

LS Robotics Overview 2025-2026

Robotics

Robotics is teamwork, leadership, communication skills, STEM concepts, competitions. Students will strategize, create, document - journal, test, strategize (again), compete, and participate in judge's interviews.

Design, Build, Drive!!

Teams

Size: 6 students max

Student Roles (Potential): Programmer, Builder, Driver, Engineering Journal, Strategist, Research, Media Specialist

Parent Mentor/s: One to two parent volunteers

Sponsor (Jodi Lunsford) Involvement

The role of the robotics' sponsor is to support and equip the robotics teams throughout the robotics season. The responsibilities of the sponsor include managing finances, ordering equipment, and team registration. At the start of the season, the sponsor will ensure each team is registered and equipped with the VEX IQ 2nd generation kit, game, and field. Throughout the rest of the season, requests for equipment orders should be made directly to the sponsor via email.

Parent/Mentor Involvement

Parent/mentor volunteers will be responsible for orchestration, attendance, and supervision of practices and competitions, as well as registering for competitions. Mentors will help the students get organized and provide guidance to the team as needed. Please ensure that students are upholding the values and expectations as detailed in the Student and Family Handbook. Any instance of misconduct should be reported to the sponsor immediately. A mentor does NOT have to be technically minded, an engineer, or a programmer. They just need to have a true interest in helping the students learn and grow. Parents and mentors may NOT build or put entries in the journal. They are present for guidance and support only.

Time Commitment

Each team determines their practice schedule and amount of time for practices. Teams should meet regularly in the fall to learn the game, build their robot, program, test, practice driver skills, and "build" their journal. At least one meeting/practice, preferably two, for approximately 2 hours is recommended.

Competitions

Competitions are held in the fall and winter and wrap up with the culmination of the season with State in March. If your team were to advance to Worlds, that competition is held in late April or early May. Most competitions are held on Saturdays, but there are a few offered during the week. Westminster will fund 4 competitions per team. Additionally, we will cover State registration fees for each team that progresses to that level. We will NOT be able to cover registration should your team advance to Worlds as that fee is considerably higher. If your team has a bid for Worlds, please feel free to reach out to me about fund raising opportunities. Each team will choose which competitions they'd like to attend during the regular season and are personally responsible for any travel expenses or hotel fees (as is the case with State) if applicable. A team may register for additional competitions at the expense of the team.

Ways to get to State: Team Challenge, Skills, Excellence Award, Design Award, and Amaze Award - Some of these depend on the size of the competition.

Ways to get to Worlds: Place 1st at State in any of above. Skills is important in the event of double qualifications; more spots will open. Don't forget online challenges. Some of these are World qualifying events.

Registration

Teams are registered and assigned a team number. This number will be displayed (on a “license Plate” that you will be provided) on your finished bot during competitions. You and your team can decide on a name for your team and/or your bot. Notify me of that info, and I will add it to your profile.

To compete, every team member must turn in a VEX registration form. Parents will fill these out in the student’s name. Here is a link if you’d like to fill these out online. You will need to know your team number. Please return these to me if you decide NOT to fill out electronically, and I will make sure they are uploaded in the system.

https://www.robotevents.com/storage/consent_forms/MIE1nwclES5aGJHajfHnN9lgg8rizWgtZxuk5zHv.pdf

Equipment

Each team will be provided a practice field, this season’s game, and a competition kit with which to build their bot. Each team needs access to a laptop or computer that will be used to program their bot. This equipment will be assigned to a team each year and listed under the mentors as “checked out”. It is the team’s responsibility to notify me of any missing or broken parts. All equipment must be returned in the condition of an original competition kit; organized and complete.

Finances

Fees will be assessed at the end of August or beginning of September each year to cover the following components of a robotics season. **Current Fee: \$225 per semester with a year commitment.**

- Team Registration (Approximately \$150 - \$200, depending on how many teams we are registering)
- Robotics T-Shirts (@\$100-150 per team, depending on team size)
- Game (\$134.99 + shipping)
- 4 Competitions (pricing varies @\$40-\$75 per competition on average). **Two competitions in the Fall and two in the Spring.** Teams can register for more competitions at the expense of team.
- 2nd Generation Competition Kit/s and control system for each team (\$690) Other replacement parts as needed are not included in this pricing.
- State (@\$175) WILL be included this year. **Worlds (@\$1200.00) registration fees, hotel and travel expenses are the responsibility of the team.** *State and Worlds are events that a team would have to qualify for through regular season competitions.

*All pricing is as per 2023-2024 season and subject to increases do to changes with VEX

Teams may pursue monetary support from organizations or individuals outside of Westminster. Those funds can be used to purchase or replace parts (those then become property of the team, not the school), additional competitions, travel expenses or any other miscellaneous expenses that may arise.

Additional Resources

- www.robotevents.com
Competitions and Team profile - Mentors may set up their own account but please do not make ANY changes to your profiles or status of contacts.
- www.vexrobotics.com, <https://www.vexrobotics.com/vexcode/virtual-skills>
Product information, field assembly instructions, IQ base bot/s instructions, PDF of legal and illegal parts, game manual (always recheck before competitions, rules will change or be clarified throughout the season), VIQC Hub App, Downloads - This is where you will find build instructions, VEX code and software, VEXos Firmware which will need to be updated and/or check for updates, CAD and SnapCAD to build virtually first, compete in skills challenges virtually – even build a virtual robot to compete, etc....

- www.roboticseducation.org
www.kb.roboticseducation.org

VEX Robotics and the REC Foundation: Entry Points and Digital Engineering Notebooks, Engineering, Notebooking and Coding resources - Entry points are organized by: coaches, educators, parents and students. Go explore the REC Foundation Library at the REC Foundation Website (library.vex.com).