

MapSO Makers - Robotics & STEM Community - www.mapsomakers.com

MapSO Makers Mission:

To help kids develop the mindset and skills necessary to enter the workforce and be active members of their community. We achieve this through the lens of LEGO®, robotics and other hands-on technology, focusing on building essential skills such as communication, collaboration, creativity, critical thinking and problem-solving.

Vision:

We are committed to having as many children as possible in our community participate, with a special focus on underrepresented communities in the STEM field, especially girls. We look for ways to collaborate with MapSO/SOMA community and schools to expand these programs.

Who are the MapSO Makers?

Local parent Brad Schenker and community member (and SOMS Choir teacher) Jake Ezzo founded the original robotics team in 2019, made up of nine 7th grade girls. The program has expanded to parent-led teams and summer programs. Teams are led by parents or other volunteers in the community. Brad and Jake help with program administration and training new coaches.

What is FIRST® LEGO® League? [FIRST LEGO League Overview](#) [I.AM.FIRST \(I.AM.Angel Foundation\)](#)

The worldwide FIRST® LEGO® League (FLL) introduces science, technology, engineering, and math (STEM) to children ages 4-14 through fun, exciting hands-on learning. Participants gain real-world problem-solving experience through a guided, global robotics program, helping today's students and teachers build a better future together. The three divisions inspire youth to experiment and grow their critical thinking, coding, and design skills through hands-on STEM learning and robotics.

How does MapSO Maker's FLL program work?

FLL primarily runs in the fall of each year with competition happening in November and December (younger age programs do not have competitions). MapSO Makers supports teams by providing administrative support, advising, and mentoring teams, especially their coaches. Teams primarily meet at homes, though we have had use of the CHS Robotics room in previous seasons.

How Do I Start a Local Team?

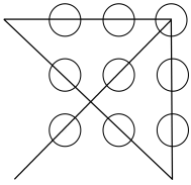
ANY parent can lead a team. Teams need two adult coaches, and we encourage all the parents to help. Season materials are included with registration, and robot kits can be purchased or leased. The coaches facilitate the team's progress, helping with strategy, mentorship, setting goals and keeping the team focused.

Time Commitment

Explore teams can meet for 60 minutes once a week during the season, plus any festival attendance. Challenge teams tend to meet 1-2 times a week and typically meet for two hours. We encourage teams to provide flexibility so kids can enjoy other activities, sports, and family. Space is needed to set up the 8'x4' competition mat plus the LEGO missions and robots (they can be stored after each meeting).

Support & Team Set Up

There are plenty of materials available online and via communities of FLL teams worldwide. MapSO Makers work with first year teams to set reasonable goals, with a focus on fun and building the skills needed for further success in year two and beyond. Our teams have won numerous awards and invites to the regional championships. We want to offer your kids that same experience!




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**FIRST
LEGO
LEAGUE**

CHALLENGE

AGES
9-16



Friendly competition is at the heart of Challenge, as teams of students ages 9-16* engage in research, problem-solving, coding, and engineering - building and programming a LEGO robot that navigates the missions of a robot game.

How to Start: Each Challenge season has three parts: the Robot Game, the Innovation Project, and the *FIRST* Core Values.

Two to 10 team members, ages 9 to 14 (4th-8th grade). A coach is allowed to coach multiple teams. Each team must have at least 2 adult coaches.

Register: www.firstinspires.org

Estimated Yearly Costs	Cost Range
Registration & Challenge Set:	\$400
Local FLL Partner Costs:	\$85-\$250
MapSO Makers Membership: (includes team support & t-shirt)	\$65/team member
LEGO SPIKE Prime (per kit two per team recommend; two options)	1x Purchase: ~\$600 Yearly Lease: \$125
Portable Practice Table (optional) (no cost options available)	\$300

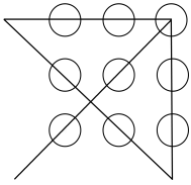
Registration includes

- Official *FIRST* LEGO League Challenge team number
- Access to printed and digital season materials, including Team Meeting guide, Robot Game Rulebook, static and interactive version of the Engineering Notebook, and a library of other tools and resources you can use throughout the year.
- Real-world, real-time support and resource sharing
- Eligibility to participate in the *FIRST* LEGO League Global Innovation Awards
- Ability to register and compete in *FIRST* LEGO League Challenge events

Team Registration fee does not include shipping and handling, the Challenge Set, registration to *FIRST* LEGO League Challenge events, nor guarantees that remote or in-person events are available in your area. Additional costs for event participation, travel, food, team shirts and other optional items will vary.

New ***FIRST* LEGO League Challenge** teams can expect to pay \$1000-\$1200 for team registration, the Challenge Set, and a reusable robot kit of parts. Veteran teams will pay less since the robot set can be used year after year. Team registration and the Challenge Set must be purchased every season. (MapSO Makers recommends teams have TWO robot kits.)

FIRST Program Delivery Partners run local *FIRST* LEGO League Challenge events. Partners may charge additional fees to participate in their event



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FIRST LEGO LEAGUE EXPLORE | AGES 6-10

In Explore, teams of students ages 6-10 focus on the fundamentals of engineering as they explore real-world problems, learn to design, and code, and create unique solutions made with LEGO bricks and powered by LEGO® Education WeDo 2.0.

How to Start: Each August, *FIRST* LEGO League Explore releases a new Challenge for teams that focuses on a scientific topic. Teams are sent on a journey of discovery to learn all they can about the topic, then present their findings in the form of a team poster and a LEGO model that moves.

You may recruit 2 to 6 team members ages 6 to 10. A coach is allowed to coach multiple teams. Each team must have at least 2 adult coaches.

Register: www.firstinspires.org

Estimated Yearly Costs	Cost Range
Registration & Explore Set:	\$125
Local FLL Partner Costs:	\$50-\$200
MapSO Makers Membership: (includes team support & t-shirt)	\$65/team member
LEGO Spike Essential (robot kit)	\$350

Registration includes

- Official *FIRST* LEGO League Explore team number
- Explore Set, used by the team to complete their challenge for the season
- Access to printed and digital season materials, including Team Meeting guide, static and interactive version of the Engineering Notebook, and a library of other tools and resources you can use throughout the year.
- Real-world, real-time support and resource sharing
- Ability to register for remote and in-person *FIRST* LEGO League Explore Festival Events
- Access to the *FIRST* storefront to purchase discounted LEGO Robot Sets

Team Registration fee does not include shipping and handling, registration to *FIRST* LEGO League Explore Festival events, nor guarantees that Festival events are available in your area. Additional costs for event participation, travel, food, team shirts and other optional items will vary.

New ***FIRST* LEGO League Explore** teams can expect to pay approximately \$450-\$600 for team registration and a reusable LEGO Education SPIKETM Essential set. Veteran teams will pay less since the LEGO Education SPIKE Essential can be used year after year. Team registration must be purchased every season.

FIRST Program Delivery Partners run local *FIRST* LEGO League Explore Festival events. Partners may charge an additional fee to participate in their Festival events, and those fees are set and collected by the Partner.