Pennsylvania 2025-2026 Season Kickoff

Tom Zawislak
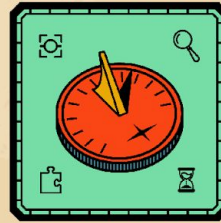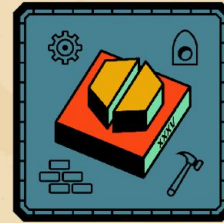
FTC Program Delivery Partner - Pennsylvania FIRST Robotics

Welcome!

Agenda

- Congrats to 2024-2025 Championship and Premier Event Teams

- Pennsylvania 2025-2026 FTC Season Overview

- FTC PA Grants

- **Important *FIRST* Tech Challenge Team Guidance – Key Dates; Resources; Competition Manual; Advancement and Judging**

- Game Reveal – 12:00 Noon

- Game Q&A with Pennsylvania Head Referee – 12:45 pm

FIRST Championship − Houston (4 Div. 256 Teams)

20153 Silver Wolves Kennett Square (PA Championship − Inspire Award 1st Place)

Ochoa Division − 1st team selected by the #1 Alliance.

Advanced to Round 3, Match 9 of Double Eliminations before being eliminated.

7244 OUT of the BOX Robotics Thorndale (PA Championship − Winning Alliance Partner)

Jemison Division − 3rd Place Innovate Award!

2nd team selected by the #2 Alliance in Jemison Division. Advanced to Round 5, Match 13 before being eliminated

FIRST Championship – Houston (continued)

14423 RoboCorns Exton (PA Championship – Inspire Award 2nd place)

Edison Division – Winner of the Control Award!

18603 TeraBridges Pittsburgh (PA Championship – Inspire Award 3rd place)

Edison Division – Winner of the Connect Award!

Also, Captain, Alliance 7 Eliminated Round 2, Match 6

Premier Event Teams

Mexico Premier Event **–** Monterray, NLE Mexico

Team 21364, FIRST Try – Winning Alliance

European Premier Event - Eindhoven, Noord-Brabant, Netherlands

Team 8393 The Giant Diencephalic BrainSTEM Robotics Team – Winning Alliance

Premier Event Teams (continued)

Run for the Robots Premier Event – Lexington, Kentucky

8645 **Robotic Doges** Hollsopple, PA, USA

13474 **MARS: Curiosity?** Mars, PA, USA

16776 **MARS: Opportunity!** Mars, PA, USA

(Apologies if we missed any teams)

PA Season Overview

Event Scheduling

- We have scheduled twelve (12) Qualifiers. There may be a change of location and dates to the Lancaster Qualifiers in the coming week TBD

- Qualifiers will be held over 6 weekends, 1 each on Saturday and Sunday

- Qualifier season will start earlier on Nov 22nd/23rd and be completed by Feb 22nd, 2026

- Qualifiers are expanded and will be 24, 28, 32, 36 or 40 team events depending on venue space and registration interest. **More slots, more opportunities to compete!**

PA Season Overview

Event Scheduling

- FTC Event page: 2025-2026 Season –
https://www.ftcpenn.org/ftc-events/2025-2026-season

- Pennsylvania Championship will be March 14th/15th, 2026 Saucon Valley Schools, Hellertown, PA

- **Registration for Qualifiers** will open **Saturday, September 20th, 2025, at 8:00 am**

10

PA Season Overview

Scheduled Qualifiers

Nov 22nd/23rd 2025 - York Country Day School, York, PA

Dec 2025 – Lancaster Area Qualifiers Note: subject to change

Jan 10th/11th 2026 – Seneca Valley HS, Harmony, PA

Jan 31st/Feb 1st 2026 – Bensalem HS, Bensalem, PA

Feb 14th/15th Coatesville Area HS, Coatesville, PA

Feb 21st/22nd - Boyce Middle School, Upper St. Clair, PA

Special thanks to our Host teams and their schools for making this season happen!

PA Season Overview

Workshops and Scrimmages

- Open to neighboring state teams, if room.

- Any team may hold a Team Powered Workshop or Scrimmage. Let us know!
  - Sat Oct 18th 2025 Ramp Riot Scrimmage, Wissahickon, PA
  - Sat Nov 8th 2025 Longhorn Roundup Scrimmage, Kennett Square, PA
  - Thu Dec 4th 2025 Philadelphia Scrimmage, Central High School (preceded by 2 Workshops)
  - Sat Dec 13th 2025 Green and Red Scrimmage, Gibsonia, PA
- Coaches Calls (2) Wed Sep 10th and Wed Sep 17th, 2025

- Teams advance from PA State Championship to *FIRST* Championship in Houston, TX (April 29 - May 2, 2026)

PA Grant Opportunities

Announced in Team Email Blasts

Pennsylvania FIRST Robotics will be administering three Sponsor Grants this season to grow and expand teams

Arconic Foundation – To be opened soon, for FIRST Registered FTC Rookie and Veteran teams located in 10 PA counties contiguous with Arconic offices or manufacturing facilities. Allegheny, Berks, Butler, Columbia, Dauphin, Lancaster, Lebanon, Montour, York, and Westmoreland

PA Grant Opportunities

Google.org - The priority of the program for schools and organizations is to reduce barriers and increase FIRST Tech Challenge participation of middle school-aged students who are under-resourced or have been traditionally underrepresented in STEM.

The Google.org grants has stipulations and requirements as dictated by the sponsor organization. PA FIRST Robotics is obligated to meet the requirements

On-line applications are open. Grants will be processed starting this coming week.

PA Grant Opportunities

<u>PA Department of Education (PDE) Grant</u> – Philadelphia Teams only

- Pennsylvania FIRST Robotics (PFR) has secured a $200,000 job training and education grant from the Pennsylvania Department of Education to support Philadelphia FIRST Tech Challenge and FIRST Robotics Competition teams and coaches during the 2025-2026 school year. It is intended for Team and Coach Support stipends and Training.

- This grant is only possible thanks to the stalwart support of State Senator Nikil Saval. Thanks also to the students and coaches of the Central High School RoboLancers whose advocacy in Harrisburg over the last year paved the way for this grant.

- **Applications for FTC are still available**. *FIRST* Robotics Competition Teams on September 30th. Applications from rookie teams will be considered after these deadlines, if funds remain.

- https://www.ftcpenn.org/team-grants

FTC General Season Information

Season Overview

Game Manuals and Kickoff Video

Playing Field Materials and Manuals – after 12:30 pm http://ftc.game

- Videos and Promotional Materials
- Official Q&A Forum Documentation
- Robot Building Resources
- Team Management Resources
- Youth Team Member Registration

https://www.firstinspires.org/robotics/ftc/game-and-season

Key Season Dates

- **September 22**: Team Q&A Opens

- **October 27**: Earliest date for official events (League Meets, League Tournaments, or Qualifying Tournaments)

- **November 17**: Total of registered teams per region helps set *FIRST* Championship Allocations

- **March 15**: Last date for Regional Championship Events to advance to the *FIRST* Championship

- **March 30**: Last day to complete payment and housing registration for the *FIRST* Championship

Key Season Dates Blog

18

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

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 Section 16: Glossary for details.

Competition Manual Sections

AI Rules Assistant

New this year: AI 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.**

With grant support from Google.org

Team Updates and Team Q&A

- **Competition Manual** is updated frequently throughout the <u>Adults</u> can sign up to get an email notification for all Team Updates.

  - ftc.game/tu-combined links to a PDF of all the team updates this season.

- **Team Q&A** is 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. Team Q&A opens on Sept 22nd. Instructions: ftc.game/q-a-help . Log in here: https://ftc-qa.firstinspires.org/

Coaches: Sign up here to get Team Update emails

Team Update 00

- The first Team Update of the season is out now!

- TU 00 includes:

  - Major changes from last season's INTO THE DEEP to this year's DECODE manual
  - Updates from the V0 Preview Release
- Find it at: ftc.game/tu-00

FTC Team Calls

- These are for *YOU*!

- Register to join a call and get help from *FIRST* Tech Challenge experts

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

Team Call Schedule

FTC 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 https://ftc-scoring.firstinspires.org/

  - Avatar submission is only available for fully registered teams.

Image Credit Rhett Adam FRC 7525

Advancement and Judging

Points-based Advancement Model

- Everything a team does well at an event helps contribute to their advancement points.

- Teams will be ranked based on the points they earn at an individual event.

- This model rewards **well rounded teams** who do well with Awards and Robot performance.

- Check out the Advancement & FIRST Championship Update blog more information.

- No math required! The scoring system will do the math, but you can see how points are calculated in Section 4: Advancement.

Advancement Changes
Announcement Blog

FIRST Championship and Premier Event Opportunities

- As announced in the Advancement & FIRST Championship Update blog, the *FIRST* Championship will have **336 *FIRST* Tech Challenge teams this year (up from 256 last year), 6 divisions.**

- *FIRST* Tech Challenge Premier Events are back and bigger! We have several returning and new locations:

New England Premier Event
Mexico Premier Event
Michiana Premier Event Presented by GEARS
Run for the Robots Premier Event
European Premier Event
Chicago Robotics Invitational Premier Event

Canadian Rockies Premier Event @ K Days
Canada Cup - **Niagara** Premier Event
İstanbul Premier Event
Western Edge Premier Event
Cowtown Invitational Premier Event

FIRST Championship and Premier Event Selection Process

- Specific details will be announced in a blog by November.

- General Process Notes:

  - Teams will be able to submit a ranked choice event list for which events they would like to attend in <u>FTC Scoring</u>.

  - Teams will be able to indicate if they have sibling teams for travel logistics.

  - If there are unfilled spots at an event, teams will be able to indicate if they would like to attend more than one event.

Section 6: Awards (A)

- **Formal Interviews** are now called "Structured Interviews". There is no format change.

- **PORTFOLIOS** may only include content from Jan 1, 2025 or later. This universal date helps Judges and Teams understand what content can be included in the Portfolio.

- 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.

- All non-Inspire awards, in Section 6.3, are given same number of advancement points. This includes the Judges' Choice Award!

- Teams who have won 1st place Inspire at a Qualifying Tournament or League Tournament **can** be considered for 2nd or 3rd place Inspire at subsequent Qualifying Tournaments or League Tournaments.

- Teams can only receive one Judged Award recognition per event (1st, 2nd, or 3rd). This allows us to celebrate the accomplishments of many teams.

Dean's List Award – New Deadlines!

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

Dean's List Award – Important Dates

September 6, 2025	Nominations open
December 15, 2025	Deadline for all nominations
Dates Varied	Finalists announced at Regional Championship Tournaments
May 1, 2026	10 Winners announced at FIRST Championship

Dean's List Changes Announcement Blog

THANK YOU!

Thank you for your attendance and all that you do! We are looking forward to another innovative, competitive and fun season. Special Thanks:

Philadelphia - PA FIRST Robotics and Temple University, College of Engineering

Exton – Chester County Council – Scouting America and Downingtown Area Robotics.

East - FTC Team`16468 Green Lemons and Unionville/Chadds Ford SD

South Central – FTC Teams 9242 and 21324 and York Country Day School

West – Mars Robotics Association FTC teams and North Catholic High School FRC and FTC, Cranberry Township, PA
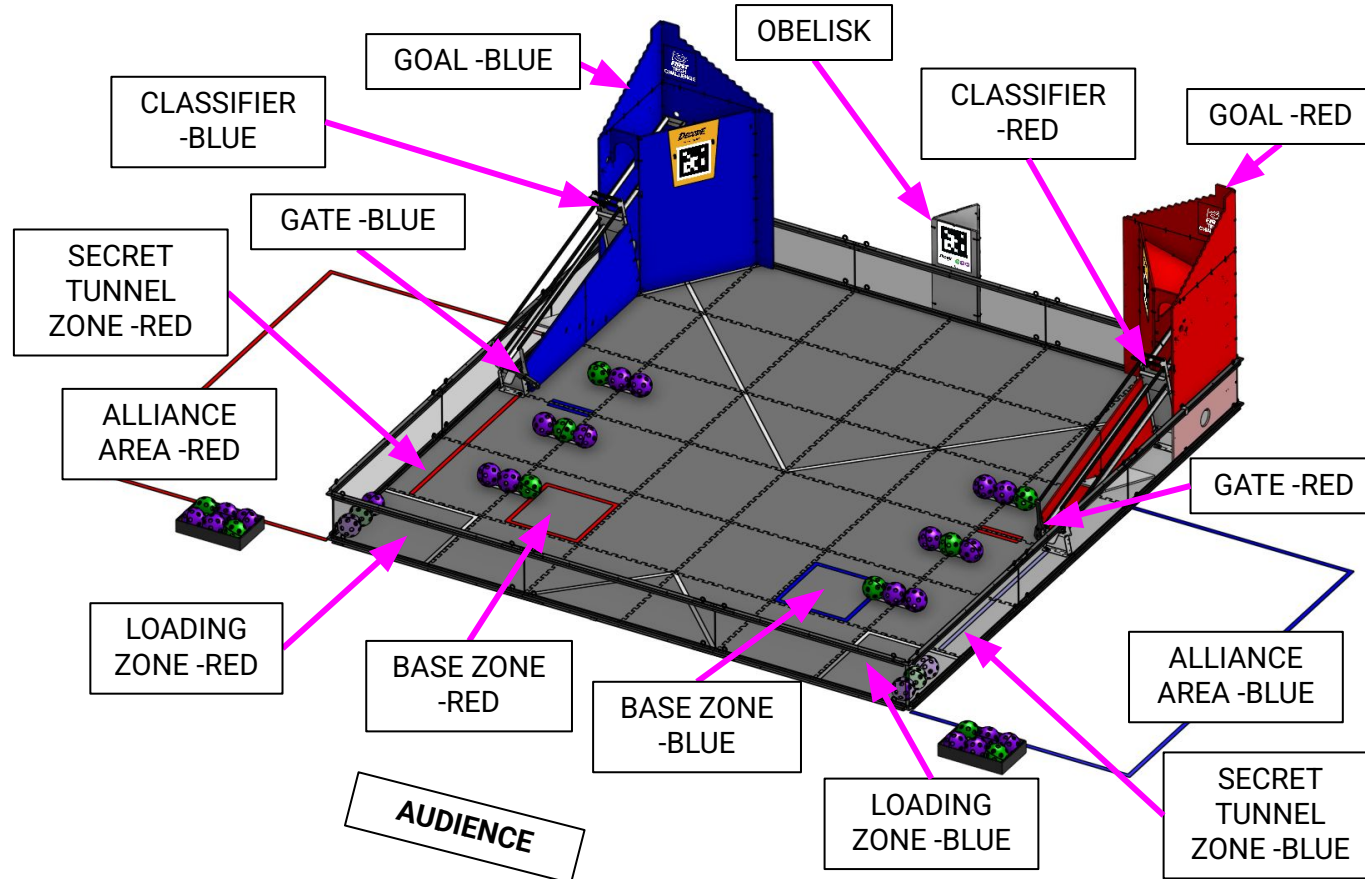
DECODE

PRESENTED BY ◯ **RTX**

Game Overview

⚠️⚠️Disclaimers⚠️⚠️

- 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 though completing other scoring achievements.

GOAL -BLUE

OBELISK

CLASSIFIER -BLUE

CLASSIFIER -RED

GOAL -RED

GATE -BLUE

SECRET TUNNEL ZONE -RED

ALLIANCE AREA -RED

GATE -RED

LOADING ZONE -RED

BASE ZONE -RED

BASE ZONE -BLUE

ALLIANCE AREA -BLUE

LOADING ZONE -BLUE

SECRET TUNNEL ZONE -BLUE

AUDIENCE

Ranking Points (RPs)

- Average Ranking Points (Rank Score) are the 1st order sort for Qualification Ranking

- Teams earn RPs from a Win or a Tie. New this year:

  - Win is worth 3 RPs

  - Tie is worth 1 RP

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

  - Teams can earn up to 6 RP during a MATCH

- Thresholds will vary for these achievements as event levels progress.

MOVEMENT RP: Combined LEAVE + BASE points earned at or above threshold

GOAL RP: number of ARTIFACTS scored through the SQUARE at or above threshold

PATTERN RP: PATTERN points earned at or above threshold

Table 10-3: DECODE RP thresholds

RP Type	FIRST Championship	Regional Championships	All Other Events*
MOVEMENT RP	TBA	21	16
GOAL RP	TBA	TBA	36
PATTERN RP	TBA	TBA	18

MOVEMENT RP

Combined LEAVE + BASE points earned at or above threshold = 16 for events under Regional Championship level

- Is a combination of LEAVE points earned in AUTO and BASE points earned in the endgame

- Multiple combinations of ROBOT accomplishments can earn this RP

  - 2 LEAVE (3 pts each) + 1 fully returned (10 pts each) = `16`
  - 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!

GOAL RP

Number of ARTIFACTS scored through the SQUARE at or above threshold = 36 ARTIFACTS for events under Regional Championship level

- Includes ARTIFACTS scored as CLASSIFIED & OVERFLOW.

- Does not include ARTIFACTS scored in the DEPOT.

PATTERN RPs

PATTERN points earned at or above threshold = 18 for events under Regional Championship level.

- 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.
- Below is an example of ARTIFACTS that score 5 PATTERN matches (10 points) for the MATCH pe

Figure 10-5: Example PATTERN scoring with GPP scoring

DRIVE TEAM Changes

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	3	STUDENT, must wear a "DRIVE TEAM" badge
HUMAN PLAYER	a SCORING ELEMENT manager		

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.

- 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.

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.

Section 12: ROBOT Construction Rules (R)

- New legal components

  - Additional legal motors (also rebranded MATRIX to goBILDA 5000)
  - Power control electronics (switches, servo power block, battery)
- Actuator Count Changes

  - Reduced maximum servo count to *10* servos
- Expansion limits are back and smaller

  - Robots must remain within an 18 in. (45.70 cm) cube until the last 20s of the MATCH.
  - During the last 20s of the MATCH, ROBOTS can expand in height up to 38 in.
  - Expansion limit rules are: R105, G414, and G415

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.

Red ALLIANCE AREA

Blue ROBOT Starting (A, B, C)

Red ROBOT Starting (D, E, F)

Blue ALLIANCE AREA

- 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.
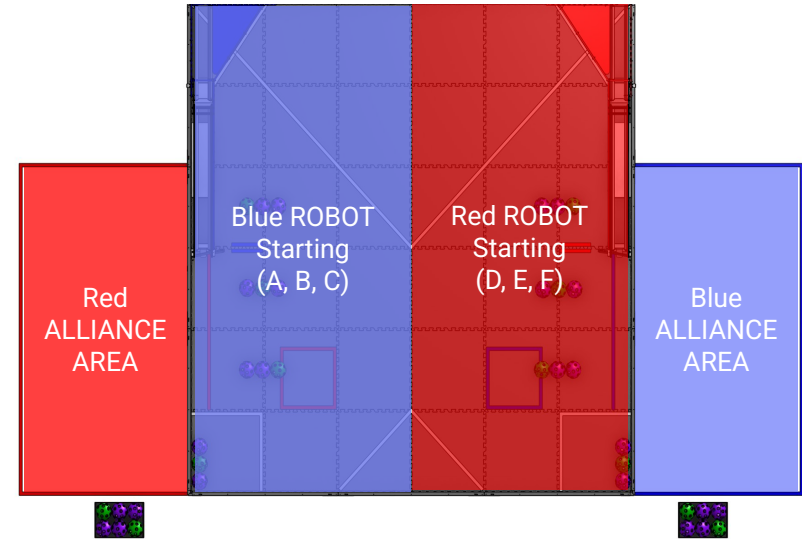
AUTO

- 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 **inside** the ROBOT CHASSIS.
    - G421 protects a ROBOT from deliberate tipping or entanglement by an opponent ROBOT.
- ROBOTS should be designed accordingly.

Protected Zones (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.

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 **all** 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.

Online Score Calculator

https://ftc.game/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!