

EMS PTSA Robotics Club

2021-2022 Accomplishments

- Registration Numbers: 75 students; 17 teams
- Tournaments Participated: 20
- Tournament Awards: 16
- State Qualifying Teams: 16
- World Qualifying Teams 6 (47B, 47C, 47D, 47M & 47W)
- Awards at World Championship: 3 (Excellence Award, Teamwork Division Champion & Energy Award)



VEX IQ Challenge

[Pitching In](#) – This year's game

Visit [PTSA Robotics Club](#) Webpage
for information about this year's
game, rubrics, etc.

EMS PTSA Robotics

- **This Year's Goal:**

- As a team -- design, build & program your robot to attend local tournaments, and potentially qualify for state competition or even world competition
- And/or as an individual -- design, build & program your virtual robot

- **Team Requirements**

- Team size 3-5 students
- Must have a parent coach (technical advisor and manager)
- 2+ hours of teamwork per week (per each team's discretion)
- 5 8 club teaching meetings on Wednesdays after school (Sep. – Nov.)
- Q & A by emails with coaches

Topics Covered in Club Meetings

- Structural design (theory & practical)
- Engineering notebook
- Gearing basics
- Programming (Blockly, RobotC)
- Tournament strategy & problem solving
- Virtual robot design & construction (SnapCAD)
- Virtual robot programming (VEXcode VR)

Presented by HS student coaches with VEX Worlds experience

Club Meeting Materials:

- Team Robotics kit
- Computer (school-issued is fine)
- SnapCAD installed

How to Join Robotics Club

The following process must be followed step by step:

1. 3-5 students form a team (Club chairs **do not** form teams and they **do not** force students onto other teams)
2. Find a parent/guardian willing to be your coach
3. Provide a team name
4. The Team Coach uses [this link](#) to enter the team's information
5. Each student must complete permission slip ([here](#)) and submit it to the coach. Coach collects all slips and submits together to robotics@evergreenpts.org.
6. Upon receipt of payment and all team members' permission slips, the coach will be given a date and a time to pick up your robotics kit!

All steps must be completed **by the end of September (9/30)**.

Parent Coach Commitments

- Be a PTSA member ([join here](#)) and [LWSD approved volunteer](#)
- Follow the [Student-Centered Policy](#) released by REC Foundation
- Register team with Club using [this link](#)
- Manage all team activities and mentor technically
- Coordinate parents and students and communicate with club chairs
- Organize and supervise outside of school meetings
- Responsible for the team and the team conduct outside school and at tournament events

Registration & Expenses

Per Student: (paid to PTSA Robotics Club)

- \$40 Robotics club fee (covers parts expenses) collect at club registration

Per Team: (paid to REC Foundation later)

- \$100 one-time registration fee with REC Foundation to enter VEX IQ tournaments
- \$45 - 50 per local tournament registration fee
- There may be more expenses for state and world competitions if teams qualify and wish to attend (Travel cost for hotel and flight etc.)

Competition Resources

- Competitions are organized by [REC Foundation](#)
 - [WA VEX IQ events list \(on robotevents.com\)](#) - nothing yet
 - [YouTube channel](#) - e.g. 2021 Virtual REC Foundation Summit
- Hardware and software supplied by [VEX Robotics](#)
 - [YouTube channel](#) - not a lot yet for this year
 - [Discussion forums](#)

Competitions in 2021-2022

- Typical season
 - Most regionals: November-January
 - State: End of February
 - Worlds: End of April
- Last season
 - Most regionals: January-February
 - State: End of February
 - Worlds: End of May

Competitions in Last Year

- Emphasis on less travel
 - More invitational-only events
- Socially-distanced events
 - Skills-only events – remote, or in-person with 1 driver ([Guide](#))
 - Remote judging ([Rules](#))
- Rule changes to ease remote teams
 - Digital Engineering Notebook (must print for in-person events)
 - More [online challenges](#) (but not much yet)

Team Meeting Tips

- Rotate kit among team families
- Hold team meetings at an open space with face masks on
- [Online Challenges](#)
- Virtual robot design, construction & programming



EMS Eagle Tournament Plans

- Two tournaments, one on early January, another one in early February.
- In-person tournaments if situation allows. Might be remote tournaments.
- Mandatory to EMS teams

Volunteers

- Weekly Club Meeting Volunteers (Sep – Feb)
 - Three volunteers, to setup field, help students check out parts if in-person
 - One volunteer per virtual classroom, to witness the class activities if remote
- Team Coaches
- Tournament Helpers
- Company Matching Volunteer Hours