them to the system.

# Appendix A – Resources

#### Game Forum Q&A

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

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

#### Volunteer Forum

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

## FIRST Tech Challenge Game Manuals

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

### FIRST Headquarters Pre-Event Support

Phone: 603-666-3906

Mon – Fri

8:30am - 5:00pm

Email: Firsttechchallenge@firstinspires.org

#### FIRST Websites

FIRST homepage – www.firstinspires.org

<u>FIRST Tech Challenge Page</u> – 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!

