

Referee Scoring Tablet Guide

Revision History	
Revision	Description
25-26.1	Initial 2025-26 Season Release
25-26.2	Added: Device Settings & Configuration Added: Special Inputs for Some DECODE Violations G401 & G427 Edited: Additional Violations & Cards regarding G401 & G427, RP violation application Updated: Figure 2 & Figure 5 per v7.2.1 Added: Event Day Support Added: Appendix A: Gameplay Referee Entry (Optional)

Contents

Overview	2
Scope	2
Event Management System	2
Device Setup	3
Scoring System Connection and Setup	3
Device Settings & Configuration	3
Frequent Icons and Terms	4
Referee Score Tracking	5
Scoring Referee Locations	5
Access Referee Score Tracking	6
Field Selection	7
Match Selection	7
Pre-Match Setup	8
Ready	10
AUTO Scoring	12
TELEOP Scoring	19
Scoring Review	22
Resources	27
Head Referee View	29
Overview	29
Access Head Referee View	29
Head Referee Notes	31
Timers	35
Scoresheets	38
Active Match	39
Event Day Support	49
Appendix A: Gameplay Referee Entry (Optional)	50
Device Setup	50
Gameplay Referee Entry	51
Impact on Other Devices	59

Overview

Scope

This guide covers Referee scoring tablet functions for the *FIRST*® Tech Challenge (FTC) program for the DECODE™ season. This document is not intended to detail how to set up an event in the system or set up the Event Management System at an event. Please see the [FTC-Live Scoring Setup Guide](#) for more details on the FTC-Live setup.

Event Management System

The FTC Event Management System is composed of FTC Scoring, FTC Live, and FTC Events.

FTC Scoring

[FTC Scoring](#) is the cloud-based, official event management system for FTC.

Volunteers and Teams use FTC Scoring for a variety of functions. These include:

- Manage Region, League, and Team Information
- Create and manage Events and Leagues
- Complete hybrid Judging and Portfolios

The [FTC Score Calculator](#) is part of FTC Scoring and can be used by teams and Referees to provide a practice input for scoring. All of the scoring functions are replicated in the FTC Score Calculator. Additionally, the FTC Score Calculator shows a live score breakdown, including RP, at the top of the screen and includes a timer and randomization functions to allow a team or volunteer to run a complete match with the FTC Score Calculator.

FTC Live

[FTC Live](#) is the local event management software used during an event to run matches, operate local displays, manage awards, and determine advancement from an event.

- Local event management
- Manage & track event scores and rankings
- Scoreboard and display management

FTC Events

[FTC Events](#) is the official score results website for *FIRST* Tech Challenge. On this site, people may:

- View region, league, and team information
- View event, match, and ranking information
- View awards information, league rankings, and advancement information

Device Setup

Scoring System Connection and Setup

In order to use a device such as a phone or tablet for any Referee function, the following steps must be completed:

- Connect to the Wi-Fi network being used by the event.
- In an internet browser (see supported browsers below), set the address to the FTC Live IP address.
- Login with appropriate credentials created for the event in FTC Live.

The individual operating the local scoring system (e.g., Scorekeeper) can provide the IP and login information.

Events and/or venues may restrict which devices are allowed on their network and instead require the use of event- or venue- supplied devices. If you anticipate needing to use a personal device, let event technical volunteers know as soon as possible.

Device Settings & Configuration

Physical Configuration

It is recommended that devices used for Referee functions have the following features:

- Tablets are recommended for scoring Referees and Head Referees.
- Any tablets and phones that are used should include a physical feature that helps prevent accidental release of the device or prevent it from travelling far if released.
 - Wrist or neck lanyard
 - Case with built-in handle or hand-strap
 - Circular or ring grip/stand

Settings













It is recommended that devices used for Referee functions have the following operating system settings:

- Latest version of operating system and browser.

Safari and Chrome are the supported browsers for iOS.
Silk and Chrome are the supported browsers for Fire OS.
Chrome is the supported browser for Android and all other operating systems.

- If there is a password or PIN code to unlock the device, it should be communicated to the Head Referee, Referees, and/or FTA.
- The screen is set to not auto-rotate e.g., “Auto-rotate” is OFF or Rotation Lock is ON.
- The screen is locked in portrait mode (vertical).
- The screen is set to stay awake – e.g., “Auto-Lock” or “Screen Timeout” – a minimum of 5 minutes.

Frequent Icons and Terms

Icon	Term	Description/Definition
	Green ARTIFACT	Indicates a Green ARTIFACT in a MOTIF or in a position on a RAMP.
	Green ARTIFACT scoring PATTERN points	Indicates a Green ARTIFACT in a position on a RAMP that scores PATTERN points (Head Referee Active Match summary view only).
	Purple ARTIFACT	Indicates a Purple ARTIFACT in a MOTIF or in a position on a RAMP.
	Purple ARTIFACT scoring PATTERN points	Indicates a Green ARTIFACT in a position on a RAMP that scores PATTERN points (Head Referee Active Match summary view only).
	No ARTIFACT	Indicates no ARTIFACT is present.
	Increase blue count	Increase the count shown in the adjacent box for blue.
	Increase red count	Increase the count shown in the adjacent box for red.
	Decrease count	Decrease the count shown in the adjacent box.
	GATE	The GATE is located at the bottom of the RAMP.
	SQUARE	The SQUARE is located at the top of the RAMP.
	Achieved	This scoring achievement has been accomplished.
	Not achieved	This scoring achievement has not been accomplished.

Referee Score Tracking

Scoring Referee Locations

Referees that track Scores should be located adjacent to the Alliance Area that aligns with their score tracking tablet color.

Referees that track Scores are responsible NOT for an Alliance, but for all of the scoring achievements on their assigned side of the field. In DECODE, there is a mix of Alliance scoring elements on each side of the field, so the Referees that track Scores are responsible for a mix of Alliance tasks on their assigned sides of the field.

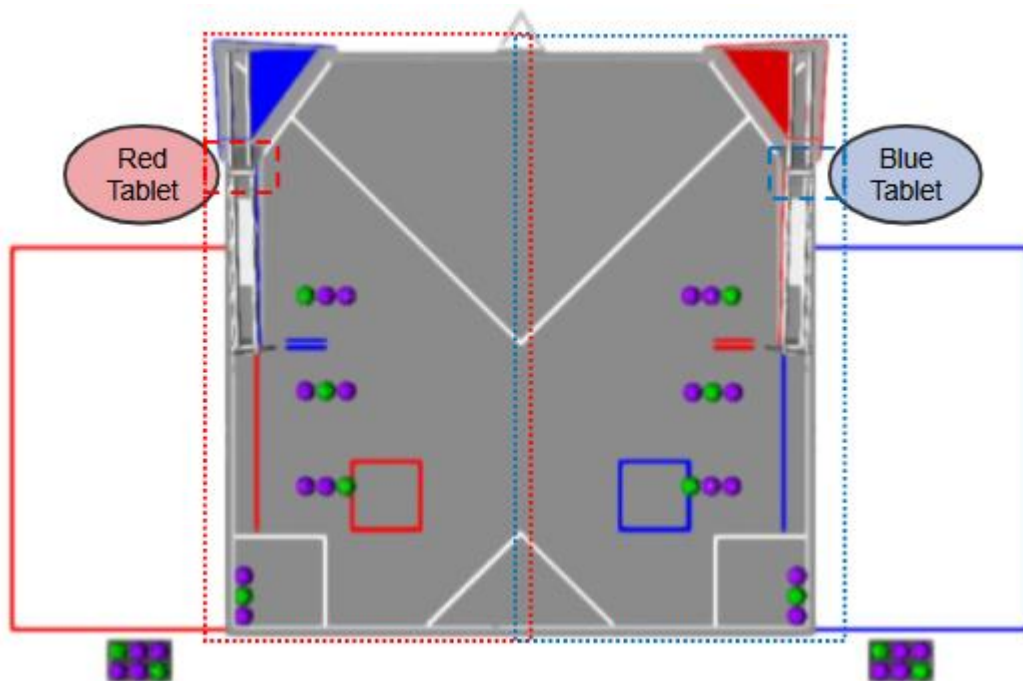


Figure 1: Scoring Referee Locations

Access Referee Score Tracking

Once logged in to a valid Referee login, the Referee must navigate to the Referee Score Tracking category on the FTC Live event home page shown in Figure 2 and select either red or blue Scoring Referee.

Referees should be standing adjacent to the Alliance Area color that aligns with the color of the Referee score tracking menu selected, as shown in Figure 1.

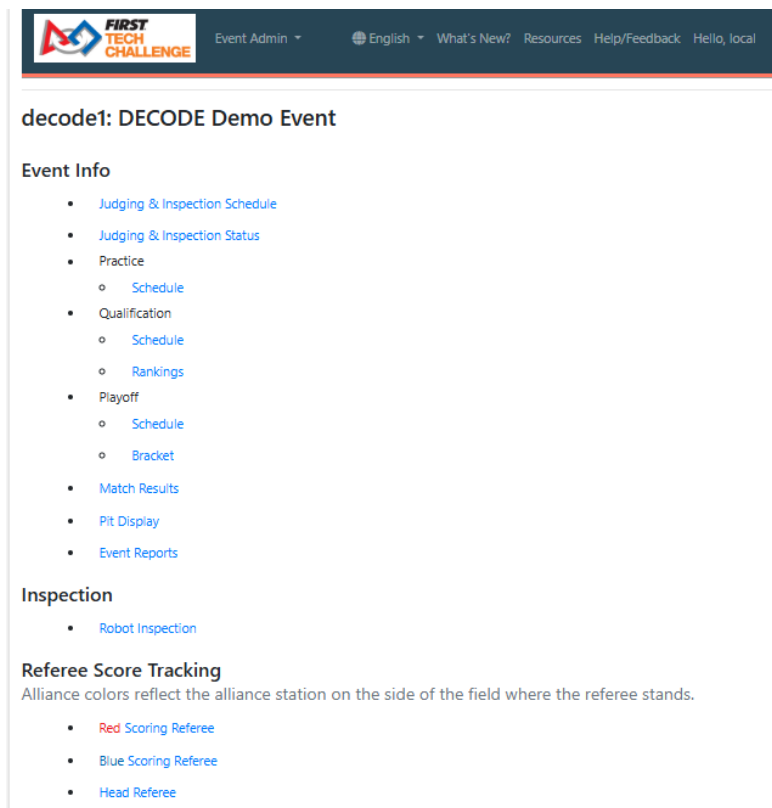


Figure 2: Event Home Page for Referees

Field Selection

The Field Selection screen allows the Referee to select the appropriate field(s).

Within either the red or blue score tracking, a selection of fields must be made, as shown in Figure 3. It is recommended for Referees at multi-field events to **only select the field on which the tablet is used**. At most events for the majority of matches, the Referee should select only one field. Once Playoff Matches are on “Field 0,” it is advisable to setup tablets for “All Fields.”

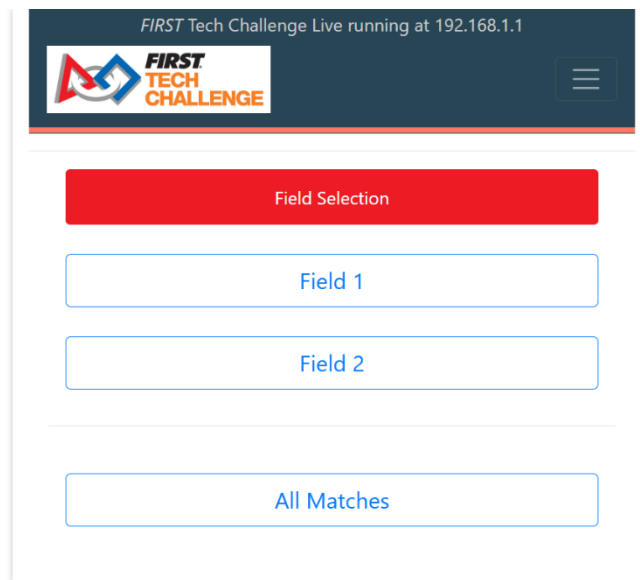


Figure 3: Red Alliance Score Tracking – Field Selection

Match Selection

The Match Selection screen is the beginning of the match cycle on the Referee scoring tablet.

If no match is available for selection, as shown in Figure 4, then the Scorekeeper has not made the next match active.

Once the Scorekeeper has activated the match, it will be selectable on this screen, as shown in Figure 5. Referees should check the match number and ensure that they are selecting the correct match.

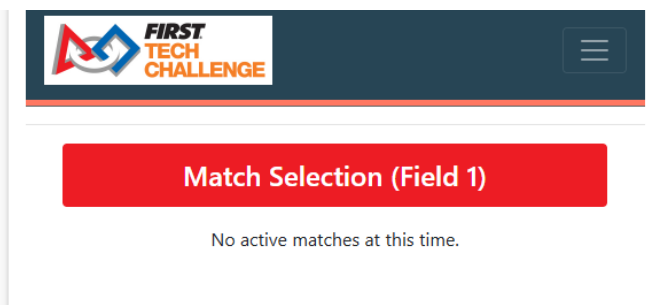


Figure 4: Match Selection – No Matches

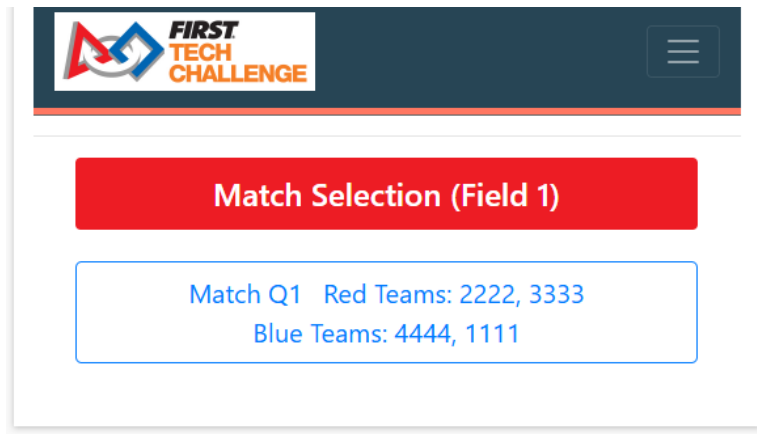


Figure 5: Match Selection – Match Available

Pre-Match Setup

The color banner should match the color of the alliance area nearest to the scoring Referee.

On the page shown in Figure 6, the scoring Referee enters the status of the teams in the alliance area across from them, which have robots in the scoring Referee's side of the field.

Referees should check to confirm the correct teams are present, that the drive teams are prepared to participate in the match, and the robot is compliant with relevant rules at the start of the match.


Enter information about each of the teams present, as follows:

- **No team:** no team members are present at the field and their robot is not present on the field.
- **No robot:** the robot is not present on the field, but at least one member of the drive team is present in the alliance area.
- **Present:** the robot is starting the match on the field and at least one drive team member is present at the field. This is the default selection.

The scoring system automatically applies the relevant rules based on these selections.

During Playoff Matches, "No Team" is not an option.

After inputting team information on the Pre-Match Setup screen, the Referee should advance to the Ready screen with the “Red Alliance Ready” button. The Referee can return to this screen at any time until they submit AUTO.




Q1 Pre-Match Setup (Field 1)

Blue Alliance Teams:

Team 2222 Present:	No Team	No Robot	Present
Team 1111 Present:	No Team	No Robot	Present

Blue Alliance Ready



Q1 Pre-Match Setup (Field 1)

Red Alliance Teams:

Team 3333 Present:	No Team	No Robot	Present
Team 4444 Present:	No Team	No Robot	Present

Red Alliance Ready

Figure 6: Pre-Match Setup for the Red (Left) and Blue (Right) Scoring Referees

Ready

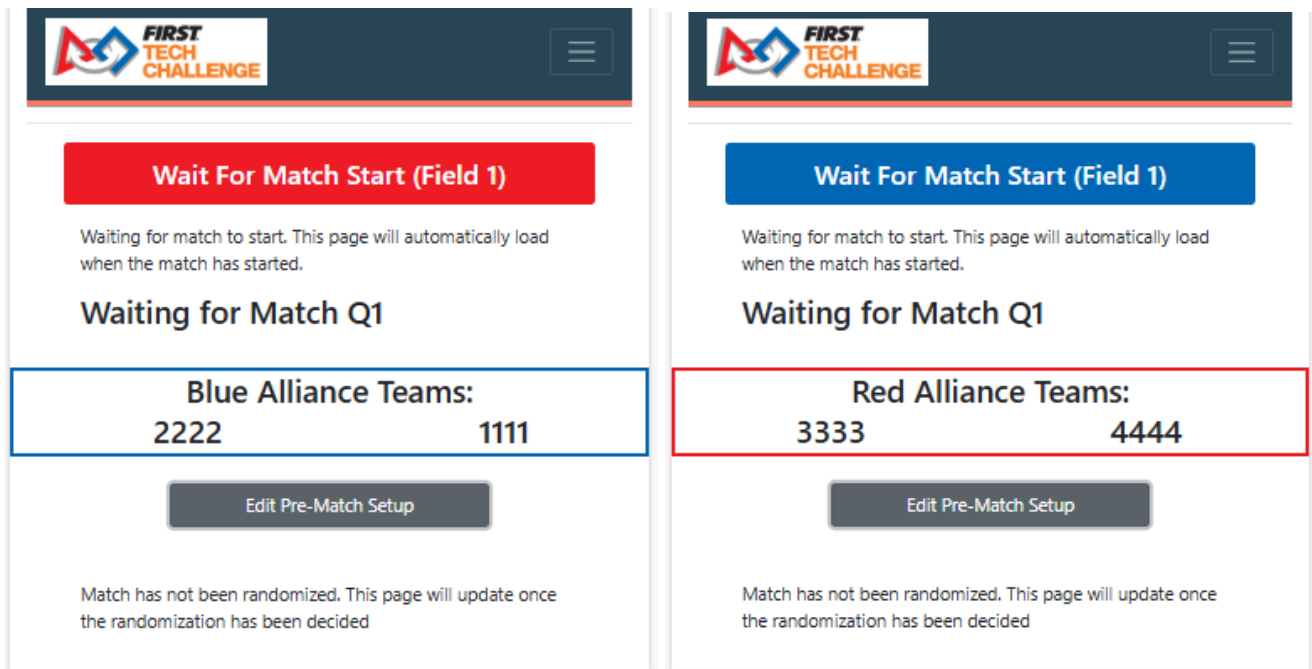


Figure 7: Ready Screen for the Red (Left) and Blue (Right) Scoring Referees

The Ready screen, as shown in Figure 7, denotes that the Referee is ready and the relevant alliance's participation status is confirmed to start the match. It flags to the Head Referee and Scorekeeper that the Referee is ready.

If one or both of the scoring Referees is not on the Ready screen, this will be apparent to both the Head Referee and the Scorekeeper. See Figure 8 as an example of the red scoring Referee not being ready and Figure 9, where both scoring Referees are ready.

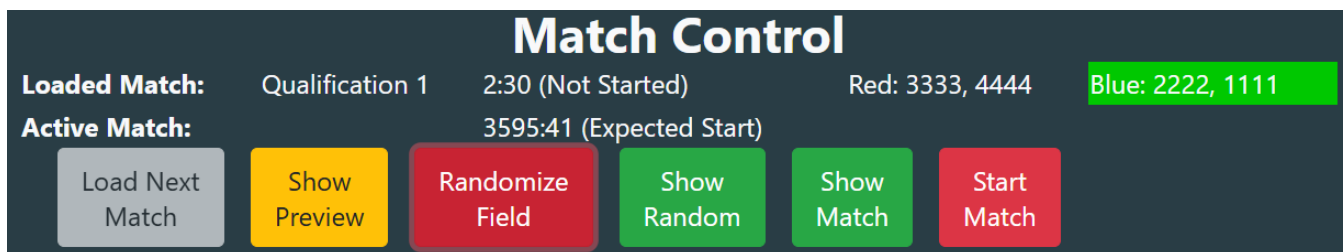


Figure 8: Scorekeeper's Match Control Screen – Red Scoring Referee is not "Ready," Blue Scoring Referee is "Ready"

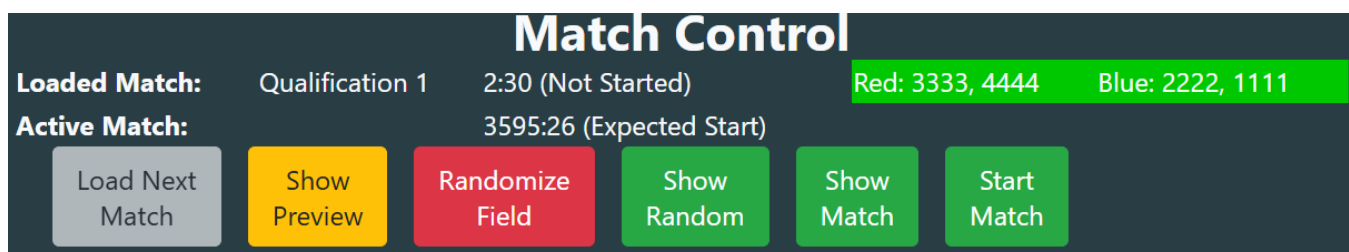


Figure 9: Scorekeeper's Match Control Screen – Red Scoring Referee and Blue Scoring Referee are both "Ready"

The Referee can return to the Pre-Match Setup screen, if needed, in order to edit the status of the teams participating in the match. However, the Referee must return to the Ready screen to indicate they are ready to start the match.

After randomization is initiated, the randomized motif will display on the Ready screen of the Referee Scoring Tablets. Referees should help ensure the Obelisk is randomized correctly. The same information will also appear on the field display, if applicable.

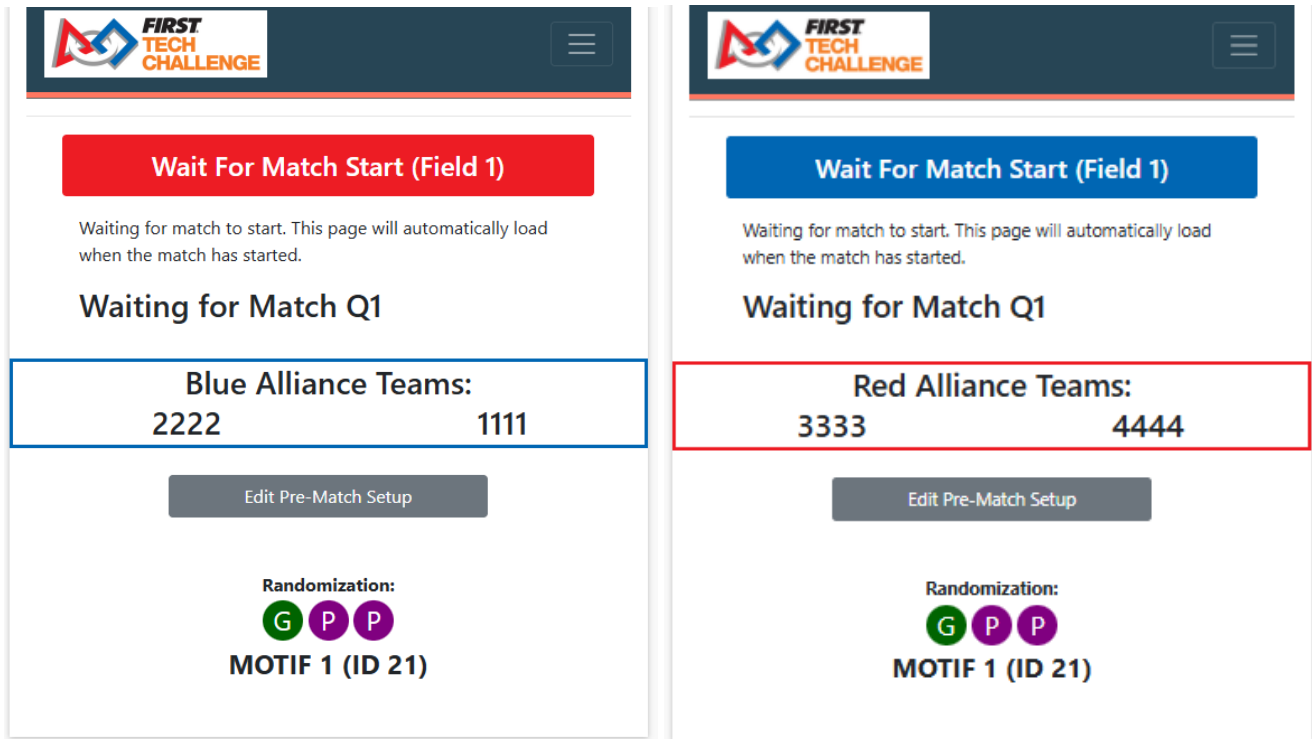
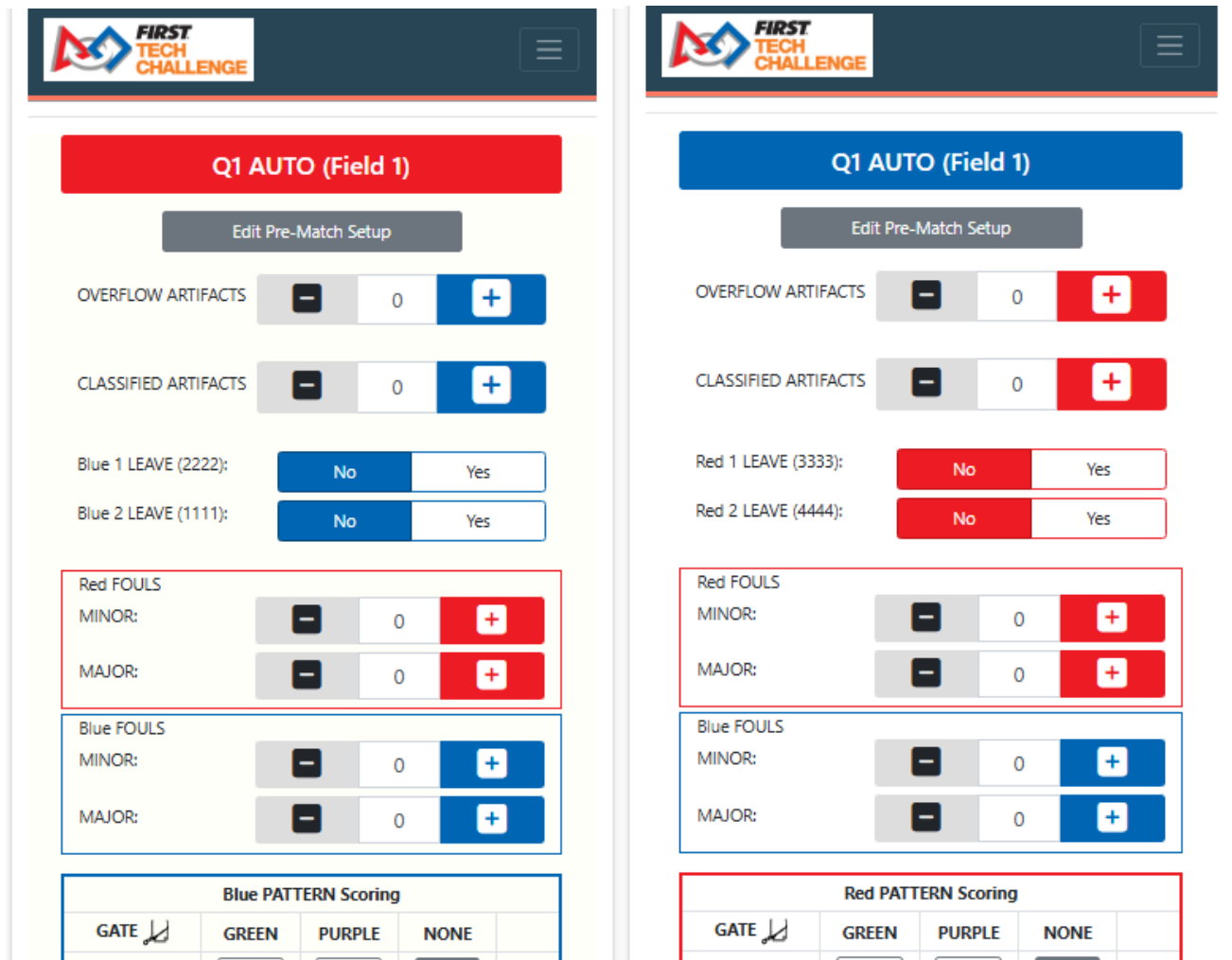


Figure 10: Ready Screen – Randomized for the Red (Left) and Blue (Right) Scoring Referees

AUTO Scoring



Q1 AUTO (Field 1)

Edit Pre-Match Setup

OVERFLOW ARTIFACTS 0

CLASSIFIED ARTIFACTS 0

Blue 1 LEAVE (2222):

Blue 2 LEAVE (1111):

Red FOULS

MINOR: 0

MAJOR: 0

Blue FOULS

MINOR: 0

MAJOR: 0

Blue PATTERN Scoring

GATE	GREEN	PURPLE	NONE
<input type="button" value="GATE"/>	<input type="button" value="GREEN"/>	<input type="button" value="PURPLE"/>	<input type="button" value="NONE"/>

Red PATTERN Scoring

GATE	GREEN	PURPLE	NONE
<input type="button" value="GATE"/>	<input type="button" value="GREEN"/>	<input type="button" value="PURPLE"/>	<input type="button" value="NONE"/>

Figure 11: AUTO Scoring – Artifacts, Leave, and Fouls for the Red (Left) and Blue (Right) Scoring Referees

This page is for recording AUTO scoring. After scoring AUTO, click the submit button to advance to the TELEOP screen. Even if the scoring Referee has questions about AUTO, they should submit what they can and move on so they don't miss TELEOP achievements. The page will blink yellow if the Referee has not advanced to TELEOP in time.

Referees can make edits to the AUTO scores in the Review screen following TELEOP.

For in-match scoring, the Referee scores achievements that occur on the same side of the field. This will include achievements by both alliances. Referees are looking at the goal immediately adjacent to them and the robots that start on their side of the field, which should match the color of the inputs.

Artifacts

OVERFLOW ARTIFACTS	<input type="button" value="-"/>	<input type="text" value="0"/>	<input type="button" value="+"/>	OVERFLOW ARTIFACTS	<input type="button" value="-"/>	<input type="text" value="0"/>	<input type="button" value="+"/>
CLASSIFIED ARTIFACTS	<input type="button" value="-"/>	<input type="text" value="3"/>	<input type="button" value="+"/>	CLASSIFIED ARTIFACTS	<input type="button" value="-"/>	<input type="text" value="0"/>	<input type="button" value="+"/>

Figure 12: AUTO Scoring – Artifact Inputs for the Red (Left) and Blue (Right) Scoring Referees

Use the top two inputs to record the number of artifacts that enter the goal, exit under the archway, and pass through the square, live as they are scored.

- If the artifact passes through the square and transitions directly to the ramp, count it as classified.
- If the artifact passes through the square but does not directly transition to the ramp, count it as overflow.

Leave

Blue 1 LEAVE (2222):	<input type="button" value="No"/>	<input type="button" value="Yes"/>	Red 1 LEAVE (3333):	<input type="button" value="No"/>	<input type="button" value="Yes"/>
Blue 2 LEAVE (1111):	<input type="button" value="No"/>	<input type="button" value="Yes"/>	Red 2 LEAVE (4444):	<input type="button" value="No"/>	<input type="button" value="Yes"/>

Figure 13: AUTO Scoring – Leave Inputs for the Red (Left) and Blue (Right) Scoring Referees

For each robot that started on the scoring Referee's half of the field, check their location at the end of AUTO (approximately at the start of the buzzer).

To count for leave points (mark as "Yes"), the robot must be not be over any launch line (the lines of the white triangles and the line at the base of the goal). Otherwise, the scoring Referee should mark them as "No."

The number in parentheses is the team number for that robot. Entering the correct robot helps ensure accurate scoring; however, if the Referee cannot immediately identify the two robots, they should enter the correct quantity regardless of team.

Red 1 LEAVE (No Robot):	<input type="button" value="No"/>	<input type="button" value="Yes"/>
Red 2 LEAVE (4444):	<input type="button" value="No"/>	<input type="button" value="Yes"/>

Figure 14: Leave cannot be scored with "No Robot" or "No Team"

Fouls


Red FOULS			
MINOR:	<input type="button" value="-"/>	1	<input type="button" value="+"/>
MAJOR:	<input type="button" value="-"/>	3	<input type="button" value="+"/>

Blue FOULS			
MINOR:	<input type="button" value="-"/>	2	<input type="button" value="+"/>
MAJOR:	<input type="button" value="-"/>	1	<input type="button" value="+"/>

Figure 15: AUTO Scoring – Foul Input

The scoring Referee should enter any fouls communicated to them by the gameplay Referee during the match. Foul counts are shared between AUTO and TELEOP. Each scoring Referee can enter fouls for either alliance, but they will not see foul counts entered by other Referees.

When entering a foul, the scoring Referee should ensure they enter the correct foul type for the correct alliance.


☰

Q1 AUTO (Field 1)

Edit Pre-Match Setup

OVERFLOW ARTIFACTS

1

CLASSIFIED ARTIFACTS

5

Blue 1 LEAVE (2222):

No

Yes

Blue 2 LEAVE (1111):

No

Yes

Red FOULS			
MINOR:	<input type="button" value="-"/>	3	<input type="button" value="+"/>
MAJOR:	<input type="button" value="-"/>	1	<input type="button" value="+"/>

Blue FOULS			
MINOR:	<input type="button" value="-"/>	1	<input type="button" value="+"/>
MAJOR:	<input type="button" value="-"/>	0	<input type="button" value="+"/>

Figure 16: Example AUTO Inputs – Artifacts, Leave, and Fouls

Pattern

As AUTO ends, artifacts on the ramp contained by the gate are recorded for pattern scoring.

Blue PATTERN Scoring

GATE	GREEN	PURPLE	NONE	
1	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
2	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
3	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
4	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
5	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
6	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
7	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
8	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
9	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
SQUARE <input type="checkbox"/>	GREEN	PURPLE	NONE	

Submit AUTO

Red PATTERN Scoring

GATE	GREEN	PURPLE	NONE	
1	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
2	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
3	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
4	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
5	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
6	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
7	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
8	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
9	<div style="background-color: green; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">G</div>	<div style="background-color: purple; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div>	<div style="background-color: gray; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">○</div>
SQUARE <input type="checkbox"/>	GREEN	PURPLE	NONE	

Submit AUTO
































Figure 17: AUTO – Pattern Scoring Inputs for Red (left) and Blue (Right) Scoring Referees

Starting at the gate (first input, nearest the bottom of the ramp), record the color of each artifact directly on the ramp in the order they are on the ramp by selecting either "green" or "purple," regardless of how they got there. If only 5 artifacts are on the ramp, only 5 colors should be recorded, starting at the gate. The rest (6-9) should remain with the default "none" (white circle). This example is shown in Figure 18 for the red scoring Referee (blue pattern).

The Referee has a limited time to enter this information before the start of TELEOP. While watching the SQUARE is the highest priority, if there is a lull in AUTO, the Referee may start entering the pattern. Once TELEOP starts, if a robot opens the GATE, the pattern information will be lost, so it is important to work expediently.







































Blue PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE <input type="checkbox"/>	GREEN	PURPLE	NONE	

Submit AUTO

Red PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE <input type="checkbox"/>	GREEN	PURPLE	NONE	









Submit AUTO

Figure 18: Example AUTO Input – Pattern Scoring for the Red (Left) and Blue (Right) Scoring Referees

Blue PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	

Submit AUTO

Artifacts must be contiguous in the auto classifier

Blue PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	

Submit AUTO

Artifacts must be contiguous in the auto classifier

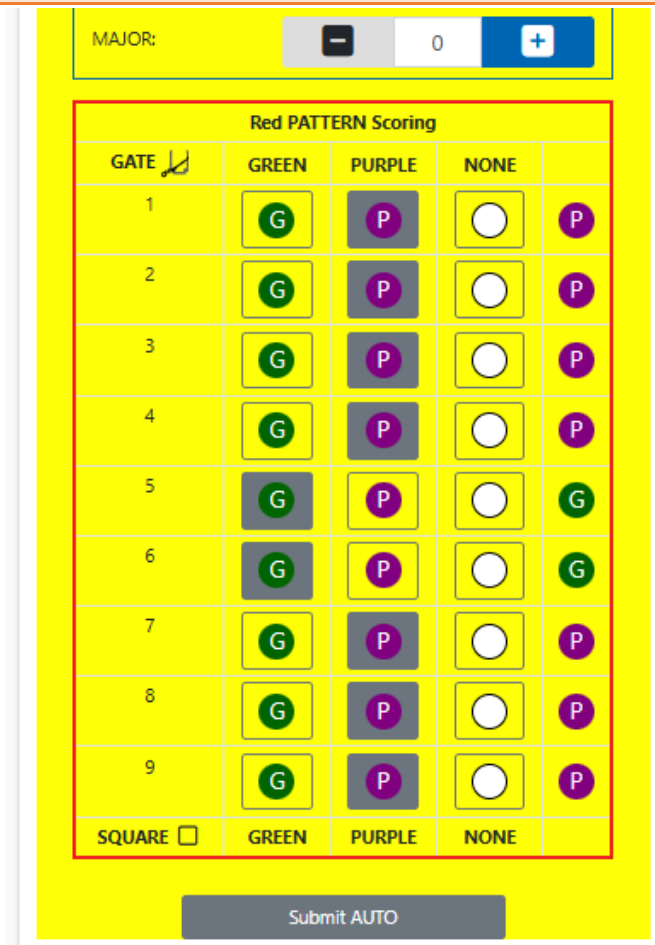
Figure 19: Example AUTO Input – Pattern Scoring Input Errors

If an impossible input is entered for pattern scoring – such as artifacts in indices 1-3, no artifact in index 4, and another artifact in index 5, as shown in Figure 19 – then the issue will be highlighted in red and must be corrected before the scoring Referee can submit AUTO.

Submit AUTO

After scoring AUTO, the Referee must click the Submit button to advance to the TELEOP screen. Even if a Referee has questions about AUTO, they should submit what they can and move on so they don't miss achievements. Referees can make edits to the AUTO scores in the Review screen following TELEOP.

The page will blink yellow if the Referee has not advanced to TELEOP in time, as shown in Figure 20.



GATE	GREEN	PURPLE	NONE	
1	G	P		P
2	G	P		P
3	G	P		P
4	G	P		P
5	G	P		G
6	G	P		G
7	G	P		P
8	G	P		P
9	G	P		P

SQUARE ☐ GREEN PURPLE NONE

Submit AUTO

Figure 20: AUTO – Late Submit

TELEOP Scoring

☰

Q1 TELEOP (Field 1)

OVERFLOW ARTIFACTS

-
0
+

CLASSIFIED ARTIFACTS

-
0
+

Red 1 BASE (3333):

No

Partial

Full

Red 2 BASE (4444):

No

Partial

Full

DEPOT ARTIFACTS

-
0
+

Red FOULS

-
1
+

MINOR:

-
3
+

MAJOR:

-
3
+

Blue FOULS

-
2
+

MINOR:

-
1
+

MAJOR:

-
1
+

Blue PATTERN Scoring

GATE	GREEN	PURPLE	NONE	
------	-------	--------	------	--

☰

Q1 TELEOP (Field 1)

OVERFLOW ARTIFACTS

-
0
+

CLASSIFIED ARTIFACTS

-
0
+

Blue 1 BASE (2222):

No

Partial

Full

Blue 2 BASE (1111):

No

Partial

Full

DEPOT ARTIFACTS

-
0
+

Red FOULS

-
2
+

MINOR:

-
3
+

MAJOR:

-
3
+

Blue FOULS

-
1
+

MINOR:

-
0
+

MAJOR:

-
0
+

Red PATTERN Scoring

GATE	GREEN	PURPLE	NONE	
------	-------	--------	------	--

Figure 21: TELEOP Scoring – Artifacts, Base, Depot, and Fouls for the Red (Left) and Blue (Right) Scoring Referees

This page is for recording TELEOP scoring. Foul counts have carried over from AUTO.

Only fouls input during AUTO will “carry over” display on the TELEOP scoring screen. Fouls are cumulative throughout the match.

No scoring achievements are cumulative through the entire match. Artifact scoring is done **live** and all other achievements are period-specific.

Revision 25-26.2

19 of 61

Artifacts

Continue to score artifacts as was done in AUTO.

See AUTO Artifact Scoring for screenshots and examples.

Base

Red 1 BASE (3333):	No	Partial	Full	Blue 1 BASE (2222):	No	Partial	Full
Red 2 BASE (4444):	No	Partial	Full	Blue 2 BASE (1111):	No	Partial	Full

Figure 22: TELEOP Scoring – Base Inputs for the Red (Left) and Blue (Right) Scoring Referees

At the end of the match (T=0:00), each scoring Referee should look at the base zone nearest them. They must record if each of the ROBOTS has met fully or partially returned criteria.

- A fully returned robot must be only supported, either directly or transitively, by the base zone.
- A partially returned robot must be partially supported either directly or transitively, by the base zone.

Referees should never enter the field to judge base scoring. Base scoring happens only at exactly T=0:00. The Referee should make their best judgement at that time and confer with other Referees as needed.

Depot

DEPOT ARTIFACTS	-	2	+	DEPOT ARTIFACTS	-	1	+
-----------------	---	---	---	-----------------	---	---	---

Figure 23: TELEOP Scoring – Depot Inputs for the Red (Left) and Blue (Right) Scoring Referees

After the field has come to rest, Referees must check the depot nearest to them and score the appropriate number of artifacts that are over the depot line.

Fouls

Referees should continue to enter any fouls communicated to them by the gameplay Referee during the match. Foul counts are shared between AUTO and TELEOP. Both scoring Referees can enter fouls for either alliance, but Referees will not see foul counts entered by other Referees.

When entering a foul, the Referee should ensure they enter the correct foul type for the correct alliance.

See AUTO Fouls for screenshots and examples.

Pattern

After the field has come to rest, artifacts on the ramp contained by the gate are recorded for pattern scoring.

Starting at the gate (first input, nearest the bottom of the ramp), record the color of each artifact directly on the ramp in the order they are on the ramp by selecting either "green" or "purple," regardless of how they got there. If only 5 artifacts are on the ramp, only 5 colors should be recorded, starting at the gate. The rest (6-9) should remain with the default "none" (white circle).

See AUTO Pattern Scoring for screenshots and examples.

Submit TELEOP

Save any Referee discussions for the review phase, during which AUTO, TELEOP, and fouls can be edited. Clicking "Submit TELEOP" will transition to the Review page.

If the Referee has not submitted TELEOP within 10 seconds of the period ending, the page will flash yellow, as shown in Figure 25.

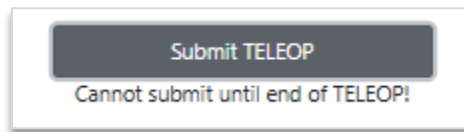


Figure 24: TELEOP - Early Submit

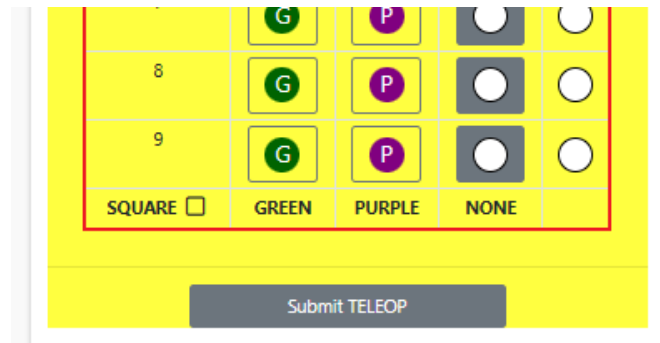


Figure 25: TELEOP – Late Submit

Scoring Review

☰

Q1 Review (Field 1)

Pre-MATCH

Blue Alliance Teams:

Team 2222
Present:

No
Team

No
Robot

Present

Team 1111
Present:

No
Team

No
Robot

Present

AUTO Scores

OVERFLOW ARTIFACTS

-

0

+

CLASSIFIED ARTIFACTS

-

3

+

Blue 1 LEAVE (2222):

No

Yes

Blue 2 LEAVE (1111):

No

Yes

Blue PATTERN Scoring

GATE	GREEN	PURPLE	NONE	
------	-------	--------	------	--

☰

Q1 Review (Field 1)

Pre-MATCH

Red Alliance Teams:

Team 3333
Present:

No
Team

No
Robot

Present

Team 4444
Present:

No
Team

No
Robot

Present

AUTO Scores

OVERFLOW ARTIFACTS

-

0

+

CLASSIFIED ARTIFACTS

-

0

+

Red 1 LEAVE (3333):

No

Yes

Red 2 LEAVE (4444):

No

Yes

Red PATTERN Scoring

GATE	GREEN	PURPLE	NONE	
------	-------	--------	------	--

Figure 26: Review Scoring – Pre-Match and AUTO for the Red (Left) and Blue (Right) Scoring Referees

The Review page for each scoring Referee, as shown in Figure 26 through Figure 28, lists the scoring achievements and fouls entered by that scoring Referee for both AUTO and TELEOP periods. This page is a “shopping cart” for the Referee to review and ensure that all inputs are correct before the final submission.

Any edits done here will not reflect in the live scores shown on the displays, but will reflect in the final, posted results. Confirm with the gameplay Referee and if needed, the Head Referee, that the correct fouls have been input correctly. Fouls for AUTO and TELEOP are combined and shown at the bottom of the review page.

Only the Head Referee or Scorekeeper may enter yellow or red cards or record ranking point violations. If any violations resulting in a card or ranking point adjustment has occurred, it must be communicated to the Head Referee and confirmed and entered by them.

Once each scoring Referee has finalized the scores, they should click "Submit Final Scores."

If there is an input error, including if the pattern for either AUTO or TELEOP has been incorrectly input such that the artifacts are not contiguous, then the error will be highlighted with an instructional note and final scores cannot be submitted until this error is resolved, as shown in Figure 29.







































Once both scoring Referees submit their scores, only the scorekeeper can edit the scores. The Head Referee may only continue to edit fouls and violations if they have held the match for review prior to both scoring Referees submitting their scores.

If a mistake is identified after submitting, the Referee should inform the Head Referee as soon as possible, who can then communicate with the scorekeeper and take appropriate action to rectify scores.

Special Scoring Inputs for Some DECODE Violations

Specific exceptions to "score what you see" are outlined below. It is advised that these are input as achieved during the match, and adjusted post-match during Scoring Review:

- **G401** – if a G401 violation occurs that renders an alliance ineligible for pattern points in Auto, Scoring Referees do not enter pattern achievement in Auto (but **DO** enter artifacts as overflow/classified).
- **G427** – if a G427 violation occurs, Scoring Referees manually add base scoring to robot(s) impacted by the G427 violation.

Blue PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	

TELEOP Scores

OVERFLOW ARTIFACTS  6 

CLASSIFIED ARTIFACTS  23 

Red 1 BASE (3333): No Partial Full

Red 2 BASE (4444): No Partial Full

DEPOT ARTIFACTS  2 

Red PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	

TELEOP Scores

OVERFLOW ARTIFACTS  3 







































CLASSIFIED ARTIFACTS  14 









Blue 1 BASE (2222): No Partial Full

Blue 2 BASE (1111): No Partial Full

































DEPOT ARTIFACTS  1 









Figure 27: Review Scoring – AUTO Pattern & TELEOP for the Red (Left) and Blue (Right) Scoring Referees

Blue PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	

Red FOULS			
MINOR:		2	
MAJOR:		3	
Blue FOULS			
MINOR:		2	
MAJOR:		1	
































Submit Final Scores





Red PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	





Red FOULS			
MINOR:		2	
MAJOR:		4	
Blue FOULS			
MINOR:		3	
MAJOR:		0	

Submit Final Scores

Figure 28: Review Scoring – TELEOP Pattern & Fouls for the Red (Left) and Blue (Right) Scoring Referees

Red PATTERN Scoring				
GATE 	GREEN	PURPLE	NONE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
SQUARE 	GREEN	PURPLE	NONE	

Red FOULS
MINOR:  2 
MAJOR:  4 

Blue FOULS
MINOR:  3 
MAJOR:  0 

Submit Final Scores

Artifacts must be contiguous in the teleop classifier

Figure 29: Review Scoring – Example Input Error

Resources

General resources that are useful for events are included in the “Resources” for all logins. This includes the latest version of the Competition Manual.

In order to access resources, tap the 3 bars in the top right corner of the tablet to expand the header. Select “Resources.” PDF resources will be opened in the device’s default PDF viewer.

It is important to determine if a PDF viewer has been installed on your tablet device before matches begin, as not all tablets have PDF viewers installed by default.

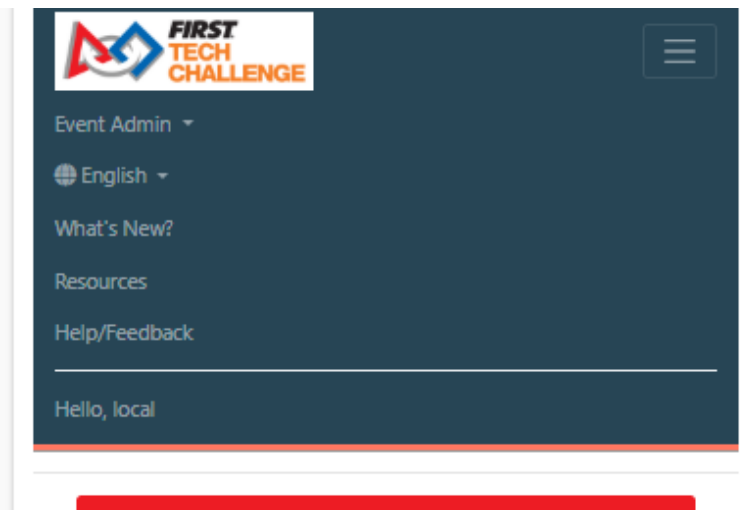


Figure 30: FTC Live Expanded Header (3 bars “Hamburger menu” at top right)



Figure 31: FTC Live Resources – Example

Head Referee View

Overview

The Head Referee view is intended to provide the Head Referee a concise overview of the event and specific functions:

- Monitor and review status and scoring achievements of the active match
- Input fouls and cards for the active match
- Hold active match results from being submitted
- Review and add notes for teams to track escalating violations or concerns
- Review and modify notes for Head Referee hosted meetings
- Start and monitor a G301 violation timer
- Review match scoresheets from previous matches
- Reference resources

The Head Referee view **will not allow** the Head Referee to:

- Input scoring achievements for an active match
- Modify scores or violations from matches that have already been submitted
- Start randomization
- Start a match
- Post scores from a submitted match

Access Head Referee View

Once logged in to a valid Head Referee login, the Head Referee must navigate to the Referee Score Tracking category shown in Figure 32 and select Head Referee.

At a multi-field event, the Head Referee must select the correct field(s) in order to view the appropriate matches, as shown in Figure 33.

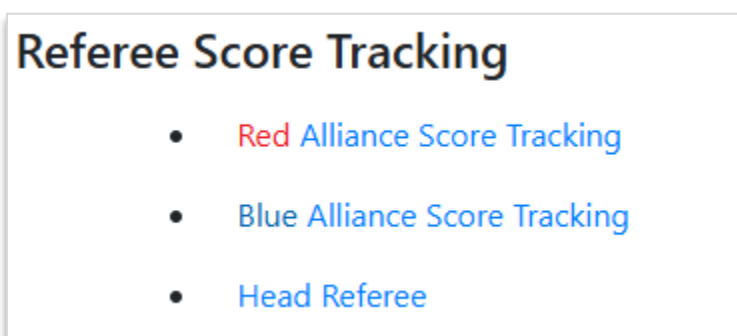


Figure 32: Head Referee View Option

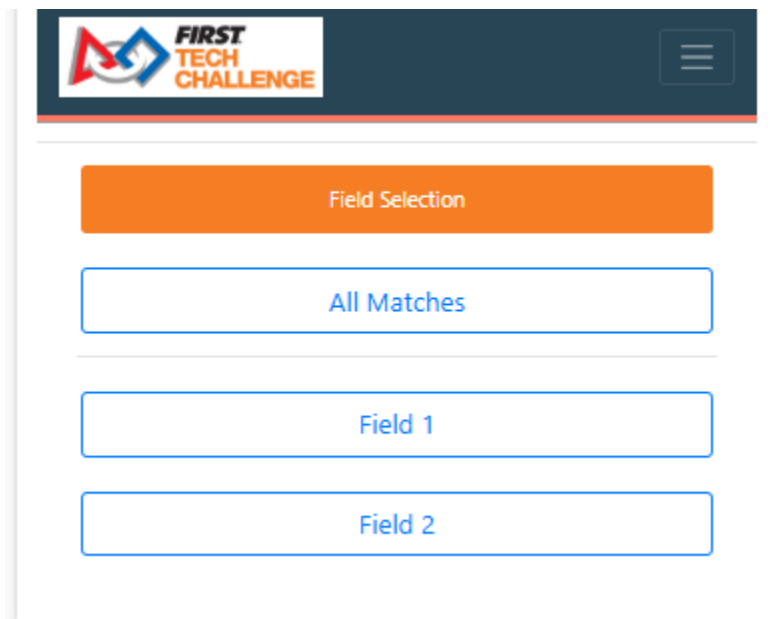


Figure 33: Head Referee Field Selection

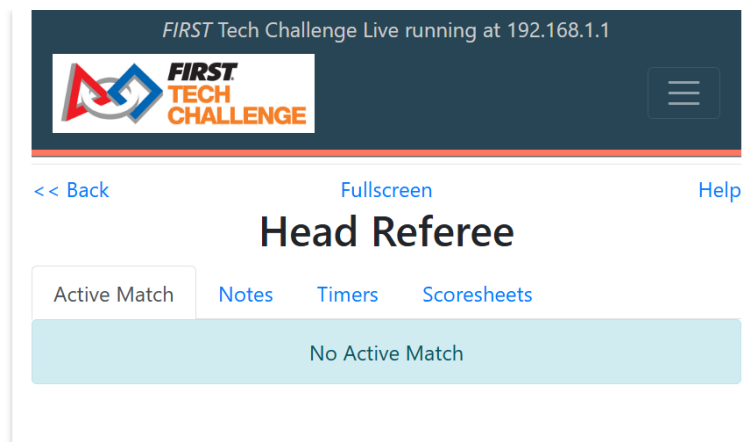


Figure 34: Head Referee Tablet Initial View

Head Referee Notes

The Notes tab displays multiple types of notes for Head Referee use.

All Head Referee Notes are shared between any Head Referees at the event and will be visible to other Head Referees within the same division. To that point: notes should be clear, concise, and effective in communicating escalating violations and other key information. Match and team notes should refer to specific rule violations (e.g., "G416"), when applicable.

If the audio situation at the venue allows, the Head Referee can use speech-to-text to quickly input notes. These may require some editing to clarify terms.

Match Notes

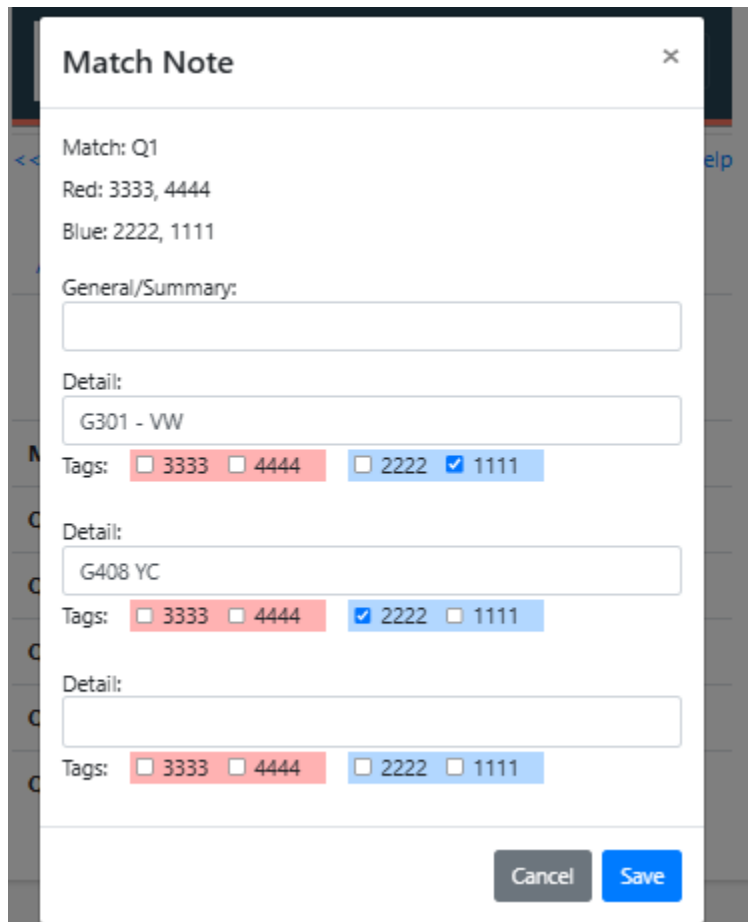
The Head Referee must record escalating violations and violations that result in impact to ranking point eligibility, ranking point awards, yellow cards, and red cards during the event, per the Head Referee Manual. They may use the Head Referee Notes for this or an independent note taking tool (such as paper and pen).



Figure 35: Head Referee Notes by Match

Figure 35 shows the notes by the match. Matches with multiple notes will show that multiple notes are present in the overview. All notes from the match in the detailed view.

Tap on the match row in order to view the notes in more detail or edit the note, as shown in Figure 36.

A screenshot of a "Match Note" dialog box. The dialog has a title bar with a close button (X). Inside, it displays match information: "Match: Q1", "Red: 3333, 4444", and "Blue: 2222, 1111". There are three sections for notes, each with a "Detail:" label and a text input field, followed by "Tags:" with checkboxes for the four teams. The first section has "G301 - VW" in the detail field, with checkboxes for 3333, 4444, 2222, and 1111 (1111 is checked). The second section has "G408 YC" in the detail field, with checkboxes for 3333, 4444, 2222 (checked), and 1111. The third section has an empty detail field and checkboxes for 3333, 4444, 2222, and 1111. At the bottom right are "Cancel" and "Save" buttons.

Match Note

Match: Q1
Red: 3333, 4444
Blue: 2222, 1111

General/Summary:

Detail:

Tags: ☐ 3333 ☐ 4444 ☐ 2222 ☒ 1111

Detail:

Tags: ☐ 3333 ☐ 4444 ☒ 2222 ☐ 1111

Detail:

Tags: ☐ 3333 ☐ 4444 ☐ 2222 ☐ 1111

Cancel Save

Figure 36: Head Referee Match Note Detail/Edit – Q1 Example

When making notes on a match, it is beneficial to check the box for the team numbers involved in a notable incident or that incurred an escalating violation that should be tracked. This allows the note to be easily cross-referenced in team notes. Team number mentions in the text of the note are not automatically cross referenced.

Team Notes



Figure 37: Head Referee Notes by Team Example

Team notes are used to find or edit notes on a team. Team notes do not propagate between events.

Tap on the team number row in order to view all notes on the team in more detail or edit the notes on the team. From the team summary of notes, tapping on a match will enable input for any team in the match. See Figure 36 as an example.

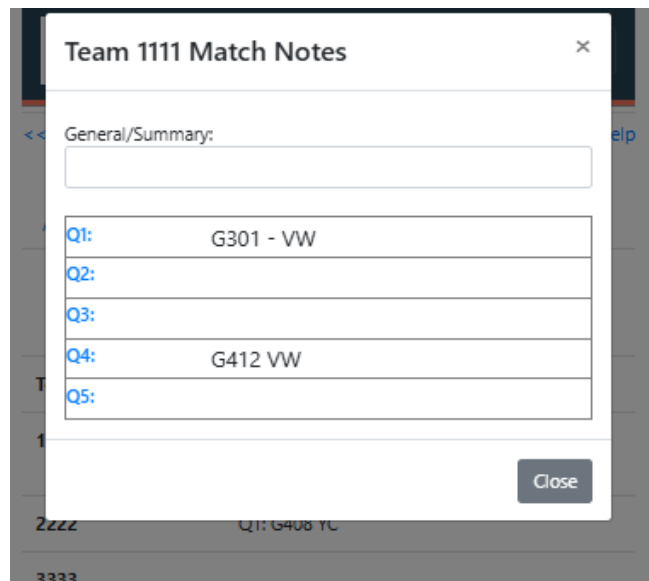
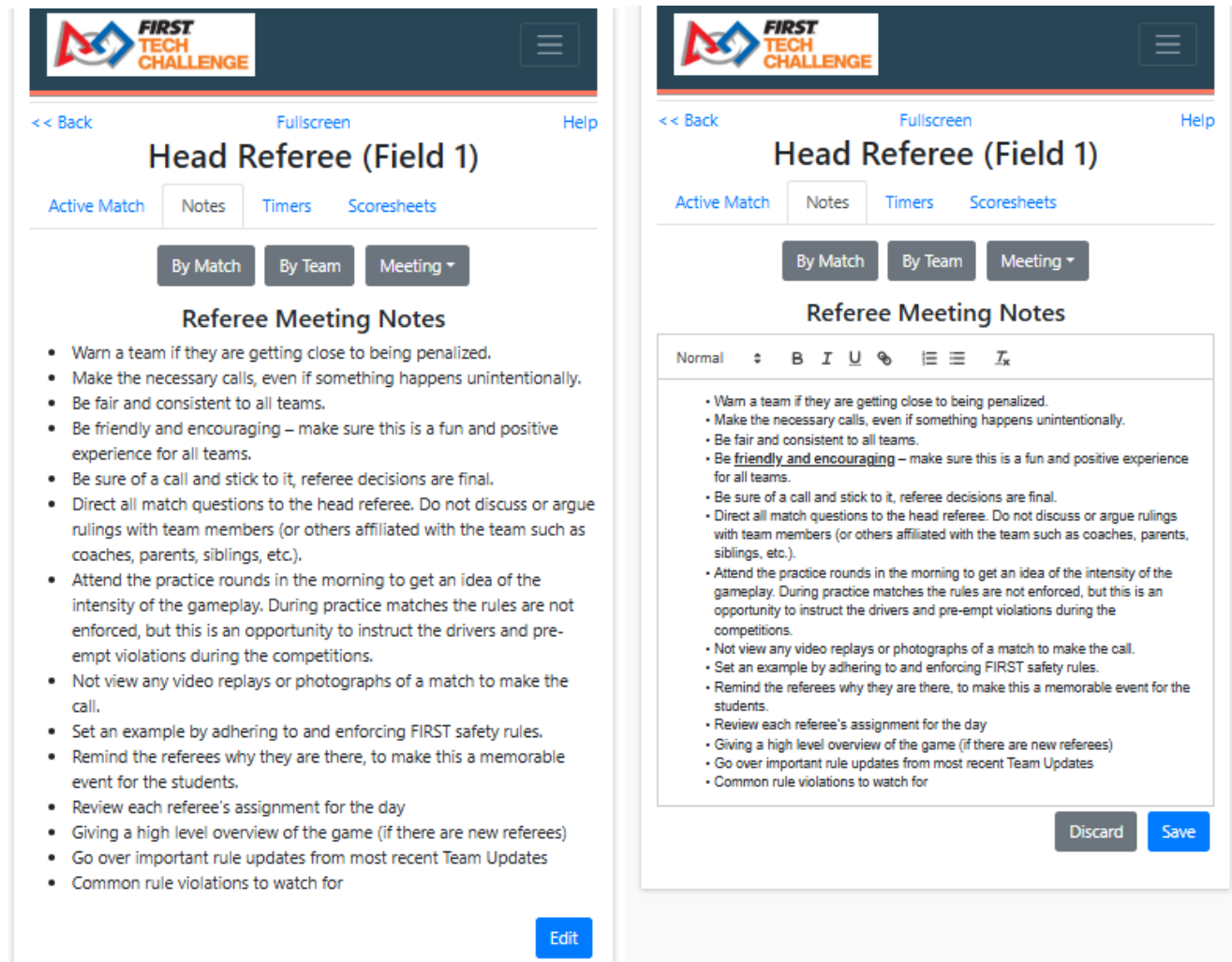


Figure 38: Head Referee Notes by Team – Team 1111 Detail Example

Meeting Notes

Meeting notes include boilerplate templates for key talking points for the Referee Meeting, the Drivers' Meeting, the Alliance Captains' Meeting, and a blank page for "Other."

These notes are a valuable starting point for talking points during these key, Head Referee led meetings. All of these can be edited for the current event and saved for future reference.



The image displays two side-by-side screenshots of the FIRST Tech Challenge web application interface, specifically the 'Head Referee (Field 1)' page. Both screenshots show the same header with the FIRST Tech Challenge logo and navigation links like '< Back', 'Fullscreen', and 'Help'. Below the header, there are tabs for 'Active Match', 'Notes', 'Timers', and 'Scoresheets'. Under the 'Notes' tab, there are buttons for 'By Match', 'By Team', and 'Meeting'. The main content area is titled 'Referee Meeting Notes'. In the left screenshot, this section contains a list of 14 bullet points providing talking points for the referee meeting. In the right screenshot, the same list of bullet points is shown, but it is enclosed in a rich text editor box with a toolbar at the top (including options for Normal, Bold, Italic, Underline, Link, Unlink, Bulleted List, Numbered List, and Indent) and 'Discard' and 'Save' buttons at the bottom right. An 'Edit' button is visible at the bottom right of the left screenshot.

Figure 39: Example of Referee Meeting Notes & Editing Meeting Notes

Timers

On the timer tab, as shown in Figure 40, the match timing is displayed, including the current time, when the upcoming matches are scheduled to start, and if that start time has passed without the match starting with the note of *"Match start time has passed!"*

The scheduled time for future matches will not update until the prior match has ended.

G301 – Delay of Match Violation Timer

The guidance on when to initiate a G301 timer is found in the Competition Manual. The Head Referee should use the timing information found in the Head Referee tablet as one of several factors in determining if a G301 timer should be started. **Just because the G301 timer is available to be started does not mean it should be started.**

The timer feature enables the Head Referee to quickly judge if the expected match start time has passed, in addition to other G301 considerations and if a G301 timer can be started. The timer cannot be started unless the timing conditions specified in G301 are met – it will be greyed out. However, the Head Referee should ensure that all G301 violation conditions, including the timing condition, are met prior to starting the G301 timer.

To start the timer, the Head Referee should tap the green "Start 2-Minute Warning" button. The 2-minute timer will then display in red text on the timer tab of the Head Referee tablet, counting down to 0:00. The timer can be restarted with the red "Restart 2-Minute Warning" button shown in Figure 41, if appropriate.

When a G301 timer has been activated by the Head Referee on the field, the Referee scoring tablets will indicate that a timer is active, with the current timer countdown displayed in a pink header, as shown in Figure 42. Tapping this header will display the timer in a full-screen mode, as shown in Figure 43. This is useful to display near the team to indicate to them how much time is left before an escalation of G301 will occur.

FIRST Tech Challenge Live running at 192.168.1.1

FIRST TECH CHALLENGE

<< Back Fullscreen Help

Head Referee

Active Match Notes **Timers** Scoresheets

G301 Timing - Q2

Red: 5555, 7777 Blue: 6666, 1111

Match start time has passed! **Start 2-Minute Warning**

All Timing

Current time: 10:52:10

M	Type	Start	Length	End	Left
Q2	Scheduled Time			10:52:10	0:00
Q3	Scheduled Time			10:54:32	0:00
Q4	Scheduled Time			10:56:54	0:00

Figure 40: Head Referee Timers Tab

FIRST Tech Challenge Live running at 192.168.1.1

FIRST TECH CHALLENGE

<< Back Fullscreen Help

Head Referee

Active Match Notes **Timers** Scoresheets

G301 Timing - Q2

Red: 5555, 7777 Blue: 6666, 1111

2-Minute Warning Active: **1:40** **Restart 2-Minute Warning**

All Timing

Current time: 10:52:52

M	Type	Start	Length	End	Left
Q2	G301 Violation	10:52:32	2:00	10:54:32	1:40
Q2	Scheduled Time			10:56:54	0:00
Q3	Scheduled Time			10:59:16	0:00
Q4	Scheduled Time			11:01:38	0:00

Figure 41: Head Referee Timer Tab – Active 2-Minute Warning Timer

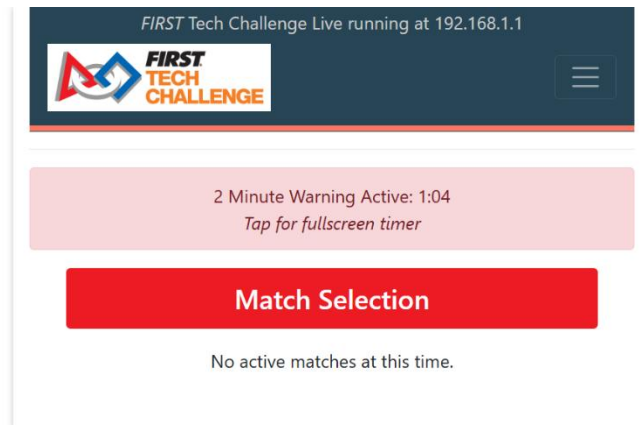


Figure 42: Referee Tablet when G301 2-minute timer is active

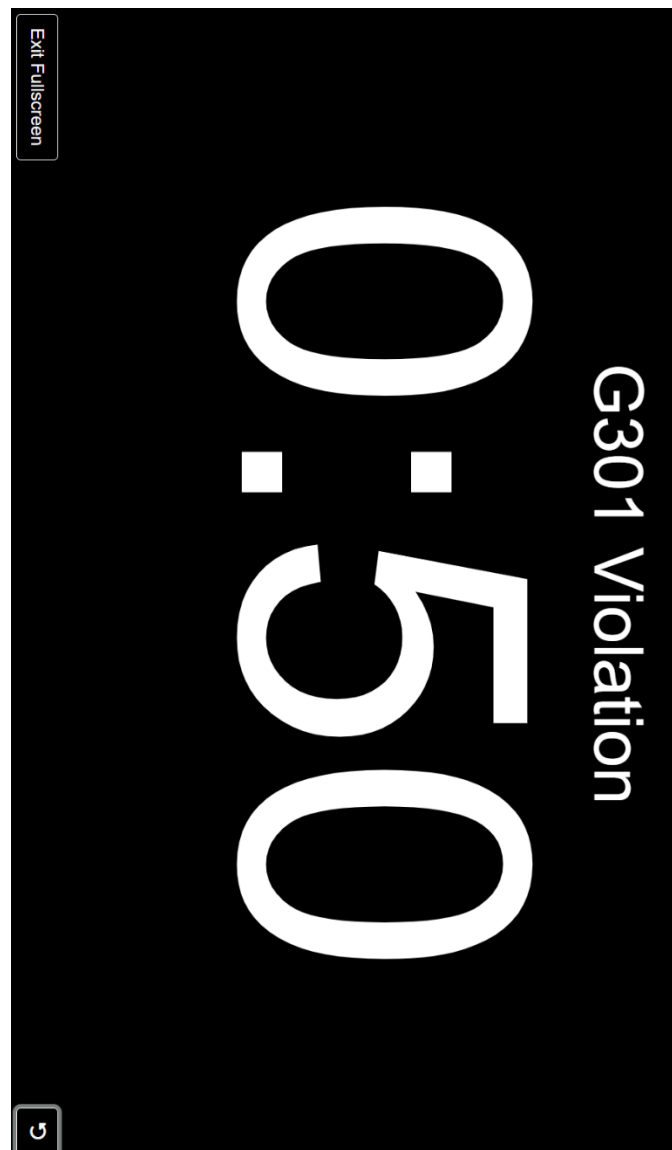


Figure 43: Referee Tablet Fullscreen G301 Timer

Scoresheets


The Head Referee can display scoresheets for previous matches directly on their tablet to aid in Question Box and Referee conference discussions.

Inputs include Match number – which can be filtered to just Playoff Matches, and Red Alliance, Blue Alliance, or both Alliances. Confirm the Match number, alliance color, and team number are correct when reviewing a scoresheet.

Scoresheets, such as the one in Figure 44, are designed to display the quantity and type of scoring achievements and fouls, but not the scores or ranking points earned by each alliance. This should help the conversations between Head Referees and others remain objective.

Any changes to scoring achievements, fouls, or other match results must be input through the Match Control Screen operated by the Scorekeeper.

FIRST Tech Challenge Live running at 192.168.1.1


☰


<< Back
Fullscreen
Help

Head Referee

Active Match
Notes
Timers
Scoresheets


Match: Q1
Playoff Only: ☐

☒ Red
☐ Blue
☐ Both



Red Alliance

Match: Q1 Field: 1



AUTO Period

ARTIFACTS	ROBOT	None	LEAVE
CLASSIFIED 3	1111	<input type="checkbox"/>	<input checked="" type="checkbox"/>
OVERFLOW 0	2222	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PATTERN

GATE	1	2	3	4	5	6	7	8	9	SQUARE
GREEN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GREEN
PURPLE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PURPLE
NONE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NONE

TELEOP Period

ARTIFACTS	BASE	None	Partial	Full
CLASSIFIED 9	1111	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
OVERFLOW 2	2222	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEPOT 1				

PATTERN

GATE	1	2	3	4	5	6	7	8	9	SQUARE
GREEN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GREEN
PURPLE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PURPLE
NONE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NONE

Figure 44: Example Scoresheet (Red Alliance)

Active Match

Overview

When a match on the appropriate field is active, the active match tab will display match information, status, scoring achievements, and fouls/violations for the Head Referee.

AUTO Scores and TELEOP Scores sections should be expanded for complete viewing, but may be collapsed for a greater focus on violations. Additionally, these sections may be toggled between for devices with small screens.

The Head Referee Active Match tab condenses a large amount of information and multiple functions about the current match into a single screen:

- General Match Information: Inform the Head Referee of the current status of the match

-
- General Head Referee Functions: Allow basic operations for the display, notes, and match.
 - Fouls: Allow the Head Referee to monitor Referee foul inputs and input minor and major fouls.
 - AUTO Score Summary: Provide a brief overview of AUTO scoring achievements.
 - TELEOP Score Summary: Provide a brief overview of TELEOP scoring achievements.
 - Ranking Point Violations: Allow input of Ranking Point impacting fouls and tracking.
 - Team List & Cards: Allow viewing of prior input for teams participating in the match and assignment of yellow and/or red cards.

Head Referee (Field 1)

Active Match
Notes
Timers
Scoresheets

Qualification 1



Match Status: Review
Randomization: MOTIF 1 (ID 21)

G
P
P
P



Flip Alliances
Review Required?
Add Note

Blue	Referee Status	Red
REVIEW	Scoring Phase	TELEOP
3	MINOR FOULS	6
3 / 0	Total	3 / 2
<div style="display: flex; align-items: center; justify-content: center;"> - 0 + </div>	Foul input: R / B HR MINOR FOULS	<div style="display: flex; align-items: center; justify-content: center;"> - 1 + </div>
4	MAJOR FOULS	4
0 / 2	Total	2 / 2
<div style="display: flex; align-items: center; justify-content: center;"> - 2 + </div>	Foul input: R / B HR MAJOR FOULS	<div style="display: flex; align-items: center; justify-content: center;"> - 0 + </div>

▲ AUTO Scores ▲

6 2  ✓/✓	CLASSIFIED OVERFLOW PATTERN ROBOT Location	9 2  x/✓
---	---	--

▲ TELEOP Scores ▲

17 5 1  Full / Full	CLASSIFIED OVERFLOW DEPOT PATTERN ROBOT Location	9 2 2  Partial / Full
---	--	--

RP Violations
Enter RP Violations

2222 1

1111 2

Teams / Cards

Assign Cards

3333

4444

Figure 45: Head Referee Active Match – Overview with Example Inputs

General Match Information

The Active Match tab will display the active match on the relevant field, as shown in Figure 46.

- Match Number
- Field Number
- Participating Teams (at the bottom)
 - If the team number is shown on a yellow background, the team is carrying a yellow card into the match.
 - If the team number is shown with a speech bubble (), there are notes on the team from prior matches.
- Match Status
 - Unplayed, Randomized, AUTO, Transition, TELEOP, Review
- Randomization Motif
 - If this is blank, randomization has not occurred.
 - Once randomization has occurred, the randomization motif will be displayed gate to square with icons displaying GPP, PGP, or PPG and the motif number and AprilTag ID, as shown in Figure 10.
- Referee Status
 - Displays the current status of both the blue and red scoring Referee tablets for the current match.
 - These will display green and “READY” when scoring Referees have input all Pre-Match Setup information and are on the Ready screen, as indicated for red in Figure 47.
 - These will display in yellow if the scoring Referee is not on the appropriate screen for the match period. For example, in Figure 45 red is still on TELEOP, as indicated by the yellow background behind “TELEOP,” even though the match is complete. This will also occur if the Referee is still on the AUTO screen during TELEOP or on the Pre-Match Setup page after the match has been randomized.

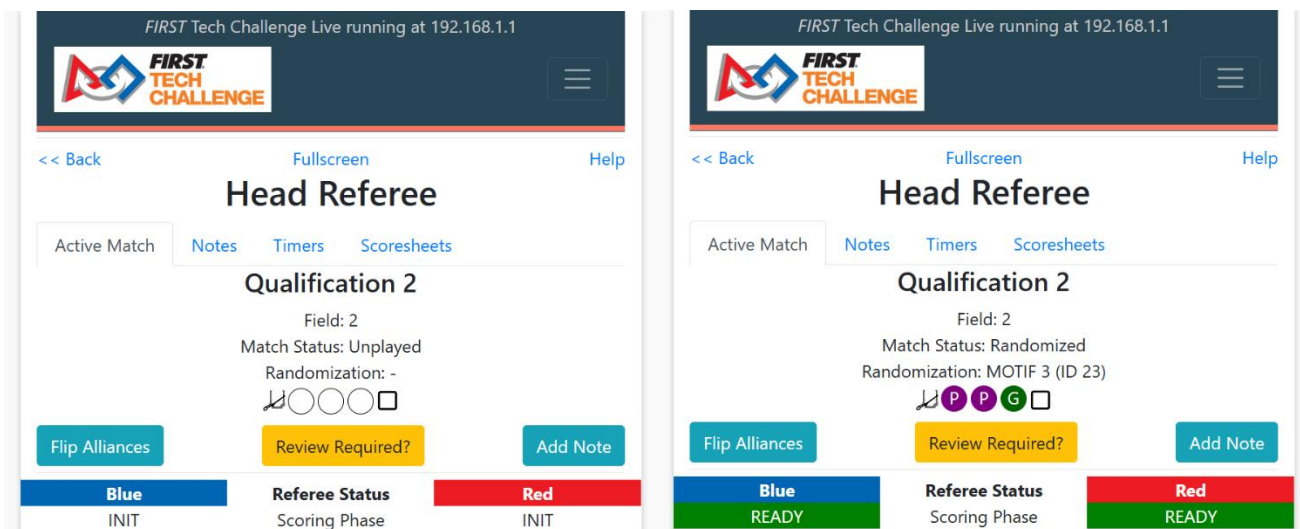


Figure 46: Head Referee Active Match – Match Information & Head Referee Functions: Initial Setup & Randomized

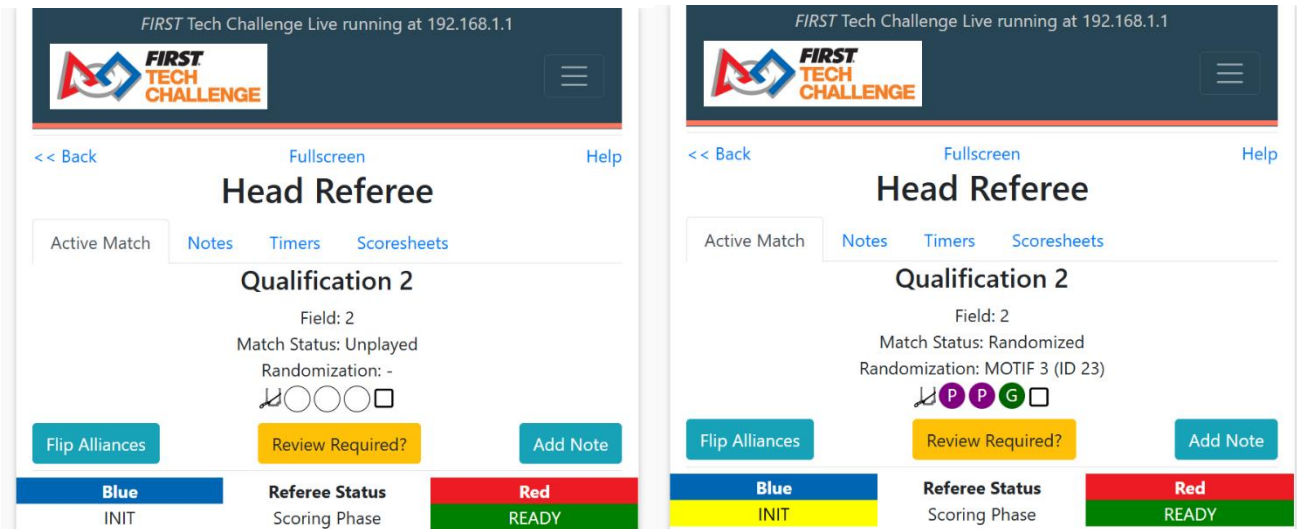


Figure 47: Head Referee Active Match – Mixed Referee Status Examples

General Head Referee Functions

These functions allow the Head Referee to change their display, add notes and hold the match results from being submitted.

- Flip Alliances
 - Tapping this button will flip the red & blue alliances, as displayed on the Head Referee tablet.
 - This function is primarily intended to enable the Head Referee to change the display in order to optimize their intake of information based on where they are standing around the field.
- Add Note
 - This will open the Match Notes pop-up for the current match, enabling quick entry of relevant notes.
- Review Required?
 - Tapping this orange button will hold match results from being submitted to the scorekeeper, regardless of the state of the scoring Referee tablets.
 - “Review Required?” should not be regularly used. It should always be used in the following situations:
 - A scoring Referee has submitted their scoring achievements and/or fouls with an error that should be resolved before scores are posted.
 - The Head Referee assigns cards to one or more teams.
 - The Head Referee assesses a Ranking Point impacting violation.
 - The Head Referee identifies a complex issue that will require time to adjudicate.

Fouls

The Head Referee can view all fouls input by all Referees for the active match and can add minor or major fouls for both alliances using the inputs for each type of foul, as shown in Figure 48.

When entering a foul, the Referee should ensure they enter the correct foul type for the correct alliance.

The Head Referee cannot remove fouls input by the scoring Referees from the Head Referee tablet. Removing fouls input by others must be done on the relevant Scoring Referee tablet or with the Scorekeeper.

To avoid double-counting fouls, Referees should communicate who is inputting the foul(s) if multiple Referees see the foul occur.

The fouls are always displayed in the order total followed by R/B and the HR input indicating:

- **Total** = the total number of fouls of that type on the alliance, which should equal the sum of the below items:
 - R = the number of fouls of that type put in by the scoring Referee with the red tablet,
 - B = the number of fouls of that type put in by the scoring Referee with the blue tablet, &
 - HR = the number of fouls of that type put in by the Head Referee, via the inputs.

The Head Referee should be aware of the total quantity of fouls and violations submitted for each match and work with the Referee crew to ensure that all violations are counted exactly once.

Blue	Referee Status	Red
REVIEW	Scoring Phase	REVIEW
3	MINOR FOULS	6
3 / 0	Total	3 / 2
<div style="display: flex; justify-content: space-around; align-items: center;"> - 0 + </div>	Foul input: R / B	<div style="display: flex; justify-content: space-around; align-items: center;"> - 1 + </div>
	HR MINOR FOULS	
4	MAJOR FOULS	4
0 / 2	Total	2 / 2
<div style="display: flex; justify-content: space-around; align-items: center;"> - 2 + </div>	Foul input: R / B	<div style="display: flex; justify-content: space-around; align-items: center;"> - 0 + </div>
	HR MAJOR FOULS	

Figure 48: Head Referee Active Match – Fouls

Additional Violations and Cards

Scoring Referees cannot input Ranking Point (RP) violations or cards. These must be input by the Head Referee or the Scorekeeper.

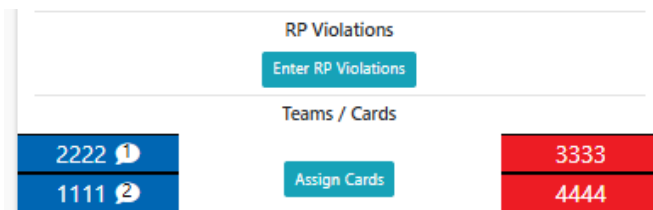
Referees should generally not attempt to manipulate scoring achievements in order to assess violations that award RP or cause an alliance to be ineligible for RP.

Specific exceptions for DECODE are:

G401 – if a G401 violation occurs that renders an alliance ineligible for pattern points in Auto, scoring Referees do not enter pattern achievement in Auto (but DO enter artifacts as overflow/classified).

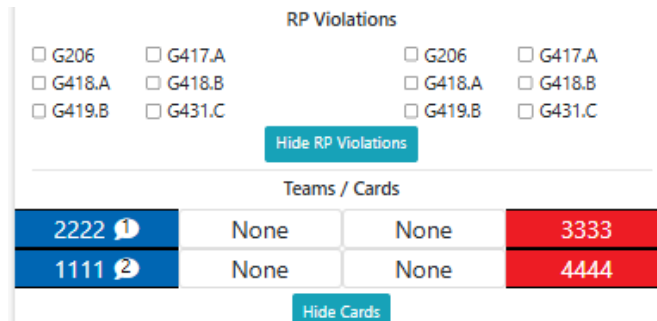
G427 – if a G427 violation occurs, scoring Referees manually add base scoring to robot(s) impacted by the G427 violation.

At the start of every match, the RP Violations and Cards will be hidden on the Head Referee tablet to prevent accidentally selecting these items, as in Figure 49. The Head Referee must tap either the blue “Enter RP Violations” or “Assign Cards” in order to enter either of these violations. Figure 50 shows both of these sections unhidden.



The interface shows a section titled "RP Violations" with a blue button labeled "Enter RP Violations". Below this is a section titled "Teams / Cards" with two columns of team numbers. The left column has blue buttons for "2222" (with a 1 icon) and "1111" (with a 2 icon). The right column has red buttons for "3333" and "4444". A blue button labeled "Assign Cards" is positioned between the two columns.

Figure 49: Head Referee – Additional Violations (Hidden)



The interface is expanded. The "RP Violations" section now includes a list of checkboxes for various violations: G206, G417.A, G418.A, G418.B, G419.B, G431.C, G206, G417.A, G418.A, G418.B, G419.B, and G431.C. A blue button labeled "Hide RP Violations" is below the list. The "Teams / Cards" section now includes a table with the team numbers and "None" entries. A blue button labeled "Hide Cards" is at the bottom.

Teams / Cards			
2222 1	None	None	3333
1111 2	None	None	4444

Figure 50: Head Referee – Additional Violations, Expanded

Ranking Point Violations

In order to be succinct, the RP violations are indicated by rule number and sub-section. The Head Referee must understand what rule has been violated and check the correct box for the violation for the alliance that violated the rule. Check the box for the team that violated the rule. The scoring system will apply the correct scoring achievement or eligibility adjustment to the match results. These are not final until the review has been submitted.

Yellow and Red Cards

The Head Referee should assign cards by tapping the box adjacent to the appropriate team number. The box will cycle through None > YC > 2nd YC > RC > None. These are not final until the review has been submitted.

Confirm notes on the team number to ensure escalation is happening correctly. A note must be recorded for each card given.

- None: No Yellow Card assigned during the Active Match
- YC: The first Yellow Card is assigned during the event phase
- 2nd YC: A second (or additional subsequent) Yellow Card is assigned during the event phase
- RC: a Red Card is assigned during the event phase

The Head Referee must still make the appropriate displays of the Cards to the team(s) that are assigned cards after entering them in the tablet.

Review Required

Once either an RP violation has been checked, or a card has been selected, the Head Referee tablet is automatically put into “Review Required” (green box).

The Head Referee may also manually put the tablet into “Review Required” by tapping the orange button at the center top of the Head Referee tablet, as shown in Figure 45. The orange box will turn green, as shown in Figure 51.

If the match is in Review for any reason by the Head Referee, the Head Referee must tap the blue “Submit Review” at the bottom of their screen in order to submit the match scores. This is only available **after** both scoring Referees have submitted their scores.

Note the Scorekeeper screen shown in Figure 52.

Re-Randomizing

Guidance on re-randomizing is provided in the [Head Referee Manual](#). The Scorekeeper is provided with the warning in Figure 53 if randomization is re-done for a match.

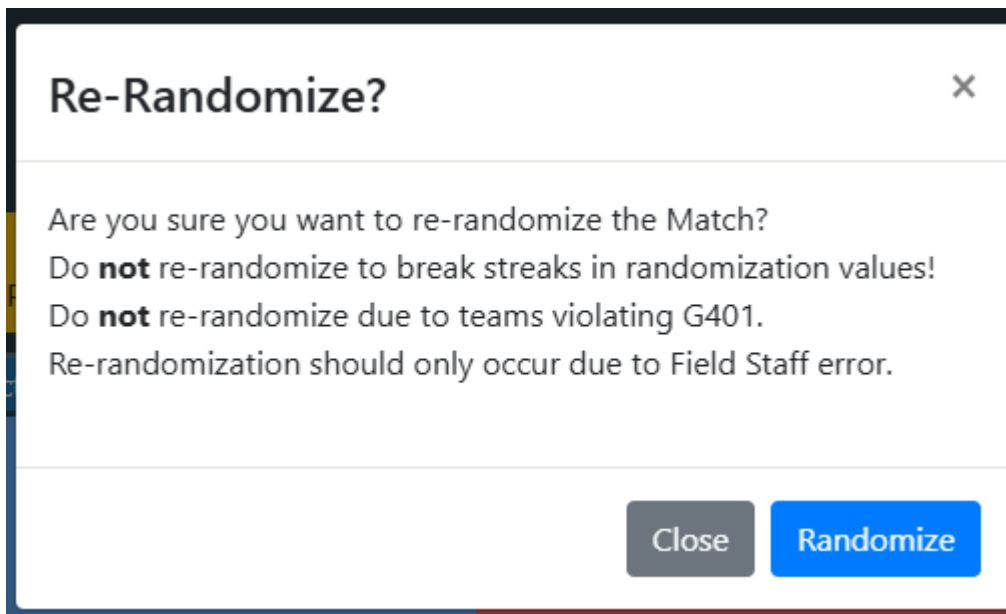


Figure 53: Scorekeeper Prompt when Re-randomizing a Match

Event Day Support

Please utilize the tools at the event's disposal, including:

- Key Volunteers at the event who are familiar with FTC-Live
- [FTC-Live Setup Guide](#)
- [Referee Scoring Tablet Guide](#) (this document)

Additional event day support of issues with the scoring system can be found through the Scorekeeper's Match Control page, on the Help tab.

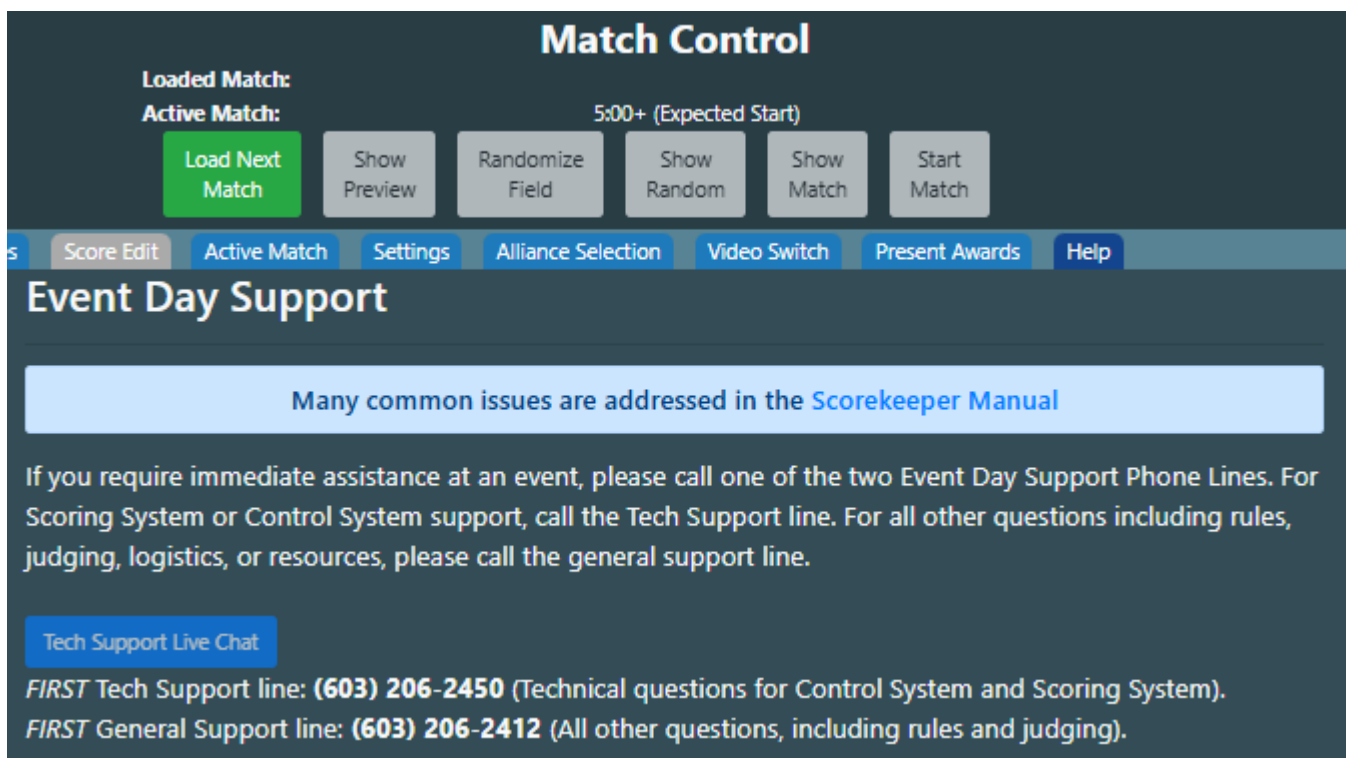
The screenshot shows the "Match Control" interface. At the top, it says "Match Control" in large white letters. Below that, it displays "Loaded Match:" and "Active Match:" with a timer showing "5:00+ (Expected Start)". There are several buttons: "Load Next Match" (green), "Show Preview", "Randomize Field", "Show Random", "Show Match", and "Start Match". A navigation bar at the bottom includes tabs for "Score Edit", "Active Match", "Settings", "Alliance Selection", "Video Switch", "Present Awards", and "Help". Below the navigation bar, the section "Event Day Support" is highlighted. It contains a light blue box with the text "Many common issues are addressed in the [Scorekeeper Manual](#)". Below this, a paragraph states: "If you require immediate assistance at an event, please call one of the two Event Day Support Phone Lines. For Scoring System or Control System support, call the Tech Support line. For all other questions including rules, judging, logistics, or resources, please call the general support line." A blue button labeled "Tech Support Live Chat" is also present. At the bottom, two phone numbers are listed: "FIRST Tech Support line: (603) 206-2450 (Technical questions for Control System and Scoring System)." and "FIRST General Support line: (603) 206-2412 (All other questions, including rules and judging)."

Figure 54: Event Day Support Information

Appendix A: Gameplay Referee Entry (Optional)

Events that use penalty Referee devices must be familiar with Appendix A: Gameplay Referee Entry (Optional) (this section) of the Referee Scoring Tablet Guide.

This option was created to streamline Referee logistics during a match. However, it does not remove the requirements that Referee crews call fouls live, input fouls live, or communicate during a match.

Device Setup

The Scorekeeper must enable the Penalty Referee Tablets the Settings tab of the Match Control Screen by checking the box next to “Enable Penalty Referee Tablets,” as shown in Figure 55. The Head Referee, Scorekeeper, and Referee crew must be aware of the use of this option.

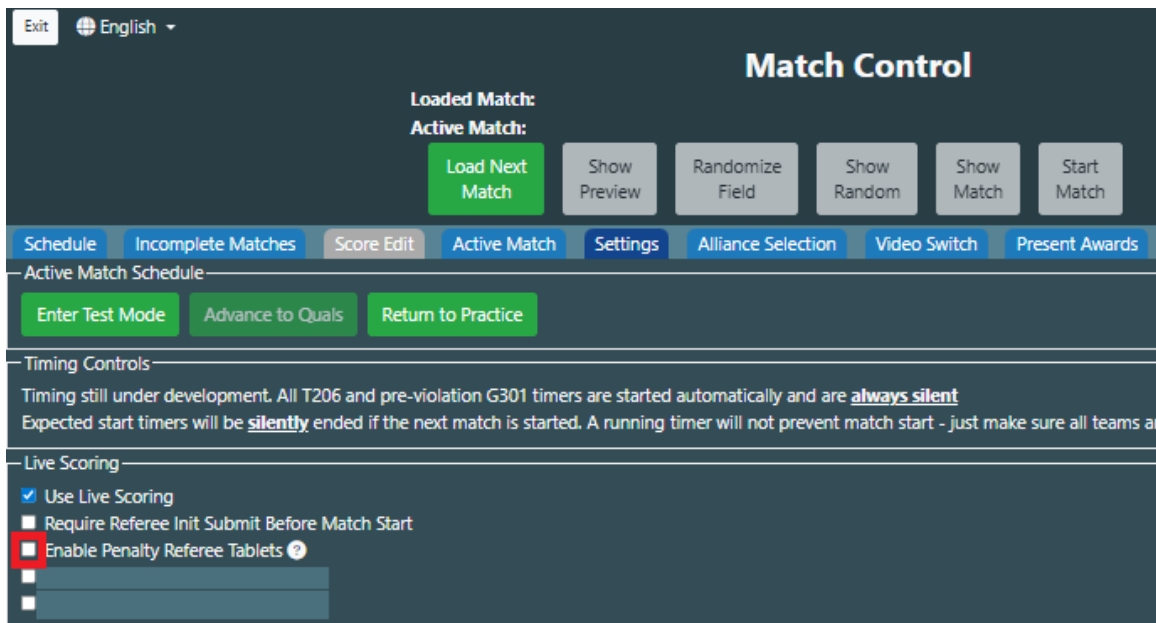


Figure 55: Scorekeeper Match Control Setting to Enable Penalty Referee Tablets

All 4 Referees (2 scoring, 2 penalty) ***must*** use input tablets if this option is selected. Enabling the penalty Referee tablet removes foul inputs from the scoring Referee tablets.

If the penalty Referee tablet entry mode is either enabled or disabled while Referee devices are active, ***all*** Referees must exit their Referee pages and re-access them from the FTC Live event home page on the device. They may need to refresh the home page.

Phones are the recommended devices for penalty Referee entry. Personal phones may be used if the event allows such devices on their network; however, gameplay Referee entry devices should follow all other recommendations in Device Setup.

It is **strongly recommended** that any phone, including any personal phone, used for gameplay Referee entry during a match has a “retaining” feature such as a lanyard, handle, hand-strap, or circular/ring grip device.

One gameplay Referee must select the blue penalty Referee entry and one must select the red penalty Referee entry in when this mode is enabled. Referees should stand next to the alliance area that aligns with their device input color.

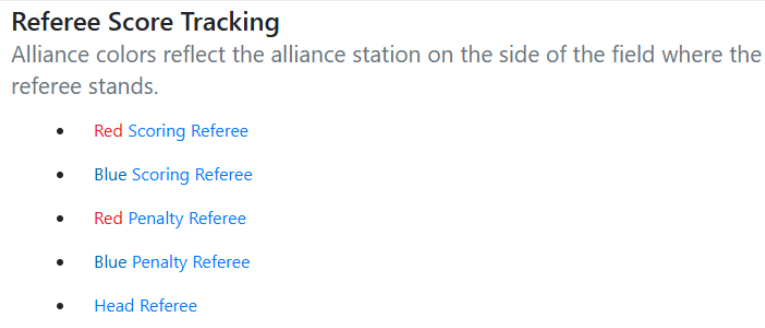


Figure 56: Event Home Page Referee Tracking Options with Penalty Referee

Multiple instances of the same tablet (e.g., Red Scoring Referee – Field 1, Blue Penalty Referee – All Fields, Head Referee – Field 2) should not be simultaneously opened and active during any MATCH.

Gameplay Referee Entry

The penalty Referee devices will allow gameplay Referees to input major and minor fouls for both alliances live, as they occur. The user interface has been designed to fit well on a phone for ambidextrous use, prioritizing foul entry, but allowing for foul removal, as required. Tapping anywhere on the wide red or blue “increment” buttons will increase the foul count.

Gameplay Referees cannot input scoring achievements, RP-impacting violations, or Cards.

Gameplay Referees should input fouls that occur that they call on their side of the field. The Referees should know from the Referee meeting who is responsible for calling and inputting fouls in which area of the field.

If multiple Referees (e.g., both the Head Referee and the blue gameplay Referee) call the same foul, they should have an established understanding of who should input the foul and/or communicate who will enter that foul through pointing at the person who should enter it.

Gameplay Referees should prioritize calling rule violations live with visual and/or verbal cues. They may also enter fouls during the match, soon after the violation occurs and is called.

Gameplay Referees should not miss action on the field for the sake of inputting fouls into their device. They should time foul entry around the action that occurs on the field and minimize the time spent looking at their device for entry.

Pre-Match Setup

Each gameplay Referee participating in a match must select the active match. They are not required to provide any other inputs prior to the match start.

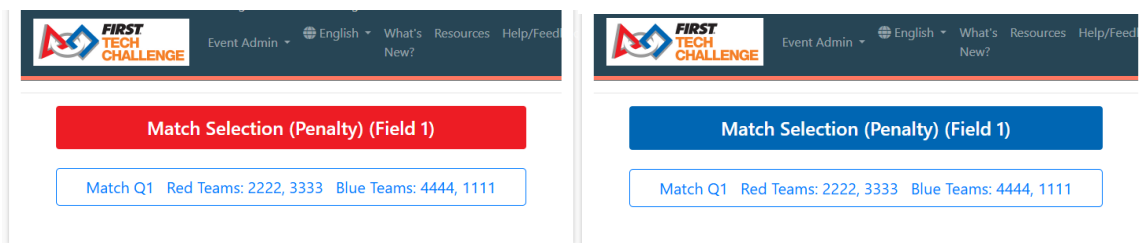


Figure 57: Match Selection – Match Available for the Red (Left) and Blue (Right) Penalty Referees

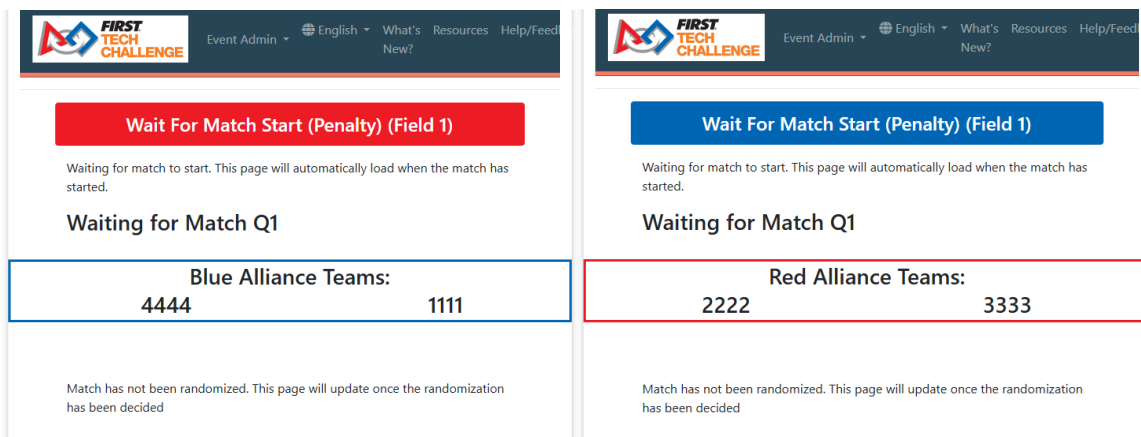


Figure 58: Ready for Match Screen – Not Randomized – for the Red (Left) and Blue (Right) Penalty Referees

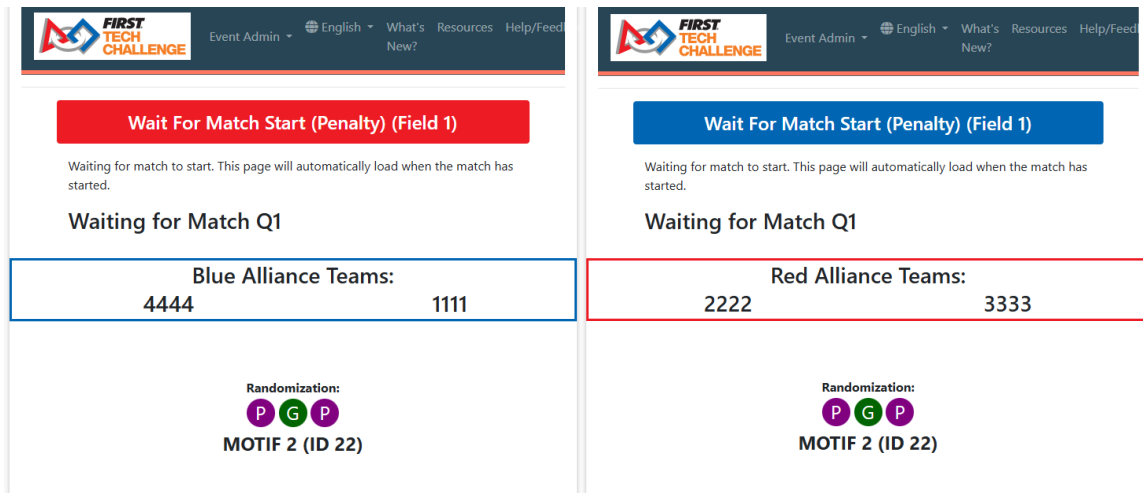


Figure 59: Ready for Match Screen – Randomized – for the Red (Left) and Blue (Right) Penalty Referees

AUTO

The gameplay Referees will input fouls observed & called during the AUTO period of the match by incrementing fouls with the large colored and labeled buttons on their device. Fouls can be removed with the grey decrease button found directly under the red/blue button for the foul type.

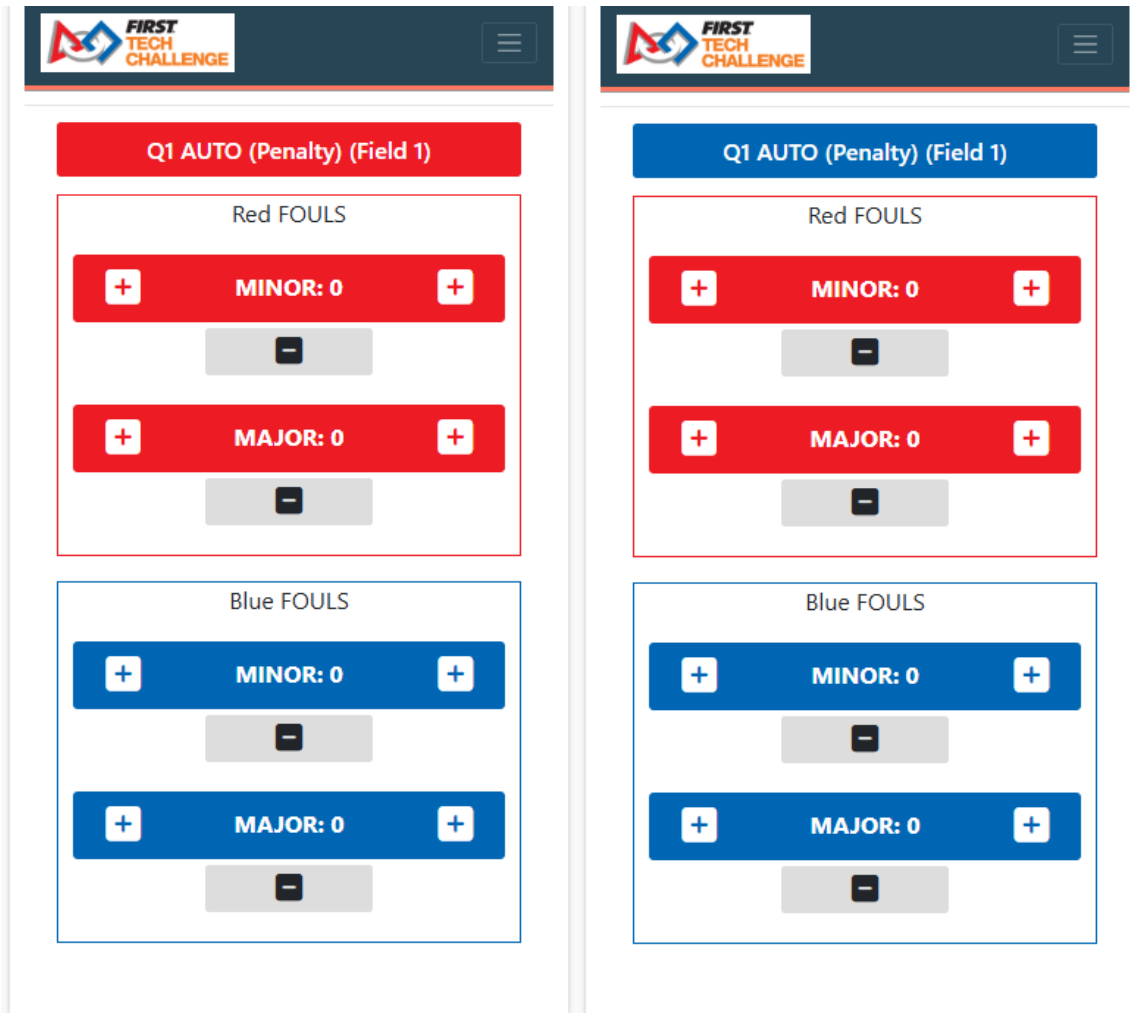


Figure 60: AUTO Penalty Referee Input Screens for the Red (Left) and Blue (Right)

The penalty Referee screen will automatically advance from AUTO to TELEOP at the end of AUTO without user input; therefore, the AUTO screen does not feature a “Submit AUTO” button.

The number of fouls will carryover between AUTO and TELEOP, as fouls are cumulative over a match.

TELEOP

The gameplay Referee should continue to enter fouls as they occur throughout TELEOP.

If a gameplay Referee tries to submit TELEOP prior to the end of TELEOP, it will not work and they will be alerted, as shown in Figure 62, and TELEOP will not submit. Once TELEOP has ended, they must use the "Submit TELEOP" button, which will transition to the Review page.

If the Referee has not submitted TELEOP within 10 seconds of the period ending, the page will flash yellow, as shown in Figure 63.

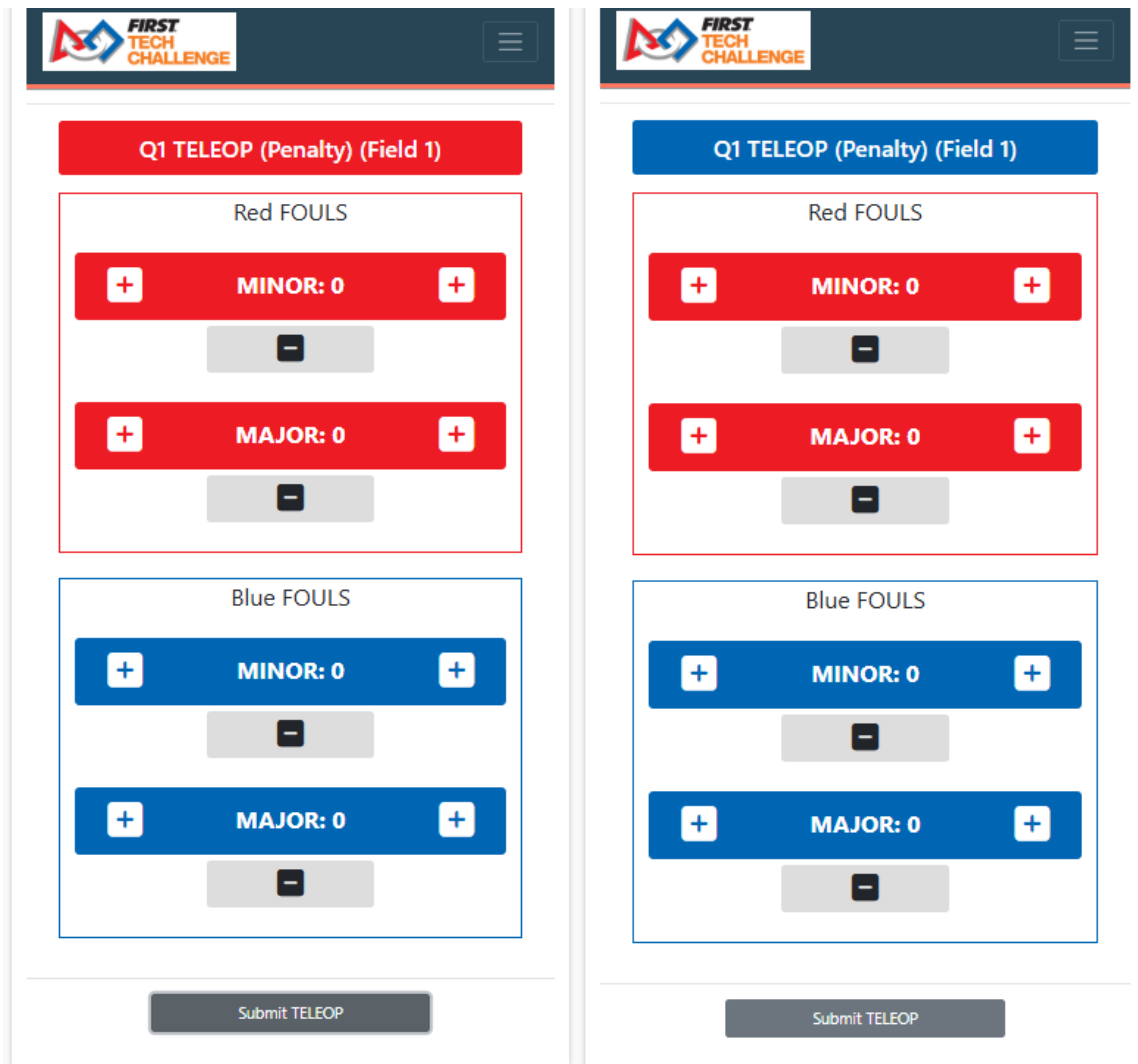


Figure 61: TELEOP Penalty Referee Input Screens for the Red (Left) and Blue (Right)

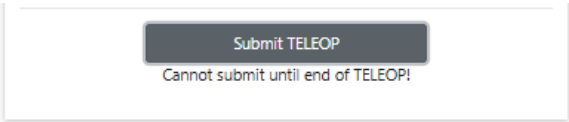


Figure 62: TELEOP – Early Submission Alert



Figure 63: TELEOP – Penalty Referee Late Submission Warning

Review

The Review screen for each gameplay Referee displays the fouls entered by that gameplay Referee for both AUTO and TELEOP periods and allows them to review and adjust foul counts during a Referee conference before the final submission. Any edits done on the review screen will not reflect in the live scores shown on the displays, but will reflect in the final posted results. Confirm with the scoring Referee and the Head Referee that the correct fouls have been input correctly, without double-counting.

Gameplay Referees must ensure that the Head Referee inputs any RP-impacting violations and any Cards.

Gameplay Referees must ensure that scoring Referees adjust any scoring achievements due to violations (e.g., G427 Base Scoring awards, G401 AUTO Pattern points), when applicable.

Each gameplay Referee must “Submit Final Scores” once any review is complete.

The gameplay Referees must submit final scores for each match, whether or not they record any fouls. Otherwise, it will hangup the match submission.




Q1 Review (Penalty) (Field 1)

Red FOULS

+

MINOR: 2

+

-

+

MAJOR: 2

+

-

Blue FOULS

+

MINOR: 3

+

-

+

MAJOR: 1

+

-

Submit Final Scores




Q1 Review (Penalty) (Field 1)

Red FOULS

+

MINOR: 0

+

-

+

MAJOR: 3

+

-

Blue FOULS

+

MINOR: 2

+

-

+

MAJOR: 2

+

-

Submit Final Scores

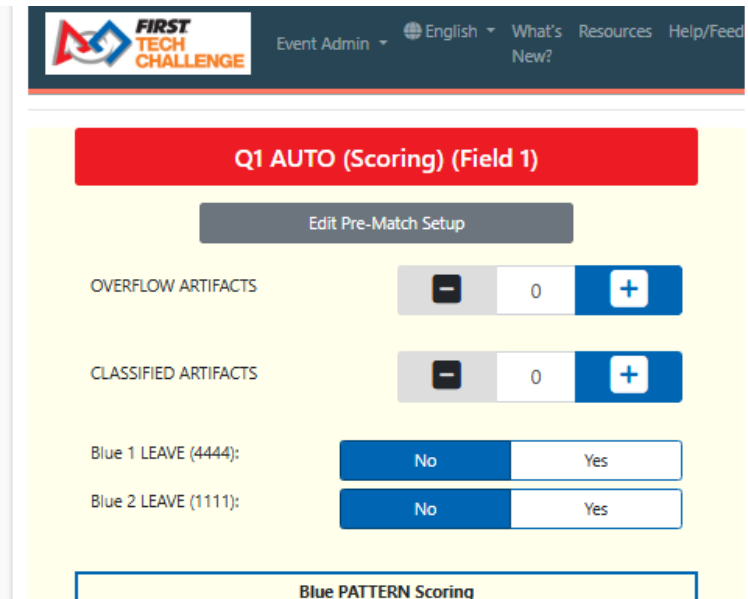
Figure 64: Review Penalty Referee Input Screens for the Red (Left) and Blue (Right)

Impact on Other Devices

When the penalty Referee devices are enabled, the following changes will occur to the other Referee devices and Scorekeeper view.

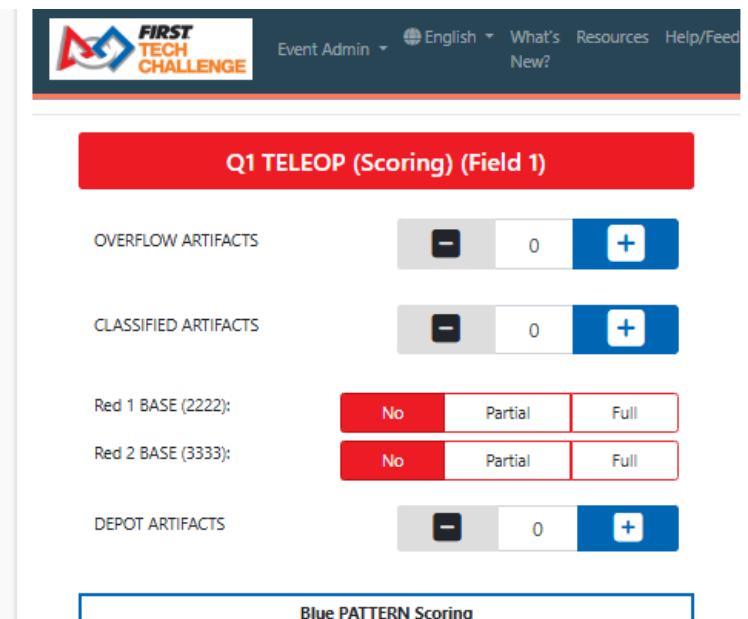
Scoring Referee

Scoring Referees will no longer have foul entry included on their tablets. This means the gameplay Referees and the Head Referee must input all Fouls on their devices.











The screenshot shows the 'Q1 AUTO (Scoring) (Field 1)' interface. At the top, there is a red header bar with the title. Below it is a grey button labeled 'Edit Pre-Match Setup'. The main area contains three rows of controls: 'OVERFLOW ARTIFACTS' and 'CLASSIFIED ARTIFACTS' each have a minus button, a '0' display, and a plus button. Below these are two rows for 'Blue 1 LEAVE (4444):' and 'Blue 2 LEAVE (1111):', each with 'No' and 'Yes' buttons. At the bottom, there is a blue bar labeled 'Blue PATTERN Scoring'.

Figure 65: Scoring Referee Tablet - AUTO without Foul Input



The screenshot shows the 'Q1 TELEOP (Scoring) (Field 1)' interface. At the top, there is a red header bar with the title. Below it is a grey button labeled 'Edit Pre-Match Setup'. The main area contains five rows of controls: 'OVERFLOW ARTIFACTS' and 'CLASSIFIED ARTIFACTS' each have a minus button, a '0' display, and a plus button. Below these are two rows for 'Red 1 BASE (2222):' and 'Red 2 BASE (3333):', each with 'No', 'Partial', and 'Full' buttons. At the bottom, there is a blue bar labeled 'Blue PATTERN Scoring'.

Figure 66: Scoring Referee Tablet without Foul Input

8				
9				
SQUARE <input type="checkbox"/>	GREEN	PURPLE	NONE	


Submit Final Scores

Figure 67: Scoring Referee Tablet Review Screen without Foul Input

Head Referee

The Head Referee tablet will feature an additional row of statuses to capture all four devices set for the active match.





The “Foul input” line is now indicating the fouls input by the penalty Referee devices instead of the scoring Referee devices.


Event Admin
English What's New? Resources Help/Feedback Hello, local

<< Back
Fullscreen
Help

Head Referee (Field 1)

Active Match
Notes
Timers
Scoresheets

Qualification 1
 Match Status: TELEOP
 Randomization: MOTIF 2 (ID 22)





Flip Alliances
Review Required?
Add Note

Blue	Red
AUTO	AUTO
TELEOP	TELEOP
5	2
3 / 2	2 / 0
<div style="display: flex; justify-content: space-around;"> <div style="background-color: #ccc; padding: 2px 5px;">-</div> <div style="background-color: #0056b3; color: white; padding: 2px 5px;">0</div> <div style="background-color: #0056b3; color: white; padding: 2px 5px;">+</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #ccc; padding: 2px 5px;">-</div> <div style="background-color: #ff0000; color: white; padding: 2px 5px;">0</div> <div style="background-color: #ff0000; color: white; padding: 2px 5px;">+</div> </div>
3	5
1 / 2	2 / 3
<div style="display: flex; justify-content: space-around;"> <div style="background-color: #ccc; padding: 2px 5px;">-</div> <div style="background-color: #0056b3; color: white; padding: 2px 5px;">0</div> <div style="background-color: #0056b3; color: white; padding: 2px 5px;">+</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #ccc; padding: 2px 5px;">-</div> <div style="background-color: #ff0000; color: white; padding: 2px 5px;">0</div> <div style="background-color: #ff0000; color: white; padding: 2px 5px;">+</div> </div>

Referee Status

Scoring Phase

Penalty Phase

MINOR FOULS

Total

Foul Input: R / B

HR MINOR FOULS

MAJOR FOULS

Total

Foul Input: R / B

HR MAJOR FOULS

Figure 68: Head Referee Tablet with Scoring and Penalty Referee Tablet Statuses

The gameplay Referees must submit each match, whether or not they record any fouls. Otherwise, it will hangup the match submission.

Scorekeeper

The Scorekeeper will be able to view all four in-match Referee device statuses. These are shown with a horizontal split across the tablet status indication. Penalty tablets are on the bottom, scoring tablets are on the top. Orange indicates a late submission from a phase. Green indicates the tablet is on the correct phase or that the review has been submitted post-match. Orange indicates the tablet is on a prior match phase.

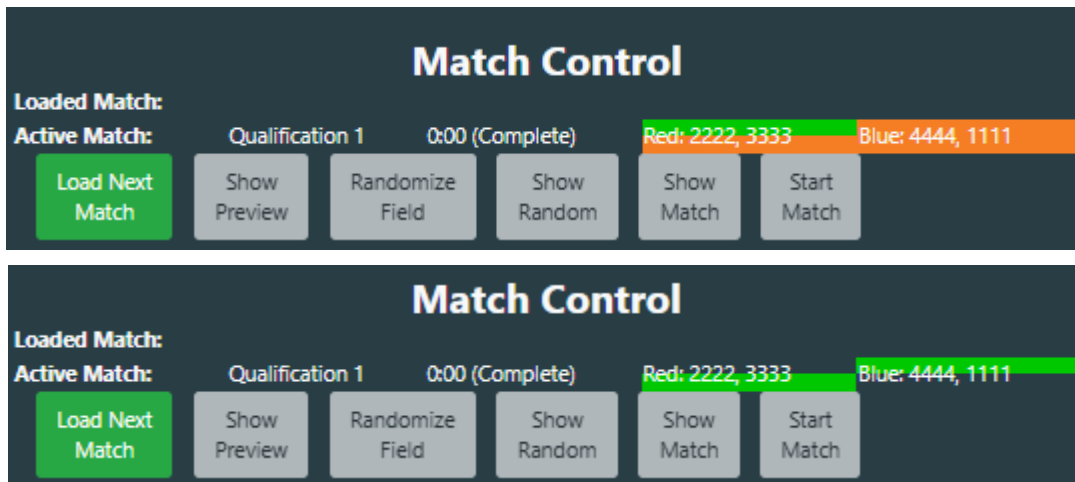


Figure 69: Scorekeeper Indicator for Tablet Status (Examples)