

# WHAT IS FTC?

FTC, also known as FIRST Tech Challenge is a robotics competition for students in grades 7–12 to compete head to head, by designing, building, and programming a robot to compete in an alliance format against other teams.

#### Three parts of a good FTC team:

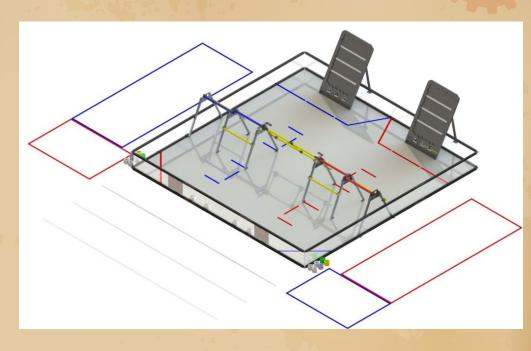
- Mechanical (building/designing the robot)
- Software (coding/developing algorithms)
- Outreach (reaching to mentors/community/marketing)

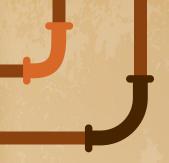
## FTC ROBOT GAME

#### A Robot Game is 2:30 seconds long (2 vs. 2 matches)

- Autonomous period (30 seconds)
  - Preprogram code for the robot to score.
  - Consists of object detection to score bounce points.
- > Tele-Op (90 seconds)
  - Drivers drive the robot to score points for their team.
- Endgame (30 seconds)
  - Drivers drive the robot to continue to score points.
  - Drivers can perform Endgame tasks to gain bounce points for their team.
- Breaking rules will result in penalty points.

#### Centerstage (23-24)





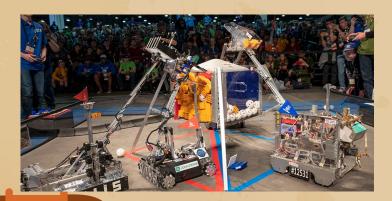
# LAST SEASONS CHALLENGE: CENTERSTAGE





#### FIRST TECH CHALLENGE (FTC)

- ➤ Grades 7-12
- Robots are constructed in primarily metal, 3D printed parts, etc.
- Robots versus others in scoring points.
- Primarily focused on the robot and going through the design process.
- Season: September March



#### FIRST LEGO LEAGUE (FLL)

- IIOI LLOO LLAGGE (I LL)
- ➤ Grades 4-8
- Robots are constructed in a only Lego parts.
- Pre Programmed robot attempts to complete as many tasks as possible to maximize points.
- Contains an innovation project that attempts to solve a problem the world is facing.
- Season: August December



## WHO ARE THE SPARTANS?

#### **INTRODUCTION**

- ➤ 4th year Community Team
- Based out of Lexington, MA

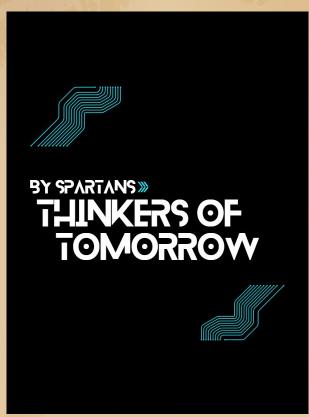
#### MISSION/VISION

Grow technical skill sets in robotics, and create change in MA STEM.



# WHO ARE THE SPARTANS?





#### **OUTREACH**

- Thinkers of Tomorrow Nonprofit
- Showcases and Events

#### **IMPACT**

- > 50+ students mentored seasonally.
- > Outreached to 10,000 people.

## **LAST SEASON EVENTS**

#### Here's where we went last season!

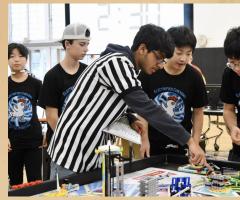
#### Competition

- MA Robostorm 9.1 Qualifier
- MA WNE Qualifier
- Philadelphia Open Qualifier
- MA State Championship

#### Outreach

- Fenway Park STEM Day
- Bedford Day
- Mass Robotics Block party
- Einstein Robotics Fair
- FLL Championship Showcase







### **ACHIEVEMENTS AND AWARDS**

#### **AWARDS (LAST 3 YEARS)**

- Inspire Award
- Winning Alliance (2 times)
- Control Award (4 times)
- Motivate Award (2 times)

#### OTHER ACCOMPLISHMENTS

- Outreached to over 10,000 people amongst several events
- Mentored and Funded 9 FLL teams in underprivileged schools
- Qualified for the State Championship 2 years in a row
- Ranked highly amongst MA competitors



## **RESOURCES**

#### Here are some of the resources our team offers!

#### Workspace

- Part Storage, Game Field, and an Online and Physical Workspace.
- ABS and PLA filament 3D printer!
- Hundreds of part types for building and design from both Rev Robotics and GoBilda!

#### > Team Resources

- Several professional and student mentors, from past captains to professional robotics institutions such as MarkForged, Einstein's Workshop, and more!
- Team merchandise, including hoodies!
- Snacks and food on competition days!

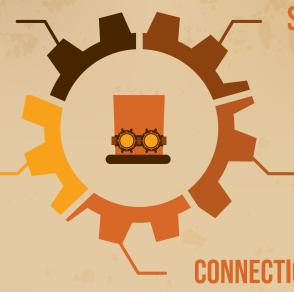


## WHY FIRST TECH CHALLENGE?

#### **STEM INSIGHTS**

Learn instrumental skills and core pillars of STEM and their applications.

Brink your passion for robotics to your community, give back to others.



Learn how to effectively design, code and build a competition robot.

Take charge of a subsystem/team.

Meet and network with FIRST members.



# **COMMITMENTS - YOUR ROLE AS A MEMBER**



- 2-3 Meetings a week (in person)
  Mandatory competition and ever Mandatory competition and event attendance



- Specialized roles and responsibility.Be ready to learn and put in the work.



- Create space for mutual growth.
- Bring passion to the team.



# WHAT HAPPENS NEXT SEASON?

Next Season: INTO THE DEEP



# WHAT HAPPENS NOW?



# **WE LOOK FORWARD TO MEETING YOU!**

REGISTER

+ APPLY!

Candidate Google Form: Click this Link





Website: www.spartansftc.com

Email: <a href="mailto:spartans20808@gmail.com">spartans20808@gmail.com</a>

CONTACT

US!





# HANK YOU!

