

# TEAM MEETING GUIDE







## Intro to FIRST® LEGO® League Challenge

Friendly competition is at the heart of FIRST® LEGO® League Challenge, as teams of up to 10 children engage in research, problem-solving, coding, and engineering as they build and code a LEGO® robot that navigates the missions of the robot game. Teams also participate in an innovation project to identify and propose a solution to a relevant real-world problem.

FIRST LEGO League Challenge is one of three divisions by age group of the FIRST LEGO League program. This program inspires young people to experiment and grow their confidence, critical thinking, and design skills through hands-on learning. FIRST LEGO League was created through an alliance between FIRST® and LEGO® Education.









### FIRST® AGE™ presented by Qualcomm and UNEARTHED™

Robots. LEGO bricks. Game pieces. Tools. Team T-shirts. Volunteer pins. Engineering notebooks. Pizza boxes. Banners. Remove the people from a *FIRST* community event, and these are some of the objects you might see left behind. They are the **artifacts** future archaeologists can use to put together the pieces of the *FIRST* story.

Archaeology helps **uncover cultural histories** through the study of artifacts. The field provides

insight into how living beings have interacted with our planet and each other throughout history. It reconstructs the stories of our communities so we can learn from our past.

During our archaeology-inspired season, *FIRST* teams and supporters will use STEM and collaboration skills to unearth new findings about ourselves and our collective communities to help build a better world. **Dig in with FIRST!** 





### The Coach's Role

As a coach in *FIRST*® LEGO® League Challenge, your job is to guide and support your team while allowing them to take ownership of their work. The team will look to you to help them stay organized, ask thoughtful questions, and provide tools or resources when needed.

You don't need to be an engineer to be a great coach – your goal is to create a space where creativity, curiosity, and teamwork thrive and every team member feels empowered to contribute.

### Coaches in FIRST® LEGO® League Challenge will:

- Facilitate Problem-Solving and Exploration: Guide the team as they design and program their robot, tackle the robot game missions, and develop their innovation project solution.
- **Promote Teamwork:** Encourage team members to share ideas, collaborate, and respect each other's contributions. Ensure every voice is heard and every team member feels valued.
- Champion Core Values: Model the FIRST® Core Values of discovery, innovation, impact, inclusion, teamwork, and fun. Celebrate how your team demonstrates these values inside and outside of team meetings.
- Prepare the Team for Events: Help the team organize their work, practice presenting to judges, and get comfortable explaining their robot, programming, and project solution.
- Be a Role Model: Celebrate every step of progress, no matter how big or small. Encourage resilience, a growth mindset, and a willingness to tackle new challenges.

### **Using this Guide**

The sessions provide a guided experience for the *FIRST* LEGO League Challenge. The sessions are designed to be flexible so that teams of varying experiences can use the materials. Your role is to facilitate and guide the team during the sessions as they complete each task. The Sessions at a Glance page describes the sequence of objectives, while each session page shares specific outcomes. Remember, the tips and timing within this guide are just suggestions, and you can do whatever is best for your team.

### FIRST® Core Values

The FIRST Core Values are fundamental to FIRST and unique to its programs. They emphasize friendly collaboration, respect for the contributions of others, teamwork, learning, and community involvement and are part of our commitment to fostering, cultivating, and preserving a culture of equity, diversity, and inclusion.

Our community expresses the FIRST philosophies of Gracious Professionalism® and Coopertition® through the FIRST Core Values.



We are stronger when we work together.



We respect each other and embrace our differences.



We apply what we learn to improve our world.



We enjoy and celebrate what we do!



We explore new skills and ideas.



We use creativity and persistence to solve problems.

## What Does the Team Need?

### LEGO® Education SPIKE™ Prime Set



**Note:** Other LEGO® Education sets such as MINDSTORMS® and Robot Inventor are also allowed.

### **Electronic Device**

Each team will need at least one compatible device such as a laptop, tablet, or computer. Prior to starting Session 1, you need to download the appropriate software (LEGO® Education SPIKE™ or other compatible software) on to the device.







### **UNEARTHED™** Challenge Set

The Challenge Set comes in a box that contains the mission models, challenge mat, and  $3M^{TM}$  Dual Lock<sup>TM</sup> Reclosable Fasteners, coach pins, and season tiles for the team members. The team should build the models very carefully using the building instructions.

Season Resources



### **Challenge Mat and Table**

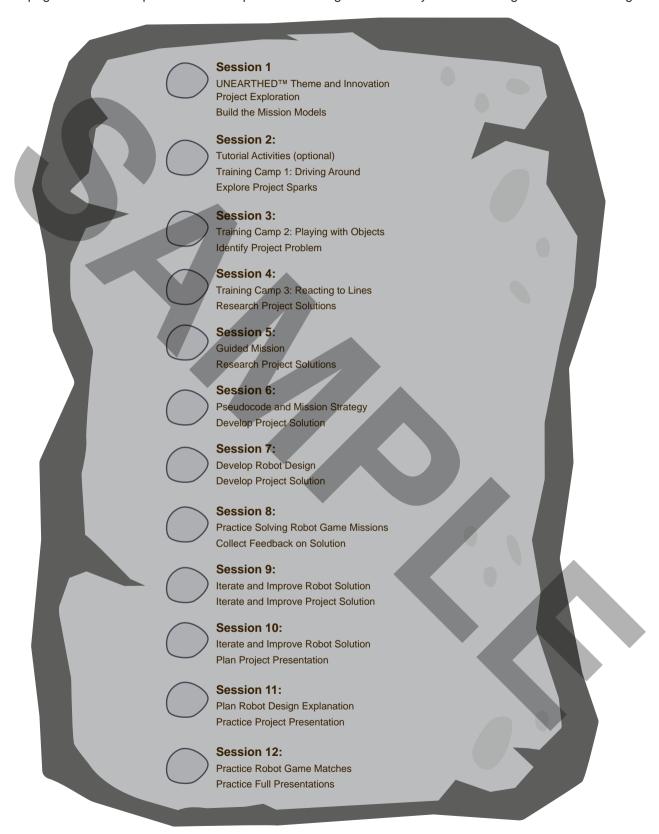
Set up a table with the challenge mat in your classroom or meeting space. Teams can practice on the mat by placing it on the floor. However, robot game matches at official events will be played on a table complete with sidewalls. Instructions to build a table can be found on the Season Resources page.



## Sessions at a Glance



Each session starts with an Introduction and ends with a Share activity. Details for these activities are provided in the session pages that follow. Tips and notes are provided in this guide to assist you in facilitating each team meeting.



It may take two hours or more to complete the tasks in a session. If needed, split sessions into two separate meetings.

## Session Get Started

### **Outcomes**

### In this session, the team will . . .

- Explore the UNEARTHED™ season theme and get to know each other.
- Build the mission models and make connections to the Challenge story and Project Sparks.
- 1 Have the team watch the season videos on the FIRST® LEGO® League YouTube channel and read pages 3-9 in their Engineering Notebooks.
- 2 Provide the model building instructions and show the field setup video to the team.
- The team can work together or as individuals to build the models. Be sure to inspect and test the models to ensure they function correctly. Use the Robot Game Rulebook and mission video to understand how the models work.
- 4 Encourage the team to investigate the mat and the mission models to inspire them. The team should record ideas for possible innovation project problems.
- 5 Lead a discussion about the Project Sparks and Challenge story and how they relate to the mission models.



Season Resources Page

### 1 > Introduction

- Get to know your team members and select your team name.

  Watch the season videos
- watch the season videos and read pages 3-9 to learn how FIRST® LEGO® League Challenge works and about the UNEARTHED™ robot game and innovation project.

### 2 > Tasks

- Learn more about the season theme by building the robot game mission models.
- Place each model where it belongs on the Challenge mat. Read page 7 of the Robot Game Rulebook to learn how to set up the table
- Explore how the models work.
  Connect them to the Project
  Sparks on page 6.
- Use the space on this page to write notes about the mission models or to answer the reflection questions.

### → Share

- Discuss the reflection questions.
  Get together at the mat. Talk about how the mission models connect to the UNEARTHED theme.
- Clean up your space.

### → Reflection Questions

- What ideas does your team have after reading about the innovation project?
- How do the mission models relate to the Challenge story or Project Sparks?
- Which mission models look interesting to you?

## Session

Record information about your team here.

Sessions begin with an introduction prompt for the team to discuss or record ideas.

### Our notes:

Open space is provided in each session for the team to collaboratively capture their thoughts, ideas, diagrams, and notes.

### Tips

- Use the checkboxes to mark when you are finished with a task.
- During each meeting, record what you have learned and what you want to improve.

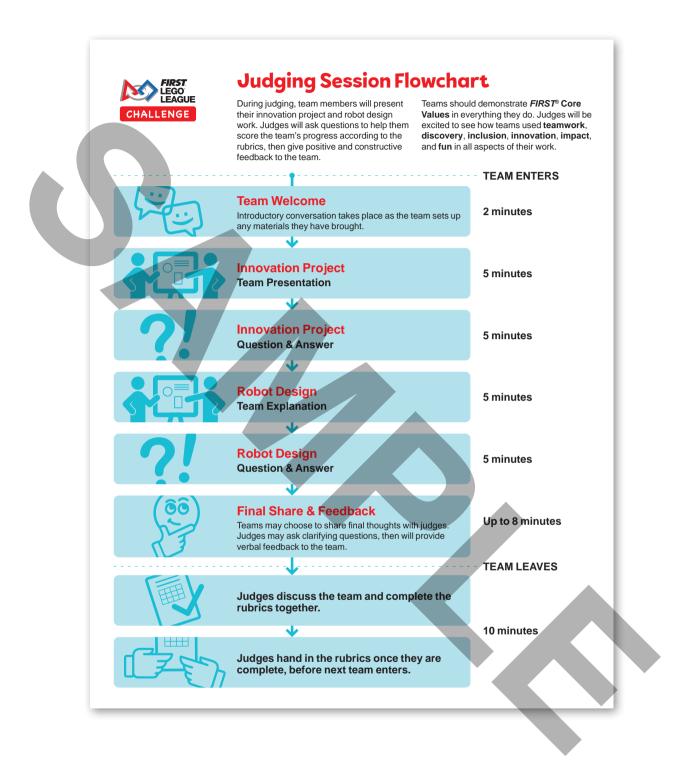
Some sessions will have helpful tips for the team.



The Robot Game Rulebook is a great resource to use throughout the season.



## **Prepare for the Event**



It's normal to feel like there's still so much to do as your first event approaches. The most important thing is to strive to complete as much as possible and come ready to share what you've accomplished so far. Whether it's your robot design, innovation project, or Core Values, your event will give you new ideas and inspiration to keep building on what you've started.

If there is too much information for the team to cover in detail, visual aids can be very useful references. Make sure the team practices how they will use them in the judging session, keeping in mind the time limits for sharing their innovation project and robot design work.

