



Robotics

2020-2021 School Year

What is Robotics?

When students are engaged in hands-on STEM experiences, they build confidence, grow their knowledge and develop habits of learning. When adults coach these students, they encourage them to try, fail, and try again, while connecting STEM concepts to real-world examples. Robotics is an exciting after school, co-curricular program for our 1st-6th grade students. Depending on the type of team you are on, the primary focus is to build a functioning robot out of Lego pieces that can be computer programmed to maneuver across a playing field while performing multiple missions or you are given a specific theme and asked to build something according to that theme. Each year, a specific theme is generated by the F.I.R.S.T. Lego League.

*****Through Robotics, students learn programming language, basic physics, and engineering principles, sportsmanship, team cooperation, critical thinking, and problem-solving skills.**

Two Types of Teams

First Lego League

- For incoming 4th-6th Graders; Ages 9-14
- *FIRST*® *LEGO*® League is the most accessible, guided, global robotics competition, helping students and teachers to build a better future together. The program is built around theme-based Challenges to engage children ages 9 to 16* in research, problem solving, coding, and engineering.
- The foundation of the program is the *FIRST*® Core Values, which emphasize teamwork, discovery, and innovation. Students emerge more confident, excited, and equipped with the skills they need in a changing workforce.



First Lego League Jr.

- For incoming 1st-4th Graders; Ages 6-10
- It's never too early to discover STEM. *FIRST* LEGO League Jr. is designed to introduce STEM concepts to kids ages 6 to 10 while exciting them through a brand they know and love – LEGO®.
- Guided by adult coaches and [FIRST® Core Values](#), students build models using LEGOS and create posters to present what they learned. The program focuses on building interest in science, technology, engineering, and math (STEM) through a real-world challenge – to be solved by research, critical thinking, and imagination.



General Information

Teams – One or two teams depending on parent coaches

- One First Lego League Team (incoming 4th-6th graders, ages 10-12)
- One First Lego League Jr Team (incoming 1st-4th graders, ages 9-14)

Team positions – up to six-member team (FLL, Jr.), up to ten-member team (FLL), and two parent coaches per team

Team selection – If you are interested you must complete the application form and email or scan to Ms. Fagundes by Friday May 15th. Team members will then be contacted to set an interview date/time. Other criteria for selection will be based on input from current classroom teachers (based on ability to focus and stay on task and maintain appropriate behavior).

Time Commitment

The Robotics Season runs August-April, with the heavy season being August-December.

Whether you are a coach or a team member plan to meet at least one night per week (about an hour and a half) for at least 12 weeks leading up to expo, competition, or event date. Meetings may increase to two nights per week as events get closer.

- As a coach or adult volunteer, you should be meeting with your team at least once per week during the discovery and creation season (12 sessions).
- As a team member, the same applies. Be prepared to meet once per week for about 12 weeks. Like any sport or other after-school activity, the more time you invest in helping your team will add to your team's success.

What Special Skills do I Need?

The really cool thing about *FIRST* LEGO League Jr. is...all skill levels are welcomed and needed, technical or non-technical. Teams need all kinds of skills and creativity to succeed, so what are you good at? Chances are we have a job for you. And we'll probably teach you a few new ones while you're with us.

Student team members are encouraged to bring any skills or interests they already have, but most importantly a desire to learn and solve problems as a team. *FIRST* LEGO League Jr. *welcomes every student, with or without special skills.* Like our coaches say, "This is the only sport where if you show up, you can play."

Interested in Being a Coach?

*Coaches are an essential part of robotics as the number of teams and the program itself is dependent on parent coaches. Coaches lead each team; staff serves as advisor to the coaches and program.

The most successful team coaches are people with at least an interest in science and technology, and in helping kids discover and learn. But we can't emphasize enough that no special technical skills are required. Anyone who wants to be a coach will receive all the training and help he or she needs.

As a coach you will be responsible for:

- Getting fingerprinted and signing all paperwork to be a coach
- Communicating with students/families weekly
- Setting up and carrying out/coaching weekly sessions
- Organizing a suitable meeting place, either public or private, that works for you and your team and that has internet access
- Registering team and signing team up for expos and competitions through FIRST Lego League

COVID-19 Disclaimer

***Robotics requires team meetings, collaboration, and hands-on experiences with building our projects. The future status of COVID-19 may impact our ability to continue our program if students are unable to meet in person. We are hoping for the best and will move forward in recruiting and building teams in anticipation of our upcoming season.

Still Have Questions?

Send your questions to Ms. Fagundes directly at cathleenfagundes@cusd.com then attend our LIVE Q&A session via ZOOM for answers on

Thursday April 30th @ 6:00pm

<https://cusd.zoom.us/j/92094851773?pwd=KORTN2ZINnRjS2FkMHdYWU5ybklKdz09>

Meeting ID: 920 9485 1773

Password: 0gzj3X

***All questions and answers will also be typed up and available after the zoom meeting for families to reference.