What is FIRST® LEGO® League?

FIRST® LEGO® League (FLL) is a STEM competition for young people aged 9–16. It's a fun and exciting challenge where student teams:

- design and build a LEGO® robot.
- program their LEGO® robot to complete a series of missions.
- research the BIOGLOW season theme to identify an environmental problem or challenge.
- create an Innovation Project that proposes a solution to the problem they have identified.
- attend an FLL tournament day where teams compete in a series of exciting Robot Games, and present their Innovation Project and Robot Design to teams of judges.

Student teams create their robot and Innovation Project in school or as part of a club activity. Teams will then attend a regional *FIRST*® LEGO® League tournament, where they get to really show-off their ideas, teamwork and LEGO innovation. Teams are assessed under four categories (below) by judges and robot game referees. Each category is it's own individual award, and 25% of the Champion's Award. All awards are made out of LEGO! **Good luck teams!**

ROBOT GAME

Teams build and program their robot to complete LEGO missions, each mission completed will earn the team points. Teams get 3 attempts at the robot game. (25%)

ROBOT DESIGN

Teams explain the process of designing and programming their LEGO® robot to judges; demonstrating their engineering and problem-solving skills. (25%)

INNOVATION PROJECT

Teams research the *FIRST*® LEGO® League season theme and explore ideas relating to that theme. Teams identify a problem, come up with a potential solution, and give a presentation to communicate their solution. (25%)

CORE VALUES

Teams must demonstrate the *FIRST*® LEGO® League Core Values: innovation, teamwork, discovery, fun, impact and inclusion. Being respectful to others and having a great time are central to what makes FLL so special. (25%)

Getting Started: Core Values

DISCOVERY

We explore new skills and ideas.

IMPACT

We apply what we learn to improve our world.

FUN

We enjoy and celebrate what we do!

INCLUSION

We respect each other and embrace our differences.

INNOVATION

We use creativity and persistence to solve problems.

TEAMWORK

We are stronger when we work together.

Core Values is how you work together, share ideas and interact with those around you. You may also hear the terms 'coopertition' (meaning working cooperatively) and 'gracious professionalism' (meaning supporting others, including other teams).

Core Values is one of the four assessment categories, where each category is it's own award and 25% of the Champions Award. Core Values will be assessed throughout the tournament, including during your presentations with judges and during your Robot Games.

Embracing Core Values

- Core Values starts in school, during FLL team meetings teams should be practicing the ***FIRST*® LEGO® League Core Values**.
- Treat each team meeting as an opportunity for everyone to contribute and try new things. **TOP TIP:** everyone is different, with different strengths and weaknesses, but that doesn't mean that team members should focus only on what they're already good at - judges will want to see how you've shared tasks and helped each other to learn new skills.
- Arguments happen - it's a normal part of working as a team. How can you resolve the problems, is there a compromise? **TOP TIP:** be honest with the Judges about the challenges you have faced, and how you worked together to find a solution.

Getting Started: Robot Design

During the tournament, teams will present their Robot Design to judges, covering areas such as the build, design, programming and gameplay strategy. Building and programming the robot can be a trial and error process - building a great robot is a learning curve consisting of mistakes and creative adaptations. It may seem daunting at first but quickly becomes an exciting challenge!

STEP 1: Open the challenge box

Each team will receive the season's challenge mat and LEGO® mission models after they register for a tournament. The team will need to assemble the mission models according to the **build instructions** (to ensure they work correctly), this can take quite a long time and you might need to ask for some extra pairs of hands. We'd recommend opening this box asap, you won't know what the robot needs to do until the missions are built and working correctly!

STEP 2: Getting stuck in to the LEGO SPIKE Prime Kit

We love innovation, but teams don't have to reinvent the wheel. As a starting point, you could use a simple driving base and adapt it to suit your strategy. Every robot design will be different as every team strategy is different. Get used to how it works, then make some alterations, how could it be better? Think about attachments - can one attachment be used to complete multiple missions? There are also sensors that could be utilised, but you don't have to use them.

TOP TIP: Failure is Important. Failure allows teams to see what doesn't work and what they need to improve. **Remember** to document changes and tell the judges about the various stages the robot and programs have gone through, and how they've been improved.

TOP TIP: Work as a team. Whilst the whole team may not be master builders or programmers, it's important to work together and show judges how everyone in the team has been involved and enhanced their skills throughout the challenge.

Getting Started: Robot Game

During your tournament day, teams get three attempts at the Robot Games. This is where you showcase the robot you have built in school, trying to score as many points as possible on the challenge mat in two-and-a-half minutes. Only your highest score is counted.

The 2026-2027 season theme is BIOGLOW. For this season's robot game, teams will be navigating an exciting journey through the fascinating ecosystems of our world!

WATCH ROBOT GAME POINT SUMMARY VIDEO

TOP TIP: **Teams do not need to come up with a solution for every mission.** Start small, focus on a couple of missions and build your strategy from there.

Resources & understanding the rules of gameplay

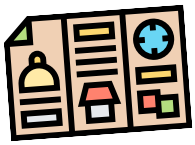
The Engineering Notebook will help guide teams through the challenge and can be used to help document the robot design and project development (download here).

The Robot Game Rulebook outlines what teams need to know about the Challenge (download here).

Challenge Mat: Teams will need to make sure that they setup their playing area properly. This field setup video explains how to set everything up.

TOP TIP: Build a jig. A jig is a guide built from LEGO bricks that ensures your robot starts in exactly the same position for every mission. Placed temporarily in the Launch Area, it provides a physical edge to help position the robot before launching, this helps avoid alignment mistakes during launch.

Getting Started: Innovation Project



Each year, teams are set the challenge to conduct an innovation project in which they have to:

- Identify a problem based on the FLL season theme
- Design an innovative solution to the problem they have identified
- Share the problems and solution with others

The 2026-2027 season theme is BIOGLOW. This season will be an exciting journey through the fascinating ecosystems of our world. Teams will explore how nature, technology, and innovation are connected while developing creative solutions to real-world challenges.

At your regional tournament the teams' Innovation Projects will be assessed by judges (25% of the Champions Award). Teams will also be assessed on their Core Values (25%) during their Innovation Project presentation, and throughout the day.

Top tips:

Finding Inspiration: The Robot Game mat provides examples of problems related to the FLL season theme. It's not just lots of pretty LEGO!

Judges: They're a friendly bunch, but you'll only have 5 minutes to explain your ideas.

Practice and share ideas! You don't have to worry about finding a really specific expert. Sharing your project with anyone who works in STEM will enable you to gain feedback about your solution. The STEM Ambassador programme can help you find a STEM specialist.

Make yourselves heard. When it comes to the presentation we have seen it all! From catchy tunes to costumed plays, or colourful posters - please get as creative as you like! Judges love to see your enthusiasm and creativity, just remember to cover all the essential information as well.

Avoid PowerPoint. You may not have access to a big screen on the day.

Have a Plan B: Technology is great, but we all know that sometimes it doesn't behave. If you're relying on technology for your presentation, make sure you have a Plan B ready in case it doesn't work.