A Quick Look

Teamwork + Robotics + Problem Solving

Shakopee Community Education
What is FLL?

FIRST LEGO League

FIRST = For Inspiration and Recognition of Science & Technology

FIRST LEGO League is an alliance between FIRST and the LEGO Group.
FLL Mission

To inspire young people to be science and technology leaders and innovators by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

In short, FLL engages students in hands-on STEM experiences to build confidence, grow in their knowledge, and develop positive learning habits.
FLL Vision

“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
How do they accomplish this?

FIRST® LEGO® League (FLL) encourages students to come together to innovate and solve problems by researching a challenge and preparing a presentation that explains a solution to a real-world problem.

Students meet with their team weekly to work on their solution. Teams will design, build, program and test an autonomous robot using a LEGO® Ev3 robot and Mindstorms software.

Each challenge contains 3 parts:

The Robot Game

The Innovation Project

The Core Values
1: The Robot Game

Teams design, build, test and program an autonomous EV3 robot to score points on a thematic playing field.

Points are scored by moving the robot around the field and by moving objects on the field (pushing, lifting, tossing or more) completing specific missions to earn points.

There are three 2.5 minute rounds.

“Teams are evaluated on mechanical design, programming, and innovation & strategy.”
The playing field

Last year’s playing field

Theme: “Into Orbit”
The team will choose and solve a real-world problem in the Innovation Project.

“Teams conduct research to solve a real-world problem, develop an innovative solution, share their findings with community stakeholders, and present their work at the competition.”

“They will be evaluated in research, innovative solution and presentation.”
3: The Core Values

“The FIRST Core Values are the cornerstones of the program. Teams are evaluated on HOW they work together, as well as inspiration, teamwork and Gracious Professionalism®.”

This is accomplished in the following 6 areas:

- **Discovery:** We explore new skills and ideas.
- **Innovation:** We use creativity and persistence to solve problems.
- **Impact:** We apply what we learn to improve our world.
- **Inclusion:** We respect each other and embrace our differences.
- **Teamwork:** We are stronger when we work together.
- **Fun:** We enjoy and celebrate what we do!
3: The Core Values cont.

What is Gracious Professionalism®?

“Gracious Professionalism is strong competition but a mutual respect and appreciation of your opponents.”

It allows for different opinions amongst team members to be evaluated and tested to figure out which idea might work better for the challenge.

It teaches students how to work through real-world situations by working together and with others.
What does this look like?

We currently have 2 teams for your student to join.

- Team Johnson
- Team Graff

Each team has 2 adult coaches.

Once teams have been formed, the adult coaches will work with families to set a meeting time and place (usually once or twice a week).

Teams will work on their solutions for the regional tournament between August and November.
What is this year’s challenge?

Robot Game
Innovation Project
Core Values
CITY SHAPER Challenge

What if you could build a better world?
Where would you begin?

More than ever, we must come together to innovate and solve problems. In FIRST®, you are part of a thriving community brimming with inspiration, creativity, and hope for a stronger, more sustainable future—one that’s built better together. You have the power to help the cities, towns, and places you call home reach new heights. With the support of the FIRST community, this is your opportunity to lead our future forward—and up.

FIRST LEGO League is challenging YOU to think like scientists and engineers. During the CITY SHAPER season, YOU can decide how to build a better world starting in your own backyard.
Details

FLL Season-August thru December

$130 fee includes:

- National registration fee
- Tabletop playing field supplies
- Team t-shirt
- Adult coach training
Details

What the $130 fee does NOT include:

- MN Sectional Tournament - optional tournament for teams that have advanced - $150/team

- MN State Championship - optional tournament for teams that have advanced - $175/team

- Optional team supplies for items such as a team poster, costumes, etc.

- The LEGO Ev3 robot – seeking company sponsors

- A laptop
Tournament Time Lines

Regional Tournament Choices (teams attend one):

November and December

11/16  Dakota Hills Middle School, Eagan
11/23  Lakeville South High School, Lakeville
Prior Lake High School, Prior Lake
12/7 & 12/8 Holy Family Catholic High School, Victoria

The State Tournament is on Saturday, February 23 for teams that advance.
I’m interested, so now what?

Step 1: Form a team including two adult coaches.

Step 2: Contact Autumn to register your adult coaches.

Step 3: Go to www.shakopee.k12.mn.us and register for FLL under the Community Education tab. You will have to register under your team name.

Step 4: Your adult coaches will work with you to chose a time and place to meet each week.
Questions?