



LOVELAND HIGH SCHOOL
ROBOTICS TEAMS
Tomorrow's Engineers Today



Loveland High School Robotics Tryout Packet 2019-2020 Season



The process to join an LHS Robotics team is outlined below.

1. Apply. (Must complete all three)

- Fill out the online application found on the LHS robotics team website, <http://lovelandrobotics.weebly.com/> by **4/13 at 11:59 pm**. There are some essay questions so be sure to leave time to complete.
- Ask TWO teachers to fill out recommendation forms for you. Bring to tryout OR ask teacher to return.
- Complete the student/parent signature form and bring to your tryout session.

2. Attend. (1 Tryout Session and Parent Meeting)

- Student must attend ONE of the tryout sessions during which applicants will demonstrate their problem solving skills, ability to think creatively, focus under pressure, and to constructively participate in group work. **Tryout sessions will all be held at Loveland High School downstairs in Rm 128.** Please enter through the doors by the cafeteria. Each session will last approximately one hour.
 - Monday 4/15/19 at 2:45 pm
 - Monday 4/15/19 at 7:00 pm
 - Wednesday 4/17/19 at 7:00 pm
- A parent or guardian must attend the parent meeting on Wednesday **4/17/19 at 8:00 pm** in the LHS Cafe. If this is not possible, parent/guardian must contact Ms. Stewart at stewaram@lovelandschools.org to make alternative arrangements.

3. Robotics HW. (To be completed after the tryout session and parent meeting.) Talk to your parent about the team options and verify that your interests have not changed. You will also be asked to complete a summary of your tryout session. More information will be given at the tryout session.

4. Check. (School email and parent email) It is possible that we may need to do some follow up interviews before we make final decisions. This will only be done for special cases in order for us to determine the best fit for a student. All information regarding team selection will be sent to student emails, so be sure to check your school email. If you are asked to join a team, you will need to accept your invitation and attend the first meeting.



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The information in this packet is for all students interested in joining a Loveland High School Robotics Team. Below is some very important information regarding our programs.

General Information

The Loveland High School Robotics Teams are an extracurricular activity that competes in high school robotics competitions. The teams will each build a robot to compete in a unique game in the 2019-2020 school year.

Loveland Robotics competes in two different robotics programs at the high school level. These competitions are run by two different organizations. While there are many similarities between the two programs, there are differences as well.

Mission

To inspire young people to pursue careers in science and technology, by engaging them in a team oriented extra-curricular program where they will develop leadership skills and learn about engineering, mathematics, programming and project management in a fun and creative way.

Vision

Loveland Robotics shares the vision of *FIRST*[®] - "To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders." (Dean Kamen, Founder)

Values

Loveland Robotics shares the values of *FIRST*[®] in ALL of our Robotics Programs.

Gracious Professionalism[®] - To act with integrity and sensitivity. To value others, and respect individuals and the community. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. Knowledge, competition, and empathy are comfortably blended.

Coopertition[®] - To display unqualified kindness and respect in the face of fierce competition. Coopertition[®] involves learning from teammates and mentors while assisting and enabling others when you can.

In addition, Loveland Robotics will commit to:

Innovation & Creativity – To differentiate our robot designs using tools and resources available to everyone.

Teamwork – To reach consensus on our team objectives, to put the best interests of the team first and to fully participate in the activities of the team.

Excellence - To always look for opportunities to improve oneself and the team. To give our best effort and inspire others to do the same.

Connecting with the community - To share our experiences with others and promote the benefits of STEM programs throughout our community.

Having Fun - To enjoy what we do as individuals and as a team.



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How do I choose which program I want to participate in?

FTC - Teams 5040 & 10464	VEX - Teams 10565 A,B,C,D,E
10-15 members per team	4-5 members per team
Larger variety of build materials allows for artistic creativity, Robots have contained tape measures, drawer slides, and many 3-D printed parts.	Limited build materials (must use VEX equipment) requires ingenuity in the use of materials. Teams must find unique ways to use provided materials.
Teams meet mainly in the evenings but also meet some weekends and most school holidays.	Meets mainly after school but can be more flexible if the team has a registered parent volunteer
All events require parent transportation and some will require staying overnight. Teams typically travel out of state for qualifying tournaments.	All events require parent transportation. No overnight stays are required unless team advances to State and/or Worlds.
The FTC teams require a high level of parent support including working and/or donating to support multiple fundraising and outreach events as well as supporting robotics booster events.	The VEX teams require parent support including working and donating at our local VEX competition and supporting robotics booster events.
Requires a <u>digital</u> Engineering notebook.	Requires a <u>handwritten</u> Engineering notebook.
All team members are required to participate in outreach and fundraising, lots of opportunities to participate in 'business' type activities and interacting with the community.	Minimal outreach and fundraising, more focus on design, building and programming.
Larger teams, complex equipment, and business activities benefit from parent and mentor support.	Smaller teams are more independent and students benefit from autonomy in decision making.
HS FTC teams will be an advocate for <i>FIRST</i> and support other teams in the community including other FTC teams and Loveland FLL/ FLL Jr. teams.	HS VEX teams work mostly independently but may also work with VEX teams at LMS.
All team members must participate in a formal presentation at each competition.	Selected teams may be asked questions by the judges.
Access to scholarships available exclusively to <i>FIRST</i> Robotics participants	Access to scholarships available exclusively to VEX Robotics Competition participants

Would you like more information?

For a description of FTC (First Tech Challenge) which is run by <i>FIRST</i> (For the Inspiration and Recognition of Science and Technology), visit https://www.firstinspires.org/robotics/ftc/	For a description of VEX Robotics Competition which is run by REC (Robotics Education and Competition Foundation), visit https://www.vexrobotics.com/competition/ or http://www.roboticseducation.org
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Season

Robotics is a year long program. The season starts in May!

The new **VEX** game/challenge will be announced April 27. VEX teams will have a few meetings during this school year and then meet informally over the summer. Regular team meetings will begin in August. Tournaments are held December-February and local champions can qualify to advance to State (March) and Worlds (April). VEX Teams will compete in 2-3 local tournaments, parents are responsible for getting their student to the other competitions. Last year we hosted a competition and the team competed at Scarlet Oaks and Milford. We do plan to host a competition again and all parents are expected to work at the event. VEX teams will meet mostly after school 2-3 days per week, but some teams may elect to meet in the evenings IF they have a registered parent volunteer. There may be times that the team may decide it needs to meet more frequently, depending on project status.

FTC teams typically meet 2 days a week May-August and will participate in outreach activities and possibly some off-season competitions. Past summer activities include the Dayton Air Show, Ohio State Fair, STEM open houses at the library, and the Loveland 4th of July Celebration. The new **FTC** game/challenge will be announced in September. Once school starts, FTC teams generally meet Sunday, Monday, and Wednesday evenings from 7-9 pm. On competition weeks teams often meet every day leading up to competition to improve robot performance and practice presentations. FTC teams also meet most teacher work days and on holidays, including Thanksgiving and Christmas break. Tournaments are held December-February and teams that qualify can advance to State (February) and Worlds (April). FTC Teams will compete in 2-4 qualifying tournaments. Previous events have been in Cincinnati, Newark, Dayton, Cleveland, West Virginia, and Pennsylvania. Last year Team 5040 also qualified to compete at Worlds (Detroit). Parents are responsible for all transportation to competitions and some of these events will require overnight lodging.

Cost

All high school teams have a team fee of \$250 per student to help cover a portion of the annual recurring costs for registration, T-shirts, competition, and robot parts. Parents are responsible for transportation; also, FTC competitions will require overnight expenses. Depending on advancement of teams, additional funds or fundraising may be required. **\$50 will be due May 15. The remaining \$200 is due August 15.** Checks should be made out to **Loveland Robotics Boosters**. Please contact Ms. Stewart if financial limitations prohibit joining the team.

Summer Participation

Students are encouraged to participate in STEM camps and other learning activities over the summer. FTC Teams will participate in outreach events over the summer.

Team Leadership

Ms. Amy Stewart (stewaram@lovelandschools.org) is the coordinator for all teams. Loveland Robotics also has a fantastic devoted group of coaches, parents, and mentors that help with the teams. We are always looking for parent volunteers for both FTC and VEX, if you would be interested in helping, please notify Ms. Stewart.

Don't forget, there is a **MANDATORY parent meeting** on **Wednesday April 17 at 8 pm** in the Loveland High School cafeteria.



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Student/Parent Signature Form

Prerequisites

- Love to build and create new things.
- An interest in math, engineering, science, technology, programming, etc.
- Enjoy tackling challenging problems and can maintain a positive, persistent and creative mindset in the face of difficult problems.
- Willing and able to be part of a creative team focused on solving problems under tight constraints.

Expectations

- I understand that while Robotics team build sessions are fun, participation requires a high level of mental focus and energy. I will contribute at the highest level even after a long day at school.
- I understand I must work comfortably in a team environment by offering potential solutions to difficult problems, participating in constructive analysis of options, and supporting final team decisions even when my ideas are not adopted.
- I understand that there are many roles on the team and that I may not be “hands-on” with the robot every day, especially during my first year on the team.
- I understand that for the team to be successful, I must participate in “business” type activities such as marketing, advertising, scouting, fundraising, public relations (including website, video), etc.
- I understand that both Robotics programs require students to complete an Engineering Notebook and I will contribute by writing high-quality and detailed entries when it is my turn.
- I understand that attendance at all build sessions and events is mandatory, will require time management skills for homework and other activities, and parents are responsible for transportation.
- I understand that the Robotics team is a year-round rigorous activity and a big commitment for both the student and the parents.
- I understand that parents are required to contribute to the program by volunteering at events and supporting the robotics boosters.

STUDENT NAME (Print): _____

STUDENT SIGNATURE: _____

STUDENT EMAIL: _____

PARENT/GUARDIAN NAME: _____

PARENT/GUARDIAN SIGNATURE: _____

PARENT/GUARDIAN PHONE NUMBER: _____

PARENT/GUARDIAN EMAIL ADDRESS: _____

Is parent interested in mentoring? _____ In what capacity? _____



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Teacher Recommendation Form

Student: _____

This student is applying for the high school robotics team. Successful students are those who are creative critical thinkers, relish problem solving, are able to focus for extended periods of time, and are willing to work collaboratively on tough problems.

Please evaluate this student based on the following assessment by circling 10 indicating the student is very much like this down to 1 indicating the student is not at all like this.

Teachers may return this form directly to Ms. Stewart (LHS), Mrs. James (LMS), OR return to the student.

Very much like this

Not at all like this

A. **Critical thinker:** demonstrates analytical reasoning skills.

10 9 8 7 6 5 4 3 2 1

B. **Problem solver:** Interested in and intrigued by solving problems.

10 9 8 7 6 5 4 3 2 1

C. **Creative thinker:** thinks outside-the-box, sees things from multiple perspectives.

10 9 8 7 6 5 4 3 2 1

D. **Curious mind:** wants to learn, wants to know why.

10 9 8 7 6 5 4 3 2 1

E. **Self-controlled:** able to maintain focus and attention.

10 9 8 7 6 5 4 3 2 1

F. **Reliable:** completes assignments in a timely manner; doesn't need to be "baby-sat."

10 9 8 7 6 5 4 3 2 1

G. **Collaborative:** willing to contribute ideas, and willing to listen to and consider ideas from others.

10 9 8 7 6 5 4 3 2 1

Please write any additional thoughts that will give more insight into how this student thinks and performs:

Teacher name (printed): _____

Signed: _____ Date: _____



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