Franklin FIRST Robotics











4K-5K

EXPLORE

Grades 1-3

Grades 4-8

Grades 9-12

2025-26 Season

https://FranklinFIRSTRobotics.org



Link: FLL Video Montage



Informational Meeting Agenda

7:00-7:10 Welcome

What is



7:10-7:45

Adults

• What is FLL?



LEGO LEAGUE



4K-5K

Grades 1-3 Grades 4-8

- Season Schedule / Overview of a season
 - FLL Discover
 - FLL Explore
 - FLL Challenge
- How do we get started?
- Student interest & signup
- Coach/Mentor/Helper interest & signup

Kids

- All ages Drive Saber Robotics' FRC Robot
- Grades K-3 Lego time!!!
- Grades 4-8
 - Ice breaker team building exercise
 - Lego time!!!
 - Closing team building exercise

7:45-

8:00

• What's after FLL?

FRC Team 2506 – Saber Robotics Discussion



8:00-8:15

Open networking & Q&A time



FIRST 2025-26 Teasers

2025-2026 FIRST AGE Season Reveal



2025-2026 FIRST LEGO League UNEARTHED Season Reveal







"For Inspiration and Recognition of Science & Technology"

We Are the World's Leading Youth-Serving Nonprofit Advancing STEM Education

FIRST® inspires 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.





4K-5K









Grades 9-12

Grades

Grades 1-3 *Ages flexible*

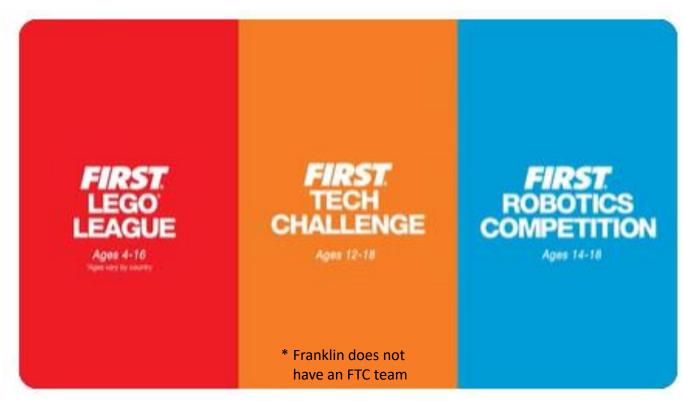
Grades 4-8

Grades 7-12*

* Franklin does not have an FTC team

Spiler Robotics





Link: FIRST Introduction Video

We express the FIRST philosophies of Gracious Professionalism® and Coopertition® through FIRST Core Values:

- 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!

Franklin *FIRST.* Robotics Break out sessions

- Adults
- Kids
 - 4K-5K & 1st-3rd grade in the Fall
 - 4th-8th grade in the Fall
 - High school in the Fall











4K-5K

Grades 1-3

Grades 4-8

Grades 9-12

What is FIRST Lego League?



FIRST LEGO League introduces science, technology, engineering and math (STEM) to children ages 4-16* through fun, exciting hands-on learning. FIRST LEGO League participants gain real-world problem-solving experiences through a guided, global robotics program, helping today's students and teachers build a better future together. In FIRST LEGO League, students engage in hands-on STEM experiences, building confidence, growing their knowledge and developing habits of learning. FIRST LEGO League's three divisions inspire youth to experiment and grow their critical thinking, coding and design skills through hands-on STEM learning and robotics.



What is FIRST Lego League?



See your kids grow and shine though FIRST® LEGO® League.



• Starting with Discover, children are introduced to the fundamentals of STEM while working together to solve fun challenges and building models using LEGO® bricks.



 As participants progress into Explore, children will take their background knowledge of STEM and put it into practice as they work in teams to design and build robots using SPIKETM Essential.



 Once they are ready to move into a competitive setting, they join Challenge and apply their STEM skills combined with critical thinking to work with a team, build a robot and compete in an exciting, mission-based Robot Game.

From Discover, to Explore, and then to Challenge, students will understand the basics of STEM and apply their skills in an exciting competition while gaining productive learning habits, confidence, and teamwork skills along the way.



What is FIRST Lego League?





<u>Link: FLL Introduction Video</u>



FIRST[®] LEGO[®] League Discover is a playful introductory STEM program for children ages 4-6 that ignites their natural curiosity and builds their habits of learning with hands-on activities in the classroom and parent engagement activities to extend learning at home using LEGO[®] DUPLO[®] bricks.

CHILDREN:

 Are introduced to the fundamentals of STEM while working together to solve fun challenges and build models using LEGO bricks

"We want to change the culture by celebrating the mind."

DEAN KAMEN, FOUNDER, FIRST

WHAT IT OFFERS:

- · New real-world theme each year
- Understanding the basics of STEM;
 Building habits of learning
- · Culture of sharing, learning, and fun
- Engagement of kids in meaningful, hands-on experimentation
- Alignment with national educational standards
- In-school events

HOW IT WORKS:

- Class Pack offering designed for 8 children, ages 4-6
- Classroom or structured after-school program
- Adult coaches and mentors needed to guide the team
- 10 sessions
- LEGO® Education STEAM Park (reusable) and annual Discover Set



4K-5K

Engineering

Design Process

GRADES





Time Commitment:

Teams meet for 10 sessions for 1 hour meetings (generally, 1/week)

Franklin FLL Informational Meeting – May, 2025



In *FIRST*® LEGO® League 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 SPIKE™ Essential or WeDo 2.0.

CHILDREN:

- Build and program a model that moves using LEGO Education SPIKE™ Essential or WeDo 2.0
- Document their work in individual Engineering Notebooks and present their team research journey in a collaborative team poster
- · Learn teamwork skills
- Build self-confidence, knowledge, and life skills

"My favorite part is working together as a team and building together"

- ANGELINA, TEAM MEMBER

WHAT IT OFFERS:

- · New real-world theme each year
- Builds STEM skills and develops habits of learning
- · Culture of sharing, learning, and fun
- Engagement of kids in meaningful, hands-on experimentation
- · Presentation skills development
- Community-hosted events and official FIRST LEGO League Explore Festivals

HOW IT WORKS:

- Teams up to six children, ages 6-10
- Adult coaches and mentors needed to guide the team
- Parents, grandparents, teachers, community volunteers
- Meeting place (school, after-school, homeschool, or community space)
- 12 sessions
- LEGO Education SPIKE™ Essential (reusable) or WeDo 2.0 and annual Inspire Set



GRADES

1-3







Time Commitment:

Teams meet for 12 sessions for 1-2 hour meetings (generally, 1/week)



LEAGUE

CHALLENGE

4-8

FLL Challenge

Friendly competition is at the heart of FIRST® LEGO® League 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. As part of Challenge, teams also design an innovative solution to a real-world problem relevant to the theme.

CHILDREN:

- Understand real-world uses of STEM
- Apply critical thinking skills
- · Build habits of learning

"I want to build things nobody else has even thought of yet."

- CHARLES PETERSON, TEAM **MEMBER (10 YEARS OLD)**

WHAT IT OFFERS:

- · Application of science and math concepts
- · Hands-on problem solving
- Programming experience
- · Application of the Engineering Design Process
- · New real-world theme each year
- Sports-like tournaments with judges and awards

GET STARTED:

- Teams of up to 10 children, ages 9 to 16*
- · Adult coaches and mentors
- Meeting place (school, after-school, homeschool, or community space)
- · Parents, teachers, community volunteers to help
- 12 sessions
- LEGO Education SPIKE™ PRIME or LEGO MINDSTORMS® Robot Set (reusable) and annual Challenge Set



PROVEN, VERIFIABLE IMPACT!**

95% Time Management Skills Increase



99% Teamwork Skills Increase



Time Commitment:

87% Express Interest in

Teams meet 2 days/week for 2-hour practices (mid-August-December) If team advances to Sectionals, practices continue through January. If team advances to State, practices continue through February.



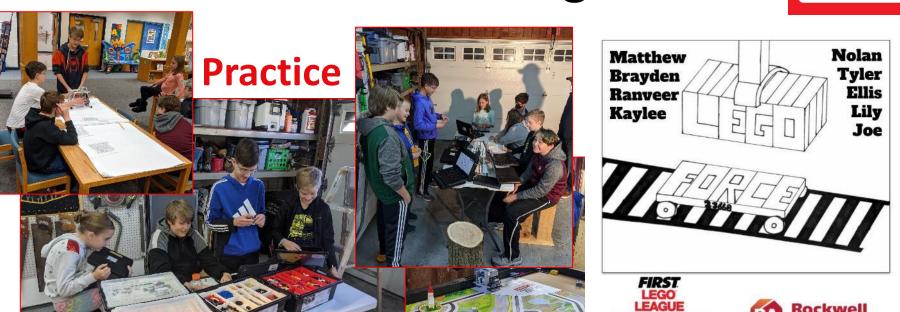
Franklin FLL Informational Meeting – May, 2025

Season Overview – Lego Force

CHALLENGE

FIRST

LEGO LEAGUE



Compete







2021-2022

CARGO CONNECTSM

CARGO

Learn how cargo is transported, sorted, and delivered to destinations

Franklin FLL Informational Meeting – May, 2025

CHALLENGE

2025/2026 FIRST LEGO League Season Calendar

Mid-May	Registration Opens
August 5 th	Global Season Launch
Mid-August – March	Overall Season
November – April November-January January-February February April	Tournament/Festival Season Regional Tournaments Sectional Tournaments State Tournament World Championship ("Worlds")

^{*} Team registrations close on a regional basis. Teams will be accepted until all slots are filled.



MAY

Registration for the season opens



AUGUST

Season Launch



NOVEMBER-MARCH

Local and regional competitive events



APRIL

FIRST° Championship



FLL – Budgets

2025-2026 FIRST team registration fees

- FIRST LEGO League Discover (link)
 \$238 = \$200 + \$38 S&H
- FIRST LEGO League Explore (link) \$160 = \$140 + \$20 S&H
- FIRST LEGO League Challenge (link) \$289 = \$275 + \$14 S&H

2025-2026 Product Pricing

 FIRST LEGO League Challenge season competition set: \$95 + \$15 S&H

2025-2026 Lego Kit Pricing (2025 will be 2%-4% higher)

- LEGO® Education SPIKE[™] Prime (includes both base and expansion sets, reusable): \$556 + \$20 S&H
- LEGO® Education SPIKE™ Essential (reusable): \$330+\$15 S&H
- LEGO® Education STEAM Park (reusable): \$220 + \$15 S&H

2024-2025 WI Tournament Costs

- FLL Discover & Explore Expo Franklin High School no cost
- FLL Challenge \$170 / year (plus \$20 each if team advances to Sectional, and State tournament)

https://www.badgerbots.org/wi-first-lego-league-team-info

Other Team Expenses

- Team uniform (T-Shirts) Approximate cost \$10/shirt
- Consumables Poster boards, engineering notebooks, markers, tape, color print outs



FIRST LEGO LEAGUE EXPLORE FIRST.
LEGO
LEAGUE
CHALLENGE

Approximate FLL Explore Season Costs:

- + \$160 Registration
- + ~\$80 Team Shirts
- + \$50 Consumables
- = \$290 total team cost / 8 kids = \$36 / child (more per kid for smaller teams)

Approximate FLL Challenge Season Costs:

- + \$289 Registration
- + \$110 Field Set
- + \$170-\$210 WI Tournament
- + ~\$80 Team Shirts
- + \$50 Consumables
- = \$700-\$750 total team cost / 8 kids = \$88-\$94 / child (more per kid for smaller teams)

Approximate FLL Discover Season Costs:

- + \$233 Registration cost / 8 kids = \$30 / kid (more per kid for smaller teams)
- Some employers will provide grants/sponsorships for FLL Teams. For example, Rockwell Automation will cover the first two charges (plus robot kit for rookie teams) for a team where an employee is a mentor.



How do we get started?

FIRST.
LEGO
LEAGUE

- Tonight (or online in the next two weeks) at https://FranklinFIRSTRobotics.org
 - Volunteer to Mentor a team
 - Sign your kids up for a team
- Franklin FIRST Robotics has several FLL Discover STEAM Park kits, FLL Explore SPIKE Essential kits & FLL Challenge EV2 Robot kits available for teams to use at no cost.
 - If your team is a new team, and has a mentor who works at Rockwell Automation, you will be eligible for a new robot kit at no cost to the team.
- Beginning mid-May, start at https://firstinspires.org
 - Mentors
 - Create an account
 - Register your team online
 - Invite parents to register their kids for your team
 - Order your 2024-2025 Season Field Kit
 - Parents
 - Register your kids, and accept invitation to join a team
- Schedule your Fall & Winter practices
 - One, 1-hour practice / week is recommended for FLL Discover teams (~10 weeks)
 - One, 1-2-hour practice / week is recommended for FLL Explore teams (~12 weeks)
 - Two, 2-hour practices / week are recommended for FLL Challenge teams (August-December)
- In the Fall (Sept or October), register for WI Tournaments at https://www.badgerbots.org/wi-first-lego-league-team-info



What's Next?

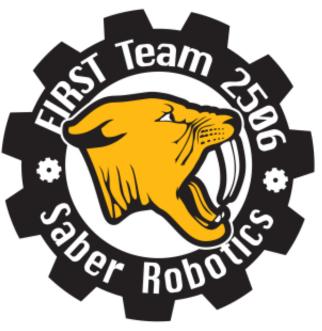
- FRC explained by kids from Franklin Saber Robotics
 - Sub-teams
 - Competitions
 - Fundraising
 - Community Outreach

• ...





Grades 9-12



Franklin *FIRST* Robotics











EXPLORE

CHALLENGE

Grades 9-12



Grades 1-3

Grades 4-8

Networking & Q&A

https://FranklinFIRSTRobotics.org





