FTC Scoring Review

Below is information that can be reviewed for those that are going to be helping the Referees keep the score for each match. All scoring will be done via tablets.

Here is a link to show a sample of online scoring - [Online Game Score Calculator](#)

Here is an overview of the game for scoring:

The Game:

CENTERSTAGE℠ presented by RTX is played on a 12 ft. x 12 ft. (3.7m x 3.7m) square field with approximately 1 ft. (0.3 m) high walls and a soft foam mat floor. There are two Alliances – "red" and "blue" – made up of two Robots each. Pixels are the Alliance-neutral scoring elements. There are 94 Pixels (64 white, 10 purple, 10 yellow, and 10 green). Four white Pixels are used as indicators for the Autonomous Period to direct the Robots to specific scoring areas. At the back of the field are two alliance-specific Backdrop and Backstage areas where robots score Pixels. Approximately midfield are four Trusses made up of Riggings and one Stage Door. In the front corners of the field are alliance-specific Wings where robots receive Pixels from the Human Player. There are six stacks of Pixels against the front wall of the field for Robots to retrieve and score. In front of the field are three Landing Zones where Robots will launch Drones.

Robots must traverse around the field under the Truss or through the Stage Door to access Pixels located against the front field wall. Pixels may also be placed by the Human Player into the Wings for Robots to access and score on the Backdrop or Backstage. There are different colors of the Pixels or the Robots to score Mosaics of three non-white Pixels in certain patterns.

Prior to the start of the Match, Robots must be touching the wall closest to their alliance station at specified locations and may possess up to two Pre-Load Pixels (one yellow and one purple) and their Drone. Teams may place their own manufactured Team Prop on the field directly in front of their Robot.

Matches have two distinct periods of play: a 30-second Autonomous period followed by a two-minute Driver-Controlled period. The last thirty seconds of the Driver-Controlled period is called the End Game which adds new scoring opportunities for the Robots to achieve.

Autonomous Period:

Robots may place Pixels in their corresponding Backdrop or Backstage closest to their Alliance Station. They can park in several locations at the end of the period for different points. Robots that can read the location of the Randomized Pixel and place their Pixel onto the correct Backdrop location earn points. Using their Team Prop to accomplish these tasks earns additional points.
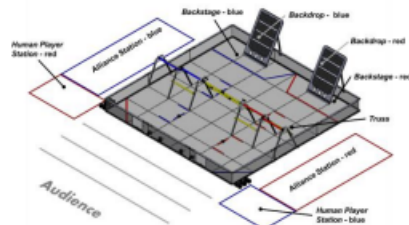
Driver-Controlled Period:

Alliances earn points by scoring Pixels on their Backdrops or in their Backstage Areas. Mosaics on the Backdrop earn Artist Bonus points. Pixels crossing Set Lines on the Backdrop also earn Set Bonus points.

End Game:

Alliances may continue to score Pixels on Backdrops or Backstage. They may also launch Drones from their Robots over the Truss into Landing Zones in front of the Playing Field. They may also suspend their Robots from the Rigging connected to the Truss or Park their Robots in the Backstage for various points.

Autonomous Period Scoring:

Navigating:
    Parked In Alliance Backstage: ....5 points
Randomization Tasks based on white Pixel:
    Purple Pixel in Spike Mark location: ....10 points
    Yellow Pixel in correct column on Backdrop: 10 points
Randomization Tasks based on Team Art:
    Purple Pixel in Spike Mark location: ....20 points
    Yellow Pixel in correct column on Backdrop: 20 points
Pixels:
    Placed in Backstage: ....3 points
    Placed on Backdrop: ....5 points

Driver-Controlled Period Scoring:

Pixels:
    Placed in Backstage: .... 1 point
    Placed on Backdrop: ....3 points
    Artist Bonus: ....10 points
    Set Bonus: ....10 points each

End Game Scoring:

Robot Parked In Backstage: ....5 points
Robot Suspended from Rigging: ....20 points
Drone Launching:
    In Landing Zone 1 (closest to the field): ....30 points
    In Landing Zone 2:..20 points
    In Landing Zone 3:..10 points

Screenshots of the scoring grid

Red Alliance

Match: _____ Field: _____

Pre-Match

	White Pixel	Team Prop
Robot 1	☐	☐
Robot 2	☐	☐

Autonomous Period

Backstage Pixels _____ Backdrop Pixels _____

Robot	Purple Pixel		Yellow Pixel		Navigation	
	No	Spike Mark	No	Backdrop	No	Yes
Robot 1	☐	☐	☐	☐	☐	☐
Robot 2	☐	☐	☐	☐	☐	☐

Driver-Controlled Period

Backstage Pixels _____ Backdrop Pixels _____

Mosaics _____ Max Set Line _____

End Game Period

	None	Backstage	Rigging
Robot 1	☐	☐	☐
Robot 2	☐	☐	☐

	None	1	2	3
Drone Zones	☐	☐	☐	☐
	☐	☐	☐	☐

Penalties

Minor _____ # Major _____

Team #	No Robot	No Show	Yellow Card	Red Card
_____	☐	☐	☐	☐
_____	☐	☐	☐	☐

Appendix F – Paper Scoresheet Instructions

Step by Step Instructions

1. Fill out the match number.
2. Indicate which field the match is taking place (if there are multiple fields being played).

FIRST TECH CHALLENGE

Red Alliance

CENTERSTAGE

Match: _____ Field: _____

3. Pre-match Setup

Pre-Match			
	White Pixel		**Team Prop**
Robot 1	☐	a)	☐
Robot 2	☐		☐

a) For each robot on the alliance, note whether or not each team has opted to use the default white pixel or the team supplied team prop.

4. Autonomous Period

Autonomous Period						
Backstage Pixels				**Backdrop Pixels**		
Robot	b) **Purple Pixel**		c) **Yellow Pixel**		d) **Navigation**	
	No	**Spike Mark**	**No**	**Backdrop**	**No**	**Yes**
Robot 1	☐	☐	☐	☐	☐	☐
Robot 2	☐	☐	☐	☐	☐	☐

b) Check the box for each robot on the alliance that indicates whether they placed the purple pixel on the randomized spike mark. If not, check no.
c) Check the box for each robot on the alliance that indicates whether they placed the yellow pixel on the randomized backdrop location. If not, check no.
d) Check the box for each robot that navigated and parked in the backstage area. If not, check no.

5. Driver-controlled Period

Driver-Controlled Period

| Backstage Pixels | _____ | e) | Backdrop Pixels | _____ |
| Mosaics | _____ | f) | Max Set Line | _____ |

e) Record the number of pixels scored
    i.   In the backstage
    ii.   On the backdrop
f) Record the number of:
    i.   Mosaics scored
    ii.   Highest set line crossed with pixels (max 3

6. End Game

End Game Period

		None	Backstage	Rigging
Robot 1	g)	☐	☐	☐
Robot 2		☐	☐	☐

		None	1	2	3
Drone Zones	h)	☐	☐	☐	☐
		☐	☐	☐	☐

g) Check the box that indicates the location of each alliance robot during end game. If they are not parked in the backstage, or suspended from the rigging, check none. Check the box that indicates where each alliance's drone is parked. If they did not launch a drone, or the drone did not park in any of the landing zones, check none.

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FIRST.
TECH
CHALLENGE

☰

Q1 Pre-Match Setup

Team 6589 Present:

| No Show | No Robot | **Present** |

Team 99853 Present:

| No Show | No Robot | **Present** |

Team Prop (6589):

| **White Pixel** | Team Prop |

Team Prop (99853):

| **White Pixel** | Team Prop |

Red Alliance Ready

FIRST
TECH
CHALLENGE

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Wait For Match Start

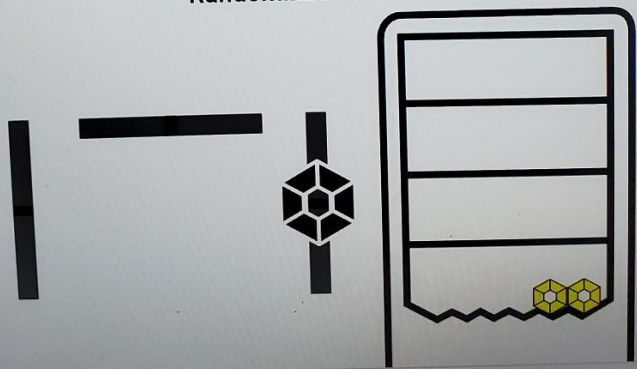Waiting for match to start. This page will automatically load when the match has started.

Waiting for Match Q1

Red Teams:

White Pixel   White Pixel

6589   99853

Edit Pre-Match Setup

Randomization:

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FIRST TECH CHALLENGE

≡

Q1 Autonomous

Edit Pre-Match Setup

Robot 1 Purple Pixel (6589):	No	Right Spike Mark
Robot 1 Yellow Pixel (6589):	No	Right Backdrop
Robot 2 Purple Pixel (99853):	No	Right Spike Mark
Robot 2 Yellow Pixel (99853):	No	Right Backdrop

Backstage Pixels	▬	0	+
Backdrop Pixels	▬	0	+

Robot 1 Navigated (6589):	No	Yes
Robot 2 Navigated (99853):	No	Yes

Minor Penalties:	▬	0	+

FIRST
TECH
CHALLENGE

Q1 Driver-Controlled

Backstage Pixels	−	1	+
Backdrop Pixels	−	2	+
Mosaics	−	0	+
Highest Set Line	−	0	+

Drone Zones

No	1	2	3
No	1	2	3

Robot 1 Location (6589):	No	Backstage	Rigging
Robot 2 Location (99853):	No	Backstage	Rigging

Minor Penalties:	−	0	+
Major Penalties:	−	0	+

Submit Driver-Controlled