

「MASTERPIECESM」

Welcome to FLL Info Night!



LIGERBOTS • FIRST[®] Robotics Team 2877



So, Who Are the LigerBots?

The LigerBots are a Newton North and Newton South combined robotics team.

We compete in the FIRST Robotics Competition



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FIRST

(For Inspiration and Recognition of Science and Technology)

FLL

(FIRST Lego League)

FTC

(FIRST Tech Challenge)

FRC

(FIRST Robotics Competition)

FLL Explore (Pre-K - 1)	FLL Discover (Grades 2 - 4)	FLL Challenge (Grades 4-8)
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FIRST LEGO League “Discover”

Grades Pre-K – 1



Learn with hands-on activities, using LEGO® DUPLO® bricks

For children ages 4 – 6, this playful introductory STEM program ignites their natural curiosity and builds their habits of learning with hands-on activities in the classroom and at home using LEGO® DUPLO® bricks.

Benefits

- Learn STEM fundamentals
- Hands-on learning



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FIRST LEGO® League “Explore”

Grades 2 – 4



Learn the fundamentals of engineering using LEGO® bricks, in teams of 2 – 6

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.

Benefits

- Understand concepts & building STEM skills
- Develop habits of learning



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FIRST LEGO® League “Challenge”

Grades 4 – 8



Teams of 2 – 10 build and program a LEGO® robot and prepare a presentation.

Friendly competition is at the heart of Challenge, as teams of students ages 9+ engage in research, problem solving, coding, and engineering — building and programming a LEGO® Education SPIKE Prime® or LEGO® MINDSTORMS® robot that navigates the missions of a robot game. As part of Challenge, teams also do a research project to identify and solve a real-world problem related to the game theme.

Benefits

- Understand real-world uses of STEM
- Apply critical thinking skills



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General FLL Challenge Team Logistics

- FLL teams have
 - 2 adult coaches
 - 2-10 students in grades PreK - 8
- Teams can be based in schools, organizations, or homes
- A student can only be on one team, but coaches and mentors can work with multiple teams
- Teams compete in both official and unofficial events



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Costs

Costs are typically divided among team members

One Time Costs. Total: \$650

- LEGO Education SPIKE prime robot set: \$500 or you can use a EV3 robot if you already have one
- Robot table: one time cost to build 4' x 8' table - around \$150

Annual Recurring Costs. Total: ~\$450

- Registration: \$250
- Challenge set: \$100
- Event fee for each event: \$75 to \$125

Total first year cost: ~\$1100



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FLL Challenge Season + Game

Last year's game video



[Game Video](#)

<https://tinyurl.com/fll-superpowered>



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FLL Challenge Season + Game

This year's game video



[Game Video](#)

<https://tinyurl.com/fll-masterpiece>

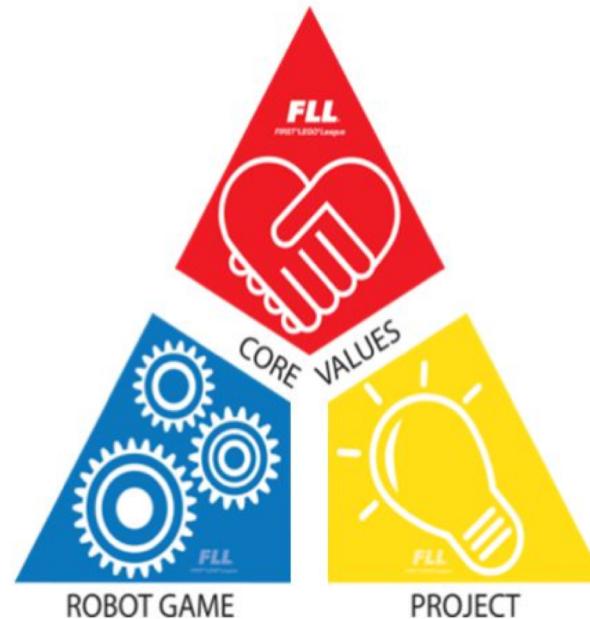


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Main Components of FLL Challenge

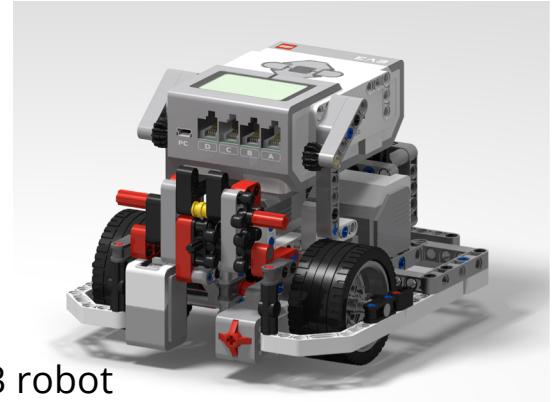


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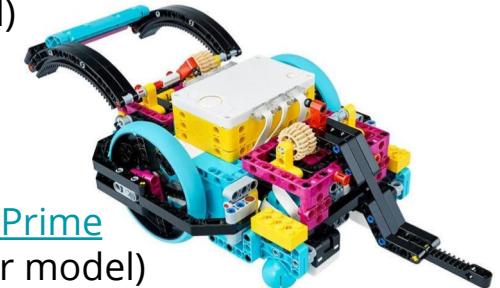


Robot Game

This is what the game board looks like (4'x8' Table)



EV3 robot
(older
model)



SPIKE Prime
(newer model)
<https://tinyurl.com/fll-spike-prime>



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FIRST
LEGO
LEAGUE

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FIRST® Core Values

- We are a team.
- We do the work to find solutions with guidance from our coaches and mentors.
- We know our coaches and mentors don't have all the answers; we learn together.
- We honor the spirit of friendly competition.
- What we discover is more important than what we win.
- We share our experiences with others.
- We display Gracious Professionalism® and Coopertition® in everything we do.
- We have FUN!



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What is the Project?

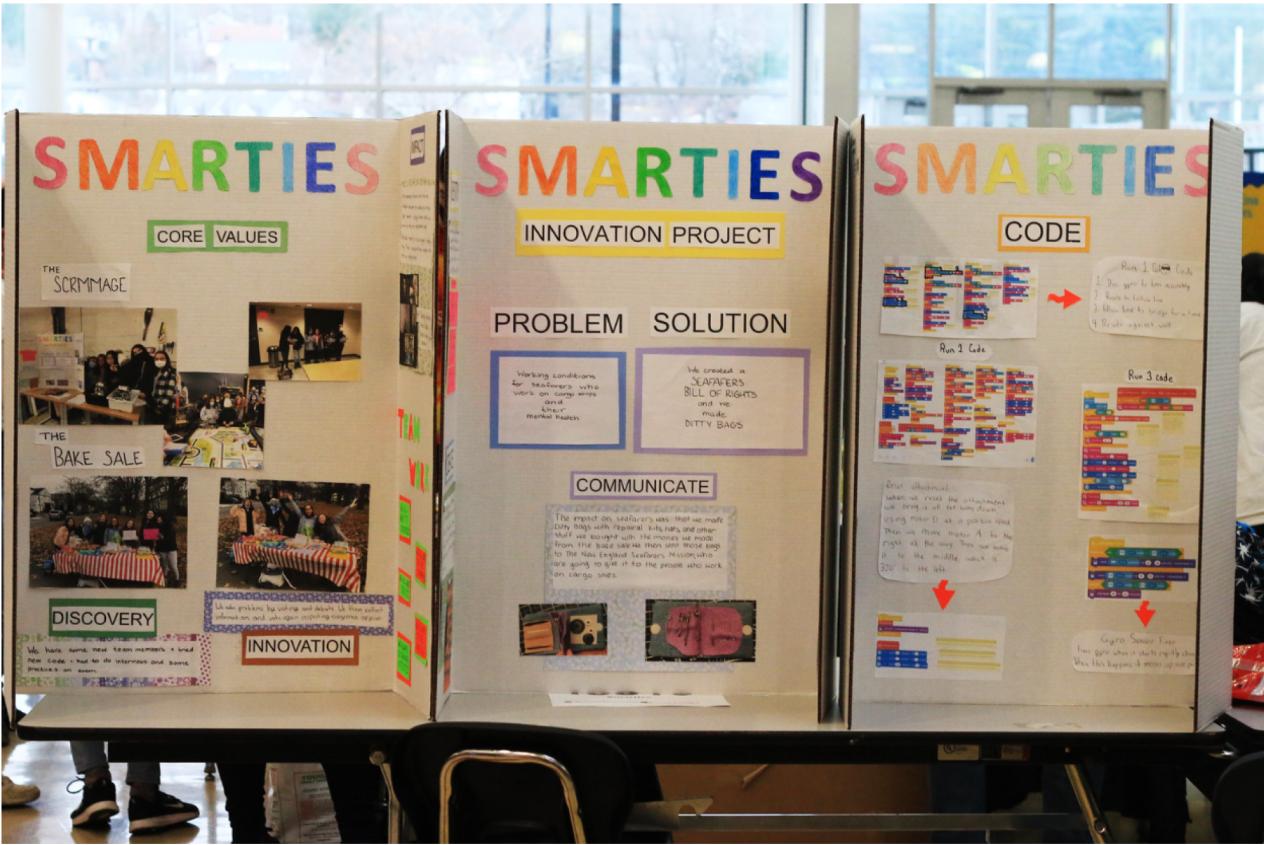
For FLL Challenge only

- Related to the theme of the competition
- Research real-world problems
- Develop an innovative solution
- Come up with a creative presentation



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Season Schedule

August

- A new game is released
- Lego parts and a field are delivered to each team

September – November

- Teams have 3 months to design and build a robot
- Teams also create a project to help their community
- Parent/teacher coaches provide guidance

November – December

- Teams compete in local competitions

April

- Worldwide competitions are held in Houston!



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Parent Responsibilities

- Communicate scheduling conflicts
- Be supportive
- Drop off and pick up on time
- Be involved and motivate your child
- Get involved with the team!
 - *Treasurer*
 - *Graphics*
 - *Administration (T-shirts, fundraising, snacks, videos, pit management, food, carpool, etc.)*
- Help with fundraising or obtaining sponsorships



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Coach Responsibilities

These are coach responsibilities

- Encourage and structure the process, but let the team develop the content
- Ask questions to encourage the team's thinking and problem solving
- Read and understand the rules
- Keep parents informed
- Balance fun and competition

These are NOT coach responsibilities

- Build and program the robot
- Do research and design project solutions
- You are NOT a football coach
 - *Don't call the plays*
 - *Winning isn't everything*



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Student Responsibilities

- Be positive toward everyone
- Be supportive of everyone
- Contribute to the team
- Respect coaches and others
- Do your share of the work - and more
- Know your schedule and manage your time
- Make mistakes and share all ideas
- HAVE FUN



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So You Want to Start a Team. . . .

- One great way to start a team: friends!
- Talk to other parents in your area!
- Start the registration process on the FIRST [website](#) (firstinspires.org) Registration closes when spots are full.
- Use this handy [guidebook](#) to help.
(<https://tinyurl.com/fll-guidebook>)
- Teams need to have space for a table
- Reach out to the LigerBots! - fll@ligerbots.org



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Overwhelming? Don't Worry!

Running an FLL team can be confusing. You CAN be a coach! There are resources.

- LigerBots may run coaching workshops and provide teen assistants to teams.
- FLL coaching manual
- Google is your friend. Every problem has been solved before!
- No programming or mechanical experience? *Reach out to us for specific help! fll@ligerbots.org*



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Our Experiences with FLL



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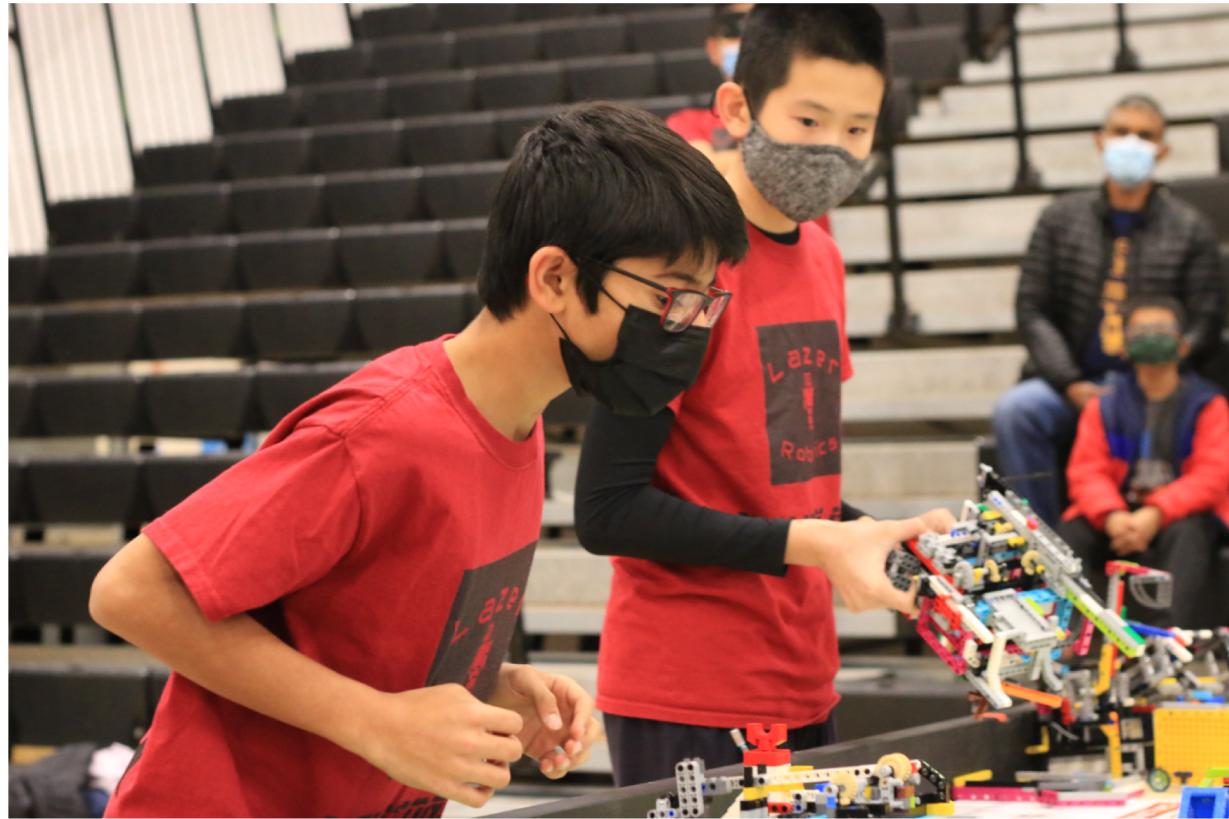
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Thank You for Attending!

Contact Us!

fll@ligerbots.org



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