What is FIRST® LEGO® League?

FIRST® LEGO® League (FLL) is the world's largest STEM competition for young people aged 9–16. Students work in teams to:

- design and build a LEGO® robot
- program their LEGO® robot to complete a series of missions
- research the FLL season theme to identify a problem
- 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. We would advise allowing 12 -16 hours, but there is no specific time requirement and we understand timetables are tight. At a regional *FIRST*® LEGO® League Challenge tournament teams are assessed under four categories (below). Each category is it's own individual award, and 25% of the Champion's Award.

ROBOT GAME

Teams build and program their robot to autonomously complete missions on a specialised challenge mat, aiming to score as many points as possible. (25%)

ROBOT DESIGN

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

INNOVATION PROJECT

Teams research the *FIRST*® LEGO® League season theme and explore different ideas relating to that theme. They then 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%)

Participation options for FIRST® LEGO® League Challenge

During the 2026-2027 academic year, LEGO will be starting the transition to new education kits and a new format of gameplay for FLL. To reduce the impact of this change there will be two separate editions of FLL running, where **schools can choose which edition they would like to participate in.** Both editions are structured and assessed under the same 4 categories (Robot Game, Robot Design, Innovation Project, Core Values); the differences are the kit, gameplay and maximum team size.

FOUNDERS EDITION

The Founders Edition is the established challenge format using either the LEGO® MINDSTORM® EV3 Kits or LEGO® SPIKE ™ Prime kits. Student teams can be a maximum of 10 students. **For the 2026-2027 academic year we expect the majority of schools to utilise their existing kits and participate in the Founders Edition Tournament**

WATCH FOUNDERS EDITION BIOGLOW MISSION SUMMARY VIDEO

FUTURES EDITION

The Futures Edition is the new challenge format using LEGO® Computer Science and AI kits. In teams of up to 8, students work together, sharing a wider range of gameplay roles:

- Driver Role: The driver uses a controller to remotely navigate, collecting and delivering game elements.
- Operator Role: The operator designs and uses a mechanical tool to trigger game elements.
- Technician Role: The technician designs and uses a robotic tool trigger game element.
- Specialist Role: The specialist controls the robotic game element embedded within the mission pieces on the field.

WATCH NEW COMPUTER SCIENCE & AI KIT SUMMARY VIDEO

Building a FIRST® LEGO® League team

The max team size is 10 students between 9-16 years for the Founders Edition tournament, and 8 students for the Futures Edition Tournament. So who will be in the team?

WHO?

Will the opportunity be open to all (e.g. via an application process), selective (e.g. focusing on certain demographics such as gender, pupil premium, etc) or a combination?

TEAMWORK

Engaging students with a broad spectrum of interests and skillsets, along with mixing up year groups produces strong teams that can develop year on year.

WHEN?

Decide early on when, where and how long the team will meet each week, and ensure this doesn't inadvertently exclude students who particularly want to engage.

ROLES?

How will the team divide the workload? Will they have clearly defined roles (such as researcher, programmer) or will students be encouraged to rotate responsibilities?

Challenge Box from the IET

The mission mat: needs an area approximately 2.5m x 1.5m to lay out flat, ideally on a tabletop but it can be on the floor. **Field setup instructions are here.** **TOP TIP:** if the mat needs to be put away - roll it, don't fold it.

The mission models: these need to be assembled carefully, following the **build instructions**. They are delicate, careful storage may be needed. **TOP TIP:** Open the FLL challenge box and start building as soon as you can, occasionally the mission models sets are missing pieces.

Robot & Device

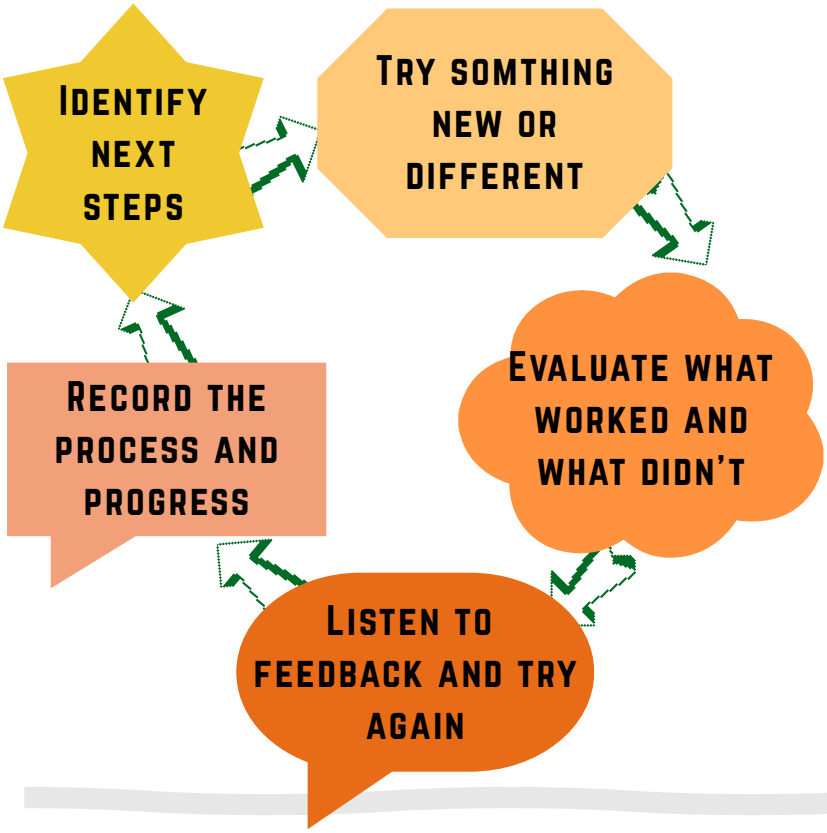
The robot: should be stored safely and securely, and will need charging between sessions. **TOP TIP:** there's no need to start a robot design from scratch! Base it on a previous year's robot or something you've seen online (e.g. here), and develop it each week.

The computers: you will need one device (e.g. a laptop with bluetooth) for each robot, and possibly another device for researching and developing the project. **TOP TIP:** if possible, use the same devices for each role every session.

Performing as a FIRST® LEGO® League team

During sessions teams should be practicing the ***FIRST*® LEGO® League Core Values** of innovation, teamwork, discovery, fun, impact and inclusion. Each session is also an opportunity to build confidence. Be prepared to learn as a team and work together. We'd advise starting slowly and keeping it simple.

As sessions progress, students will start to lead the activity. Encouraging free building, creative design, problem solving and, most importantly, collaborative decision-making will help to strengthen each team. The team coach can help confident students to use their expertise to raise others up. Short feedback loops can help to build skills and confidence:



The Team Meeting Guide (download **here**) is a suggested sequence of 12 x 2.5 hour sessions that team coaches may choose to follow or there's a **suggested quick route here** (12 x 1 hour sessions).

NOTE Teams do not need to follow either of these suggested sequences. Fewer or shorter sessions are not a barrier to participation, please structure sessions to fit within your school or club timetable.

Gameplay instructions & resources

Build Instructions for Mission Models and challenge mat setup

Library of Coach and Team Resources: Robot Game Rulebook & Team Meeting Guide for students

Check here for ongoing updates to the Challenge guidance.

BIOGLOW MISSION SUMMARY VIDEO