

PRESENTED BY Qualcom

# WELCOME

#### SCHEDULE

8:30 am - 9:15 am - Arrival / Check In

8:45 am - 9:15 am - Rookie Session

9:15 am- 9:30 am - Welcome

9:30 am- 10:00 am - Keynote Speaker

Senna Chapman, PhD, RPA Site File Manager - Archaeologist

Louisiana Division of Archaeology

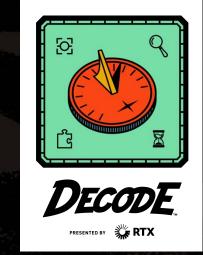
10:00 am- 10:30 am - Exploring the Latest Updates

10:30 am - 11:00 am - Season Outlook, Announcements and Giveaways

11:00 am - 11:30 am - DECODE Game Reveal

11:30 am - 12 noon - Dig Into DECODE: New Changes

12 Noon - Field Reveal & Head Ref Q&A





DOWNLOAD







# FIRST TECH CHALLENGE

# **General Season Information**





## **Competition Manual Structure and Updates**

The Competition Manual is broken down into sections which are mostly self-contained.

- Not everyone needs to review every section, but the team as a whole is responsible to know and understand the rules.
- Sections with a letter in parentheses "(A)"
  have specific rules, sections without the letter,
  are overview or process sections.
- Words in ALL CAPITAL LETTERS have specific meanings, check <u>Section 16: Glossary</u> for details.







# **Competition Manual Sections**

Section 1: Introduction	<ul> <li>About FIRST and FIRST Culture</li> <li>How the manual is set-up and how to interpret it</li> </ul>
Section 2: FIRST Season Overview	Short description of the season theme and other FIRST Programs
Section 3: Competition Eligibility and Inspection (I)	<ul> <li>What teams need to do before competing to be eligible "I Rules"</li> <li>Includes ROBOT Inspection</li> </ul>
Section 4: Advancement	How do teams earn advancement
Section 5: Event Rules (E)	<ul> <li>Overall event rules (not game specific) "E Rules"</li> </ul>
Section 6: Awards (A)	<ul> <li>Describes the Awards Process</li> <li>Provides specific rules about Awards and Judging "A Rules"</li> </ul>
Section 7: Game Sponsor Recognition	<ul> <li>Thank you to <u>RTX</u> for being our presenting sponsor for DECODE</li> </ul>
Section 8: Game Overview	High level "story of the game"

Section 9: ARENA	Overview of the playing field
Section 10: Game Details	<ul><li>Overview of the game and match set-up and process</li><li>Scoring and Violations</li></ul>
Section 11: Game Rules (G)	Specific Game Rules "G Rules"
Section 12: ROBOT Construction Rules (R)	<ul> <li>Rules about what is allowed when building the ROBOT "R Rules"</li> </ul>
Section 13: Tournament (T)	<ul> <li>Qualification and Playoff Match process</li> <li>Playoff brackets</li> <li>Tournament Rules "T Rules"</li> </ul>
Section 14: League Play (L)	Additional rules for League Play
Section 15: FIRST Championship (C)	<ul> <li>Processes specific to the FIRST Championship</li> <li>Specific Championship rules "C Rules"</li> </ul>
Section 16: Glossary	All DEFINED TERMS





## **Team Updates**

- Competition Manual is updated frequently throughout the season to improve the clarity and intent of rules, and to fix any errors found.
- When the manual is updated a Team Update (TU) is published which shows a summary of the changes.
- Releases will happen every Thursday (by 1pm Eastern).
- Adults sign up for email notifications through the website.
- First Update TU 00 will be out following reveal.
  - Will note major changes from last season's INTO THE DEEP to this year's DECODE manual. <a href="ftc.game/tu-00">ftc.game/tu-00</a>



Coaches: Sign up here to get team update emails

Shortcut to Season Materials: FTC.GAME





## **Team Q&A**

- Available for teams to ask questions about things they believe are not already clarified by the rules.
  - Answers may point teams to a specific rule or sometimes questions will result in a Competition Manual update.
  - At events, the Head Referee and Event Director make the final decision based on the Competition Manual Rules.
- Opens on Sept 22nd
  - Review Q&A section 1.9 in Game Manual
  - o Instructions: <a href="ftc.game/q-a-help">ftc.game/q-a-help</a>
  - Log in here: <a href="https://ftc-qa.firstinspires.org/">https://ftc-qa.firstinspires.org/</a>





#### **Al Rules Assistant**

**New this year**: Al Chatbot available to help find answers to rules questions

- https://ftc-cmchatbot.firstinspires.org/
- The chatbot is trained specifically on the current version of the Competition Manual and will update throughout the season.
- The chatbot can help you find what you're looking for, but it's still up to you to review and verify the answers.







#### **Team Calls**

- These are for YOU!
- Register to join a call and get help from FIRST Tech Challenge experts.

Topic	Date	Time
Doon's List	Wednesday, November 12th	8-8:55 PM ET
Dean's List	Wednesday, December 10th	8-8:55 PM ET
Judaina Comonlov	Thursday, October 16th	8-8:55 PM ET
Judging, Gameplay and General Support	Thursday, November 13th	8-8:55 PM ET
and General Support	Thursday, December 11th	8-8:55 PM ET



**Team Call Schedule** 





### **Team Avatars**

Team Avatars (announced last year) are back!

- Avatars are small images teams can create and use to strengthen their brand or team identity and are shown in the scoring system and other official locations.
- If your team had an avatar last season, it will automatically roll over to this year.
- Lead Coach 1&2 can submit new or updated avatars by logging into <a href="https://ftc-scoring.firstinspires.org/">https://ftc-scoring.firstinspires.org/</a>
  - Avatar submission is <u>only available for</u> <u>fully registered teams</u>.





FIRST TECH CHALLENGE

# **Award Changes**



#### **Awards**



- Formal Interviews/Judging Sessions are now called "Structured Interviews".
   There is no format change.
- The Motivate Award has been retired. It has been replaced with two new awards: Sustain and Reach, so we can better celebrate the required and suggested achievements the Motivate Award represented.
- Teams who have won 1<sup>st</sup> place Inspire at a Qualifier can be considered for 2<sup>nd</sup> or 3<sup>rd</sup> place Inspire at subsequent Qualifying Tournaments.
- Teams can only receive one Judged Award recognition per event (1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup>). This allows us to celebrate the accomplishments of many teams.
- A204-C Allows for "show and tell" demonstration items which may include the team's ROBOT.
- Updated descriptions and criteria for other awards.





#### **NEW Reach Award**

This award celebrates a team that has introduced and recruited new people into FIRST.

Through their efforts, they have sparked others to embrace the FIRST culture.

		Reach Award Criteria
Required	1	Team must discuss, describe, display, or document their outreach objectives.
Required	2	Team must discuss, describe, display, or document their successful recruitment of new teams, or coaches, or mentors and/or volunteers who are not otherwise active within the FIRST community.
Encouraged	3	Is an ambassador for FIRST programs in a way that makes FIRST loud.
Encouraged	4	Has a creative and evolving approach to outreach materials that market their team and FIRST.

Note: Teams are encouraged to review the Award Terms and Definitions Document to understand the requirements behind specific terms (starting a FIRST team, running an event, reaching x number of people). JUDGES may ask specific questions when a specific term listed in this document is mentioned in a team's PORTFOLIO or during an interview.





#### **NEW Sustain Award**

Sustainability and planning are essential for a FIRST team, because they ensure the program's long-term success. This award celebrates the team that has considered their future team members and has worked to ensure that their team or program will continue to exist long after they have gone on to develop their careers. A PORTFOLIO is not required for this award.

		Sustain Award Criteria
Required	1	Team must discuss, describe, display, or document their plan(s) which includes at least one of the following:  A. finances and financial sustainability plan, B. season project planning, and/or C. team sustainability plans and/or objectives.
Required	2	Team must discuss, describe, display or document how a team tracks their progress towards their plan(s) listed above.
Encouraged	3	Team has clear team roles for all members of the team and a process for developing leadership.
Encouraged	4	Team can discuss, describe, display, or document how they manage the team's constraints and/or risks.





## **Award Hierarchy**

#### **INSPIRE AWARD**

Recognizes teams who excel in MCI, TA, and Think award accomplishments.

This team is an all-around inspiration for others.

Design Award Control Award Innovate Award

Machine, Creativity, Innovation (MCI)

Recognizes the technical accomplishments of teams in the brainstorming, design, construction, operation, and control of their ROBOTS.

Connect Award Reach Award

Award

Sustain

NEW N Team Attributes (TA)

Recognize teams who have expanded their skillset, created a plan to sustain their program and team, and spread the message of FIRST through their outreach and connections.

Think Award

Recognizes teams who masterfully document their team's process and ROBOT using their PORTFOLIO. Judges' Choice Award

Recognizes a team whose unique efforts, performance, or dynamics merit recognition, but does not fit into any of the other award categories.

A Team must be a contender in an MCI, TA and for THINK to be considered for INSPIRE. The judging manual is public and teams may review it for insight into the judging process.

#### **Awards**



\*optional award

# **Dean's List NEW! Single Deadline**

December 15<sup>th</sup>, 2025 is the deadline for all Dean's List Award nominations, for all regions.

#### **Coaches** nominate eligible students:

- 10th or 11th grade students
- Students who are great examples of student leaders who have led their teams and communities to increased awareness for FIRST and its mission, champion FIRST Core Values
- It is the goal of FIRST that Dean's List Award Winners will continue, post-award, as great leaders, student alumni, and advocates of FIRST.

Dean's List Aw	ard Important Dates
September 6, 2025	Nominations open
December 15, 2025	Nominations due
January 5-9, 2026	Interviews take place (dates may vary)
February 28, 2026	2 Finalists announced at Regional Championship
April 2026	Winners announced at FIRST Championship

Coaches: Refer to the **Dean's List Nomination Guide** for more information



#### **Awards**



\*optional award

# **Compass Award**

#### STUDENT TEAM MEMBERS nominate their Coach or Mentor:

- The Compass Award recognizes an adult coach or mentor who has given outstanding guidance and support to a team throughout the year and demonstrates to the team what it means to be a Gracious Professional
- 40-60 second video submission highlighting how their mentor has helped them become an inspirational team and emphasize what sets the mentor apart.

Optional and Only offered at the Regional Championship.

Due 1 Week Prior to Regional Championship. (Feb. 21, 2026)

**TEAM MEMBERS:** Refer to the Awards sections of the Competition Manual for more information. See Section 6.5.2 of Competition Manual



FIRST TECH CHALLENGE

# **Advancement and Judging**





- Teams will be ranked based on the points they earn through their overall performance at that individual event.
- This model rewards well rounded teams who do well with Awards and Robot performance.
- Everything a team does well at an event helps contribute to their advancement points.
- INSPIRE no longer automatically advances to the World Championship.
- No math required! The scoring system will do the math, but you can see how points are calculated in Section 4: Advancement.

	See Game Manual Section 4
Category	Advancement Points Earned
Qualification Round Performance	Normal distribution of points from 16 to 2 across the highest ranked team to the lowest based on the equation in $\underline{4.1.1}$ . (This will result in a minimum of 2 points and a maximum of 16 points being awarded for qualification round performance.)
ALLIANCE CAPTAINS	Equal to 21 minus the ALLIANCE CAPTAIN number (e.g. 18 points for ALLIANCE #3 CAPTAIN)
Draft Order Acceptance	Equal to 21 minus the Draft Order Acceptance number (e.g. 18 points for the team which accepts the third draft position)
Playoff Advancement	40 points for 1st Place (Winners) 20 points for 2nd Place (Finalists) 10 points for 3nd Place 5 points for 4th Place (See Section 13.8 Dual Division Events for modifications to this section)
Team Judged Awards	60 points for Inspire Award 1st Place 30 points for Inspire Award 2nd Place 15 points for Inspire Award 3nd Place 12 points for all other 1st Place Awards 6 points for all other 2nd Place Awards 3 points for all other 3nd Place Awards (See A211 for a list of points-eligible awards)

A Team's Total Points in all above categories = Team's Advancement Points

LET'S BREAK DOWN EACH CATEGORY



## Qualification Round Performance Points Earned

Qualification Round Performance  Normal distribution of points from 16 to 2 across the highest ranked team the lowest based on the equation in 4.1.1. (This will result in a minimum of 2 points and a maximum of 16 points being awarded for qualification roun performance.)
--

- The qualification rank of the team at the event at the conclusion of Qualification Matches.
- The system will automatically generate the appropriate points for each team based on their rank and the number of teams at the event.
- Calculation of Qualification Round Performance points is done using the equation below. <u>Section 4: Advancement</u>.

$$QualificationPoints(R, N, \alpha) = \left[ InvERF\left(\frac{N-2R+2}{\alpha N}\right) \left(\frac{7}{InvERF\left(\frac{1}{\alpha}\right)}\right) + 9 \right]$$





#### Alliance Selection Results Points Earned

ALLIANCE CAPTAINS	Equal to 21 minus the ALLIANCE CAPTAIN number (e.g. 18 points for ALLIANCE #3 CAPTAIN)
Draft Order Acceptance	Equal to 21 minus the Draft Order Acceptance number (e.g. 18 points for the team which accepts the third draft position)

- These attributes measure both individual team qualification round seeding performance and recognition by peers (alliance picks).
- ALLIANCE CAPTAINS are recognized based on their qualification round seeding rank.
- DRAFT ORDER: Alliance Captains are given the same number of points as the team drafted in the same sequence. (ex: The team who accepts the pick from the 3rd Alliance Captain receives the same number of points as the 3rd Alliance Captain 21 - 3 = 18)





## Playoff Performance Points Earned

Playoff Advancement	40 points for 1st Place (Winners) 20 points for 2nd Place (Finalists) 10 points for 3rd Place 5 points for 4th Place
	(See Section <u>13.8 Dual Division Events</u> for modifications to this section)

- This attribute measures team performance as part of an ALLIANCE.
- Teams earn points based on how far they progress into the playoffs.
- Points are given to all teams within the ALLIANCE.





## **Team Judged Awards Points Earned**

This attribute measures team performance with respect to team awards judged at the event.

60 points for Inspire Award 1st Place
30 points for Inspire Award 2nd Place
15 points for Inspire Award 3rd Place
12 points for all other 1st Place Awards
6 points for all other 2nd Place Awards
3 points for all other 3rd Place Awards
(See A211 for a list of points-eligible awards)

#### NOTE:

- 2nd and 3rd places are not always given at events.
- See section A211 of Competition Manual: Only the awards specified in Table 6-1 (shown on the right) based on the event size are points-eligible for advancement.

# POINTS ELIGIBLE AWARDS

Most Qualifiers Regional Championship

-				
		Total Event	Participating Tea	ms
Awar	d	4-10 Teams	11-20 Teams	21-40 Teams
Inspire Award		1 <sup>st</sup> Place	1 <sup>st</sup> Place 2 <sup>nd</sup> Place	1st Place 2nd Place 3rd Place
Think	Award	1st Place	1st Place	1st Place 2nd Place
	Connect Award	1 <sup>st</sup> Place (Only one of Connect, Reach, or Sustain will be given)	1st Place	1 <sup>st</sup> Place (2 <sup>nd</sup> Place*)
TA Awards	Reach Award		1st Place	1 <sup>st</sup> Place (2 <sup>nd</sup> Place*)
17	Sustain Award		1 <sup>st</sup> Place	1st Place (2nd Place*)
MCI Awards	Design Award	1st Place (Only one of Innovate, Control or	1st Place	1st Place (2nd Place*)
	Innovate Award		1st Place	1 <sup>st</sup> Place (2 <sup>nd</sup> Place*)
	Control Award	Design will be given)	1st Place	1 <sup>st</sup> Place (2 <sup>nd</sup> Place*)
Judg	es' Choice Award	Optional*	Optional*	Optional*

<sup>\*</sup>Discretionary awards



Tie Breakers

#### **Points-Based Advancement Model**



#### **Order of Advancement**

If there is a tie in the point totals between teams, the higher ranked team will be determined using the following additional sorting criteria:

Order Sort	Criteria		
1st Total Advancement Points (as calculated in Table 4-1)			
2 <sup>nd</sup>	Judged Team Award Points		
3rd	Playoff Advancement Points		
4 <sup>th</sup>	ALLIANCE Selection Results Points (ALLIANCE CAPTAIN or Draft Order Acceptance)		
5 <sup>th</sup> Qualification Round Performance Points			
6th Average MATCH Score (excluding FOULS)			
7 <sup>th</sup>	7 <sup>th</sup> Average AUTO Score		
8th Highest individual MATCH Score, regardless of whether that score occurred in a Qualification or Playoff MATCH (excluding FOULS)			
9th Second Highest individual MATCH Score, regardless of whether that score of Qualification or Playoff MATCH (excluding FOULS)			
10 <sup>th</sup>	Random Selection by Event Management System		



Advancement Changes
Announcement Blog

#### **Season Outlook:**

- November 16th Scrimmage / LSU College of Engineering
- Qualifier December 13 / Northshore High School (Slidell)
- Qualifier January 17 / Hammond High School
- 2 Additional Qualifiers TBA
- February 28th Regional Championship TBD
- FIRST Championship April 29 May 2nd, 2026
- Premier Events April-July, 2026

We're looking for 2 Qualifier Hosts in January/ Early February

Other important dates:

FRC Kickoff - Jan. 10th, 2026

FLL State - Feb. 1th, 2026



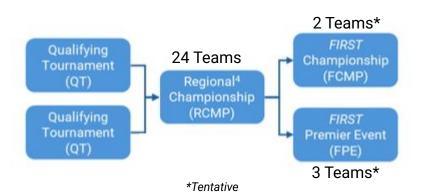






# FIRST Championship and Premier Event Opportunities

- The FIRST Championship will have 336 FIRST Tech Challenge teams this year (up from 256 last year)
   Advancement & FIRST Championship Update Blog Post
- FIRST Tech Challenge Premier Events are back and bigger giving more advancement opportunities to teams!



#### **IMPORTANT DATES:**

**November 17, 2025**: Total of registered teams on this date determines our *FIRST* Championship Allocations (# of teams advancing to Championship and Premier Events)

March 30, 2026: Last day to complete payment and housing registration for the FIRST Championship in Houston.

**Premier Events** set their own payment deadlines to secure your spot.

**May 2**: Storefront closes, last day to use restricted grants. (If you have any balance in your FIRST portal it will go away after this date.)

We would like to see all advancing teams take advantage of these advancement opportunities.

Fundraise & Plan Accordingly!





College of Engineering



# SCRIMMAGE SIGNUP

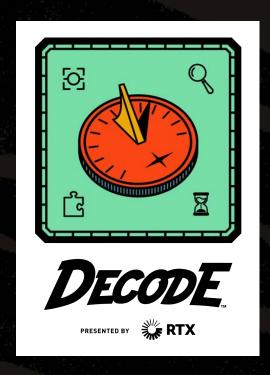
Sunday, November 16th, 2025 at the LSU College of Engineering

SPACE LIMITED TO 14 TEAMS



SCAN OR CLICK HERE FOR SIGN UP FORM

Stay Tuned
We'll Unearth More
Updates & Changes
after the Reveal



Using STEM skills and teamwork, today we can dig deeper into discoveries than ever before.

# LET'S UNLOCK THE MYSTERY

FIRST Kickoff Videos: Full Video

Game Animation Field Tour Starter Bots

# Let's Dig In To The Game & More Important Changes







# **Game Overview**

# 1 Disclaimers 1 1

- This is based on limited time to review the game materials.
- Teams should review the Competition Manual.
- Teams are encouraged to ask Q&A online when it opens.
- Team Updates may change or modify the rules or their interpretation.
- This is the best information available as of Kickoff (September 6, 2025).



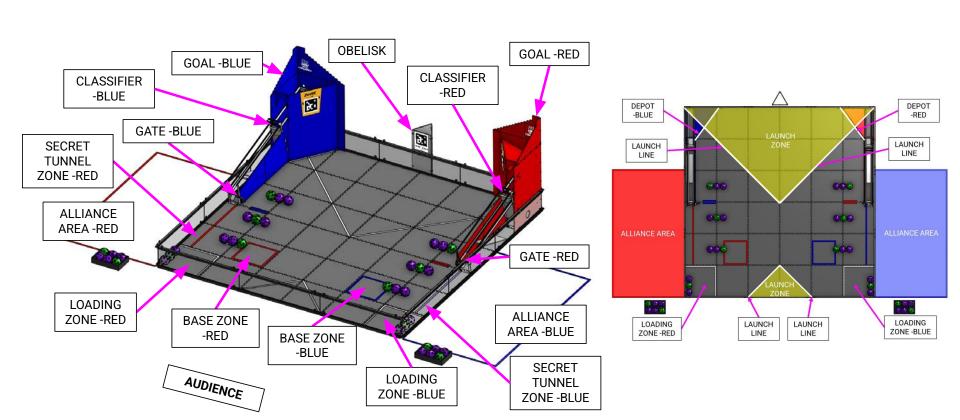


## **High Level Game Narrative**

- In DECODE™ presented by RTX, 2 competing ALLIANCES of 2 teams each score purple and green ARTIFACTS
  in their GOAL, build PATTERNS, and race back to their BASE before time runs out.
- Just before the MATCH starts, the OBELISK is randomized to show one of 3 MOTIFS. The MOTIF for the MATCH defines what color PATTERN ROBOTS try to create on their RAMPS.
- During the first 30 seconds of the MATCH, the ROBOTS operate autonomously. ROBOTS can use sensors to
  decode the randomized MATCH MOTIF. ROBOTS can earn points by scoring ARTIFACTS in their GOAL and
  building a PATTERN on their RAMP based on the MOTIF. ROBOTS also earn points for moving off the
  LAUNCH LINE.
- During the remaining 2 minutes of the MATCH, human DRIVERS take control of their ROBOT. ROBOTS collect and continue to score ARTIFACTS in their GOAL to earn points. DRIVE TEAM members can retrieve ARTIFACTS from the ALLIANCE'S LOADING ZONE and help their ROBOTS by loading them with ARTIFACTS.
- As time runs out, ALLIANCES can work together to return both of their ROBOTS to the BASE. ALLIANCES that build PATTERNS based on the MOTIF at the end of the MATCH earn additional points.
- The ALLIANCE that earns the most points wins the MATCH and additional RANKING POINTS can be earned through completing other scoring achievements.











#### **AUTO**

- Earn LEAVE points, contributing to MOVEMENT RP.
- Contribute to ARTIFACT scoring as CLASSIFIED or OVERFLOW, contributing to GOAL RP.
- Earn PATTERN points at the end of AUTO based on the MOTIF, contributing to PATTERN RP.
- If ARTIFACTS on the RAMP at the end of TELEOP are the same ARTIFACTS that were scored in AUTO, they will score PATTERN points for both periods based on the MOTIF. They will only score as CLASSIFIED during AUTO.





## **DECODE** is a highly interactive game...

- ROBOTS will be frequently interacting and "sharing" space on the DECODE FIELD.
- Defense is an important and strategic part of DECODE.
- ROBOT-to-ROBOT contact is okay!
  - G420 protects a ROBOT from deliberate damage or damage caused by contact initiated <u>inside</u> the ROBOT CHASSIS.
  - G421 protects a ROBOT from deliberate tipping or entanglement by an opponent ROBOT.
- ROBOTS should be designed accordingly.





## **Know the Protected Zones on the Field (G424-G427)**

- For G424-G427, it doesn't matter which ROBOT initiates the contact.
- G424, G426, & G427 all follow the same guidance: it doesn't matter which ROBOT is in the
  protected zone when contact occurs between opponents in the zone.
  - GATE ZONE (G424) and LOADING ZONE (G426) protections apply throughout the MATCH.
  - BASE ZONE (G427) protection only applies during the last 20s of the MATCH.
- G425 is unique in that a ROBOT in its own SECRET TUNNEL ZONE is not protected; a ROBOT violates this rule when it is in the opponent's SECRET TUNNEL ZONE and contact occurs between opposing ROBOTS.
  - SECRET TUNNEL ZONE (G425) protection applies throughout the MATCH.

## **Read Competition Manual**





## **GOAL, GATE, OVERFLOW. Oh my!**

- Scoring of ARTIFACTS as CLASSIFIED or OVERFLOW happens as the ARTIFACT transitions through the SQUARE on the CLASSIFIER.
  - CLASSIFIED ARTIFACTS must transition directly to the RAMP.
  - OVERFLOW ARTIFACTS do not meet the requirements of CLASSIFIED ARTIFACTS.
- An ARTIFACT must meet <u>all</u> the following conditions to score as either CLASSIFIED or OVERFLOW:
  - enter the open top of the GOAL,
  - go under the archway of the GOAL, and
  - pass through the SQUARE.





## **DRIVE TEAM Changes**

- Up to 8 total DRIVE TEAM members per ALLIANCE (up to 4 per team) per MATCH.
- Each team may have one or more HUMAN PLAYERS per MATCH, allowing more STUDENTS to participate at the FIELD.
- DRIVE COACH has different restrictions (e.g., cannot contact ARTIFACTS G430, cannot handle gamepads – G429) than other DRIVE TEAM members.

Table 10-1: DRIVE TEAM roles						
Role	Description	Max./ DRIVE TEAM	Criteria			
DRIVE COACH	a guide or advisor	1	any team member and may be an adult must wear "DRIVE COACH" badge			
DRIVER	an operator and controller of the ROBOT		STUDENT, must wear a "DRIVE TEAM"			
HUMAN PLAYER	a SCORING ELEMENT manager	3	badge			

A STUDENT is a person who has not completed high-school, secondary school, or the comparable level in their home region as of September 1st of the current season.





#### **HUMAN PLAYER**

- HUMAN PLAYERS may load SCORING ELEMENTS into their ROBOTS.
  - Each team optionally contributes a HUMAN PLAYER for loading their ROBOT
- A HUMAN PLAYER may be in the LOADING ZONE at the same time as a ROBOT.
  - This allows teams with basic ROBOTS to focus on scoring and contribute to the MATCH score (e.g., ROBOT does not have intake to collect SCORING ELEMENTS on the FIELD on their own)
- There are rules for HUMAN PLAYERS while loading ROBOTS.
  - e.g., no transitive ROBOT-SCORING ELEMENT-human contact or direct ROBOT-human contact is allowed per G431.

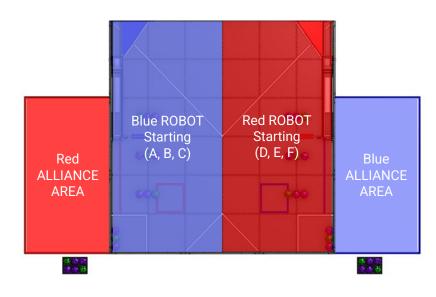
Make sure to **review the Competition Manual**, specifically section 11.4.6 for complete HUMAN PLAYER and loading rules.





## MATCH Set-up (G304)

- ROBOTS are set up on the other side of the FIELD from the ALLIANCE AREA.
  - Blue sets up in columns A/B/C but stands on FIELD right.
  - Red sets up in columns D/E/F but stands on FIELD left.



- Pre-loaded SCORING ELEMENTS come from their own ALLIANCE AREA. (Section 10.3.4 SCORING ELEMENTS)
- ROBOT must start over a LAUNCH LINE (including DEPOT) & contacting a GOAL or wall.



# Robot Construction



n Manual: Section 13 / Tournament

## Reduced max servo count to 10 servos (was 12)

## Scoring Elements Stay with the Field

- Make sure you can quickly, simply and safely remove scoring elements from your robot and remove your robot from the field while it is powered off.
- Consider this rule when developing your robot.





## **Expansion Limits**

- Robots must remain within an 18 in. cube until the last 20 seconds of the MATCH.
- After the MATCH has started, ROBOTS may expand beyond the STARTING CONFIGURATION but must stay within the 18in cube size.
- During the last 20s of the MATCH,
   ROBOTS can expand <u>in height</u> up to 38 in.
- Expansion limit rules are: R105, G414, and G415

Figure 12-1: Horizontal Expansion Limit

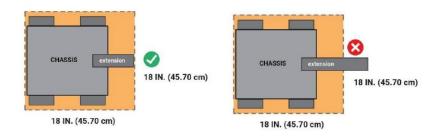
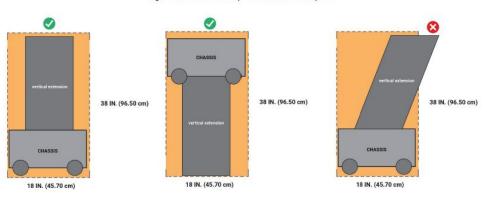


Figure 12-2: Vertical Expansion Limit Examples





# QUALIFICATION RANKING



Competition Manual: Section 13 / Tournament

#### Teams will now be ranked based on Ranking Points (RPs) for Qualifying Matches

- RPs are units credited to a team based on their ALLIANCE'S performance in <u>Qualification</u> MATCHES.
- RPs are awarded to each eligible team at the completion of each Qualification MATCH.
- A team's RANKING SCORE
   (RS) is the average number of
   RANKING POINTS earned by a
   team throughout their
   Qualification MATCHES
   (excluding any SURROGATE MATCH).
- Average Ranking Points (Rank Score) are the 1<sup>st</sup> order sort for Qualification Ranking

#### Teams are ranked in order, using the following sorting criteria:

Table 13-1: Qualification MATCH ranking criteria

Order Sort	Criteria		
1 <sup>st</sup>	RANKING SCORE (RS)		
2 <sup>nd</sup>	Average ALLIANCE MATCH points, not including MINOR FOULS and MAJOR FOULS (Average MATCH points minus FOULS)		
3 <sup>rd</sup>	Average BASE points		
4 <sup>th</sup>	Average AUTO points		
5 <sup>th</sup>	Random sort by the FIRST event management software		



#### **Qualification Ranking - Rank Points**



#### **How Rank Points are Earned**

Teams earn RPs from a Win or a Tie.

- Win is worth 3 RPs
- Tie is worth 1 RP

Additional scoring achievements can also earn extra RPs (up to 3 RPs)

 <u>Thresholds</u> will vary for these achievements as event levels progress.

## Teams can earn up to 6 RP during a MATCH

	Table 10-3: DECOD	Qualifiers	
RP Type	FIRST Championship	Regional Championships	All Other Events*
MOVEMENT RP	ТВА	21	16
GOAL RP	ТВА	ТВА	36
PATTERN RP	TBA	TBA	18

LET'S BREAK DOWN THE RP TYPES



#### MOVEMENT RP

Combined LEAVE + BASE points earned at or above threshold = 16 for qualifier events (21 for Regional Championship).

- Is a combination of LEAVE points earned in AUTO and BASE points earned in the endgame
- Examples: Multiple combinations of ROBOT accomplishments can earn this RP
  - 2 LEAVE (3 pts each) + 1 fully returned (10 pts each) =
  - 2 LEAVE (3 pts each) + 2 partially returned (5 pts each) = 16
  - 1 LEAVE (3 pts each) + 1 fully returned (10 pts each) + 1 partially returned (5 pts each) = 18
  - 2 fully returned (10 pts each) + 10 pt bonus for 2 fully returned = 30
  - And more!

## Meet the threshold and receive the ranking point



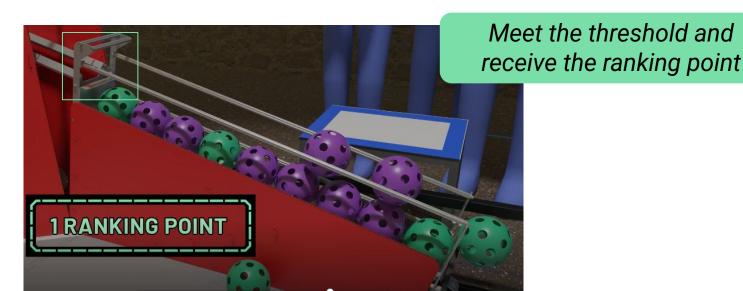
Read the competition manual for what is considered fully and partially returned. Section 10.5.3



#### GOAL RP

Number of ARTIFACTS scored through the SQUARE at or above threshold = 36 ARTIFACTS for qualifier events (Regional Championship threshold TBA.)

- Includes ARTIFACTS scored as CLASSIFIED & OVERFLOW.
- Does not include ARTIFACTS scored in the DEPOT.





#### ► PATTERN RPs

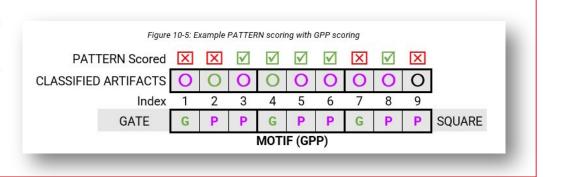
Meet the threshold and receive the ranking point

PATTERN points earned at or above threshold = 18 for qualifier events (Regional Championship threshold TBA)

- Teams earn 2 points for each matched index.
  - Each index scores separately, a full MOTIF is not required.
- All 9 indices matched at the end of AUTO and/or TELEOP = 18 points

Example:

ARTIFACTS that score 5
PATTERN matches (10 points)
for the MATCH period.





#### **Online Score Calculator**



https://ftc.game/calculator





## **Season Resources – Quick links**

ftc.game	Game and Season Page	
ftc.game/manual	Competition Manual PDF	
ftc.game/cm-html	Competition Manual HTML	
ftc.game/cm-html#R104	Direct Rule Linking (Example Rule R104)	
ftc-resources.firstinspires.org/ftc/field	Playing Field Resources, Field CAD	
ftc-resources.firstinspires.org/ftc/team	Team Resources, StarterBot Links	
ftc-resources.firstinspires.org/ftc/volunteer	Volunteer Resources (coming soon)	
ftc-resources.firstinspires.org/ftc/event	Event Resources (coming soon)	
ftc-events.firstinspires.org/	FTC Event Listing and Results	
ftc-scoring.firstinspires.org/	Avatars, Hybrid Judging, Premier Event Preferencing	
ftc.game/calculator	Practice Scoring Calculator	





## **Deciphering DECODE**

## **Reminder:**

- These are thoughts to get you started!
- Review the Competition Manual!
- Keep an eye out for Team Updates!

Good luck and have fun!