

EMS PTSA ROBOTICS CLUB

2021-2022

ACCOMPLISHMENTS

- Registration Numbers: 88 students; 22 teams
- Tournaments Participated: 8
- Tournament Awards: 18
- State Qualifying Teams: 9
- World Qualifying Teams 6 (47C, 47D, 47J, 47R, 47T & 47X)
- Awards at World Championship: 7 including the highest award



EMS PTSA ROBOTICS

- **Goal:**
 - As a team – design, build, & program a robot to attend two EMS and other local tournaments, and potentially qualify for State or even Worlds
- **Team Requirements**
 - Team size 3-5 students
 - Must have a parent coach (manager and possibly technical advisor)
 - 2+ hours of teamwork per week (per each team's discretion)
- 8 club teaching meetings on Wednesdays after school (Sept. – Nov.)
- Club meeting work time & scrimmages
- After-season game (optional)
- Q&A at weekly meetings & by emails with coaches



[Slapshot](#) – this year's game

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

VIDEOS

- <https://youtu.be/vF3I8FscrKo> - 2022-23 VEX IQ Game
- <https://youtu.be/TFcw7fHoskI> - Slapshot Example Robot
- <https://youtu.be/k0RBpAq5PvM?t=405> - 2021-22 Example Match

TOURNAMENT DATES

- Two EMS tournaments on January 8th & February 12th
 - Mandatory to EMS teams.
- Optional local tournaments from 12/10/22 to 2/25/23
- Potential to qualify for State (3/12) and Worlds (start of May)
- After-season club-organized game (March)

TOPICS COVERED IN CLUB MEETINGS

- Engineering notebook
- Structural design (theory & practical)
 - Chassis & arm construction
- Gearing basics
- Programming (blocks, text in C++)
- Tournament structure & strategy
- Presented by HS student coaches with VEX Worlds experience
- Club Meeting Materials:
 - Team robotics kit
 - Computer (school-issued is fine)

COMPETITION RESOURCES

- Competitions are organized by [REC Foundation](#)
 - [WA VEX IQ events list \(on robotevents.com\)](#)
 - [YouTube channel](#) - e.g. 2022 Virtual REC Foundation Summit
- Hardware and software supplied by [VEX Robotics](#)
 - [YouTube channel](#)
 - [Discussion forums](#)
- [Ben Lipper's Channel](#)
- [Other Slapshot Robot Videos](#)

HOW TO JOIN ROBOTICS CLUB

The following process must be followed, step by step:

1. 3-5 students form a team (Club Chair **will not** form teams and **will not** force students onto other teams)
2. Find a parent/guardian willing to be team coach
3. Choose a team name
4. (Team Coach only) use [this link](#) to enter the team's information
5. (All students) complete [this permission slip](#) and submit to team coach
6. (Team Coach only) collect all slips and submit together to robotics@evergreenpts.org
7. Upon receipt of payment and with all team members' permission slips, the team 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 an [LWSD approved volunteer](#)
- Follow the [Student-Centered Policy](#) released by REC Foundation
- Register team with Club using [this link](#)
- Manage all team activities and (if possible) mentor technically
- Coordinate parents and students and communicate with club chairs
- Organize and supervise outside of school meetings
- Be 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) collected at club registration

Per Team (paid to REC Foundation later):

- \$100 one-time registration fee with REC Foundation to enter VEX IQ tournaments
- \$50-60 per local tournament (registration fee)
- (Optional) field & game elements (\$636) for individual team use
- Potentially more expenses for state and world competitions if teams qualify and wish to attend (travel cost for hotel and flight etc.)

TOTAL COST (INCLUDING TAX & SHIPPING) : \$638



Game Elements Set
[Order](#)



Field (Reusable)
[Order](#)

VOLUNTEERS

- Weekly Club Meeting Volunteers (Sep – Feb)
 - Three volunteers, to setup field, help students check out parts
- EMS Tournament Helpers (>40 volunteers per tournament)
- Team Coaches
- Company Matching Volunteer Hours