

**FIRST
LEGO
LEAGUE**

Event Guide for Teams



FIRST® LEGO® League is the result of an exciting alliance between FIRST® and the LEGO® Group.





My Tournament

My event date: _____ My event location: _____

Event start time: _____ Event end time: _____ Pit number: _____

Event organizer: _____

Coaches' Meeting: _____
(TIME) (LOCATION)

Opening Ceremony: _____
(TIME) (LOCATION)

Core Values Judging: _____
(TIME) (LOCATION)

Project Judging: _____
(TIME) (LOCATION)

Robot Design Judging: _____
(TIME) (LOCATION)

Robot Practice Round: _____
(TIME) (LOCATION)

If available:

Robot Practice Round: _____
(TIME) (LOCATION)

Robot Practice Round: _____
(TIME) (LOCATION)

Official Robot Round 1: _____
(TIME) (LOCATION)

Official Robot Round 2: _____
(TIME) (LOCATION)

Official Robot Round 3: _____
(TIME) (LOCATION)

Closing Ceremony: _____
(TIME) (LOCATION)

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Check with your local Partner for information on how to participate in an official event in your region.

www.firstinspires.org/about/contact-us

Needed

- Team roster <https://www.firstinspires.org/resource-library/youth-team-member-consent-and-release-form>
- Your team's programmed LEGO® MINDSTORMS® robot
- Your team's robot attachments
- Printout of programs for Robot Design judging

Recommended

- Spare LEGO® bricks and elements
- Laptop with LEGO® MINDSTORMS® software installed
- Spare batteries for robot
- USB cable
- Bin to carry robot and attachments

Confirm whether to bring

- Core Values Poster ⚡ *Your event organizer can provide instructions if required.*
- Robot Design Executive Summary ⚡ *Your event organizer can provide instructions if required.*
- Completed copies of Team Information Sheet ⚡ *Your event organizer can provide instructions if required.*
- Power strip
- Extension cord
- Lunch
- Snacks and beverages
- Money for lunch or snacks

Optional

- Props for Innovation Project presentation
- Innovation Project prototype
- Games for downtime
- Team identity display

Know before you go

- The cost of any regional tournament registration fees, and how are they paid
- If there are any special forms or information sheets needed to complete before arriving
- Whether the pit space is open to the public or just to teams
- The format your event will use for Core Values, Robot Design, and Innovation Project judging
- Who is allowed in the judging rooms
- How lunch/snacks will be handled
- If the tournament schedule will be available before the event

FIRST® LEGO® League events offer a fun and exciting way for teams to learn, showcase their accomplishments, and celebrate their hard work throughout the season. Even if your team does not feel ready, we encourage all teams to participate in a tournament.

In many regions, you will be responsible for signing your team up for the event(s) you wish to attend and paying any required event fees. Check with your Partner about what steps you need to complete in your region.

It is important to understand the differences between the event types.

- ❖ **A Championship Tournament** is the highest level of a FIRST LEGO League Official Event for Official Teams in an Official Region.
- ❖ **Qualifying Tournaments** or “Qualifiers” are one type of a FIRST LEGO League Official Event for Official Teams and lead up to the region’s Championship. A Qualifier can advance teams directly to the Championship or to an additional Qualifier level, such as in a multi-level or multi-country Qualifier system. Teams are only eligible to win awards or advance through the **first official event** they attend each season.
- ❖ **Community Events** encompass all other events outside of Official, which include events hosted by teams and the broader community such as summer camps, workshops and scrimmages not managed or controlled by the Partner, FIRST® or LEGO®. Community Events do **not** qualify a team to attend a Championship tournament.
- ❖ **An Open Invitational/International** is an Official Event hosted by a FIRST LEGO League Partner that includes invitations to teams from outside the Partner’s defined region. Opens are hosted by FIRST LEGO League Partners and abide by Championship standards.
- ❖ **World Festival is an Official Event run by FIRST and is the FIRST LEGO League component of the FIRST Championships held each April in the United States.** World Festival is the global celebration of FIRST LEGO League teams from around the world. This season, there will be a World Festival in Houston and one in Detroit.

Most FIRST LEGO League events are free to spectators and all are open to the public. Encourage parents, siblings, sponsors, and friends to attend and cheer on your team!

★ REMINDER

Verify with your local Partner what steps you need to take if you plan to attend an official event. Find your local Partner at

www.firstinspires.org/about/contact-us



Prepare for a Tournament

When your team attends a tournament, your robot will compete in 2 different areas: Robot Performance and Robot Design.

Robot Performance

FIRST® LEGO® League teams receive a numerical score during Official Robot rounds. The Robot Performance Award recognizes a team that scores the most points in the Robot Game. Your team's score will be determined by the number of points the robot scores during scheduled matches.

At Qualifier and Championship events, your team will compete in at least 3 official matches and only the highest score from those matches will count. Aim to have a robot that can perform well consistently, but do not be discouraged by a single low-scoring match.

Robot Game details

- ▶ The robot has 2½ minutes to complete as many Missions as possible.
- ▶ A referee oversees the action to ensure that everyone is following the rules.
- ▶ Two Robot Game tables are attached back to back to form a full tournament table, so your team will participate opposite a team on the other side. You are **not** competing against that team. Rather, both teams will try to earn their own highest score. The robots are isolated from each other by table border walls, but there is always at least 1 Mission that allows for interaction between robots on adjacent tables.
- ▶ Your 2 team members who operate the robot should follow the referee's instructions at the tournament table. These are called technicians. They should not be afraid to ask the referees if they have any questions or concerns. Before starting, have them scan the field to make sure it is properly set up. If the technicians have a question about the field setup they should talk to the referee immediately. Once the match starts, it is too late to change the field.
- ▶ Teams are allowed to rotate technicians during matches so that more team members get to participate.
- ▶ If your team rotates technicians in and out between missions, make sure all technicians are prepared to change. Remember that the clock does not stop for technicians to change. Be aware that many tournaments do not allow coaches or team members who are not technicians into the area immediately around the tournament table. Coaches and additional team members will need to watch from the designated spectator area.

**TIP**

By the time your team runs several matches, performs for the Robot Design judges, and tests any programming changes, the robot's batteries may be low. Remember to check the batteries throughout the day.

Scoring Confirmation

- ▶ At the end of each match, the referee will ensure the scoresheet accurately reflects the condition of the field. The referee will then review your team's scoresheet with the 2 technicians, including completed Missions and penalties. This is your team's chance to bring up any difference of opinion. **A student team member must talk to the head referee if there is any disagreement.**
- ▶ After the referee and technicians have discussed the scoresheet, a team member must sign it to signify the team's official endorsement.
- ▶ As in other competitions, the **referee's ruling on the field is final**. Make sure your team and its supporters are prepared to graciously accept the referee's final decision.

ROBOT GAME**QUESTIONS?**

Email fillrobotgame@firstinspires.org (this account will NOT advise on strategy.)

The *FIRST*® LEGO® League tournament experience includes 3 judged components: Core Values, Innovation Project, and Robot Design. The judging process is designed to evaluate each team's accomplishments throughout the season and to provide feedback.

Judges use a rubric for each area to record their feedback. The rubrics guide the judges through key criteria that reflect what is most important about the *FIRST*® LEGO® League experience. Rubrics also create a consistent way to differentiate between teams at different levels of achievement. Your team will be assessed as Beginning, Developing, Accomplished, or Exemplary in each category.

The rubrics are **not** scoresheets. They provide insights into the information your team shared with the judges and where they excelled or might need improvement. Awards are *guided* by rubrics but are **not** issued by a "rubric score."

After the event, completed rubrics should be returned to teams to help them understand their strengths and areas for improvement. In addition, teams are encouraged to use the rubrics as a roadmap throughout the season. Pay close attention to the higher levels of achievement to understand the criteria that will help define a reliable, well-programmed robot design, a thoroughly researched and effective Innovation Project, and a high-functioning team that embraces the *FIRST*® Core Values.

ROBOT GAME

PROJECT

CORE VALUES

**TIP**

Review the rubrics included in this guide to understand the criteria judges will use to evaluate your team at a tournament.

Robot Design

Robot Design judges will interview and observe your team. Some events require formal Robot Design presentations, while at other events the judges may simply ask your team questions. Have your team prepare a basic introduction to the robot and the roles each member had in designing, building and programming it. Robot Design judges will ask teams about their mechanical design and the programs they wrote. They will want to see and hear about any innovative techniques or strategies the team came up with to solve problems and complete Missions. Through their questions they will ensure that the children completed and understand all work associated with building their robot.

Bring your team's programs to the judging session. They may be on a laptop computer, tablet, or printed on paper. Judges may ask to review some parts of your team's programs.



There may be a competition table with Mission Models in the judging area. Your team should be prepared to demonstrate their solution to at least one of the Missions and talk about their strategy. Review the information about your tournament carefully and contact the tournament organizer if you have any questions.

Pay attention to any information provided by your tournament organizer. Even when formal presentations are not required, some judges simply prefer to start interviews with a general, "Tell us about your robot." Help your team prepare for different scenarios and make sure the team members are comfortable demonstrating the robot.

Core Values

We expect teams to display the Core Values throughout the season. Tournament organizers, judges, referees, and others are expected to uphold the Core Values, too. Teams should receive the benefit of the doubt whenever possible.

Teams will be given the opportunity to explain themselves if an issue arises. Judges or referees may ask your team questions about who worked on your robot or Project idea.

Sometimes teams assume that another team could not have done the work they present without the direct involvement of adults. Remember that children are remarkably creative, and some are highly sophisticated at programming or software applications for presentations. Don't assume that you know what another team is capable of, and don't let your team members make assumptions either.

Prepare for a Tournament

Unlike other areas of *FIRST*® LEGO® League, teams usually do not have tangible results (like a robot or a Project idea) to show to the Core Values judges at a tournament. Be prepared to talk about how you apply Core Values to all you do throughout the season.

All teams operate differently, and teams can be successful with different styles. Some teams have a strong leader, and some have a democratic approach. Some teams assign each child has a specialized role, and other teams share all responsibilities equally. As long as team members understand and use the Core Values in their interactions, no working style is better than others.

Judging

Core Values judges will assess how well your team understands and integrates these values into their tournament, meetings, and daily life. Be ready with examples of how your team demonstrated the Core Values throughout the season. Have team members take turns sharing these examples in front of the group, and ask other children to give feedback. Remember to keep the feedback constructive.

There are multiple formats for Core Values judging. Some events will rely on interviews, while others will use a hands-on teamwork activity. Your event may require teams to create a Core Values Poster as a tool to communicate with the judges, so check with your tournament organizer.

Teams **do not need** to bring their robot or Project materials to Core Values judging sessions.

Innovation Project

Each team has **5 minutes** to present—including setup. Exceeding the time limit is a common mistake. Some judges will interrupt your team and stop the presentation at **5 minutes** while others may shorten the question time afterward to compensate.

Judges at a tournament will *only* consider what your team tells them, so make sure your team shows or describes how they met the requirements. Anything they want the judges to know should be included in your team's presentation.

After your team's presentation, the judges may ask questions of your team as a whole or may direct questions to individual team members. Your team should be prepared for either format.

To be eligible for Innovation Project awards, your team must:

1. Meet any season-specific requirements outlined in the Challenge.
2. **Identify the problem** your team chose to research.
3. Describe your team's **solution**.
4. Describe how your team **shared** its findings with others.
5. Meet the format requirements:
 - Present live; teams may use media equipment (if available) but only to enhance the live presentation.
 - Include all team members; each team member must participate during the judging session in some way.
 - Setup and presentation must be completed in **5 minutes** or less with no adult help.



PROJECT

QUESTIONS?

Email flprojects@firstinspires.org

Applications

A list of tournaments will be communicated by your region's leadership. Teams apply either online or directly with the tournament organizer for most tournaments. Tournament application or assignment processes vary by region, so check with your region's *FIRST*® LEGO® League Partner if you are unsure of the process.

Some regions may not have a finalized tournament schedule until the season is under way. Go ahead and meet with your team in the meantime. If you do not see any tournaments listed in your area, contact your Partner for more information.

Logistics

Adult Supervision and Safety

Make sure all team members are supervised at all times. Use a buddy system and have each child travel with at least one other person. Remind each person attending with your team that everyone is expected to demonstrate the Core Values at all times, including parents and guests.

If any member of the team needs special accommodations, the coaches should speak with the Partner/Tournament organizer prior to the event.

In the event that you witness any kind of incident, medical or non-medical, please report it immediately to the tournament organizers. They may have questions or ask you to help them document what happened.

**TIP**

Tournaments are exciting but can be very LOUD. If you have anyone on your team with sensitive hearing, bring ear plugs or talk to the tournament organizer about reasonable accommodations.

Check-in

Upon arrival, sign in at the check-in table to let organizers know you are there. Pay attention to messages from your tournament organizer about what forms are required. Keep your forms organized and ensure you have all needed paperwork when you arrive to help reduce the wait.

Important Locations

Make sure your team knows how to find:

- ❖ **Practice Table(s):** Many tournaments provide access to a practice table where teams take turns running matches with their robot. If a practice table is provided, scheduling is often tight and teams may need to reserve a time slot to practice.
- ❖ **Competition Area:** The competition area is where the official Robot Game tournament tables are located and robot performance matches are scored by official referees. Tournament tables will be set up in pairs. At each full table, 2 teams will compete side-by-side with their robots.
- ❖ **Judging Sessions:** Judging sessions for Core Values, Robot Design, and the Innovation Project generally take place in rooms separate from the competition area. Your team will participate in each session at some point during the day, so make sure you understand where and when your team should line up.
- ❖ **Team Pit Area:** Your team may be assigned a specific location to set up in the team pit area when you register (a pit station or pit table), but some events use a first-come, first-served system. Generally, a pit table will be provided so your team can set up a display, showcase your Core Values, robot, and Innovation Project, or make minor repairs. If your team has any posters or banners, set them up to show your team spirit. Regardless of the size of your team's pit station, be gracious and keep your team within the borders of your space. If your team brings a laptop, make sure it's fully charged just in case electrical outlets are not accessible. The pit area will usually include a Pit Administration table where you can ask questions or get information. Check with the event volunteers to find out if spectators are allowed in the pit.

Time Management

Review the day's schedule with your team. Make sure your team is ready and on time for each activity, judging session and robot round. Use the "My Tournament" worksheet at the front of this guide to track where your team needs to be and when.

The Coaches' Meeting

Many events hold a meeting for coaches at the very beginning of the day. A coach should attend or send an adult representative. Tournament organizers may discuss any changes to the day's schedule or logistical concerns. This is your team's last opportunity to clarify the rules before the competition begins.

The Opening or Welcome Ceremony

An opening ceremony helps set the tone for the day. Judges, referees, and special guests are introduced, the Challenge and scoring are explained, and tournament organizers tell teams about the day ahead.

After the opening, teams not immediately scheduled for robot performance matches or a judging session should return to the pit to listen for queuing, use the practice fields for final robot adjustments, or prepare to meet with the judges.

Some tournaments hold a welcome ceremony in the middle of the day instead of an opening ceremony. Make sure your team attends regardless of the timing.

Robot Performance Rounds

There are 2 types of robot performance rounds: practice and official. If your event offers practice rounds, they are optional but may help your team work out any last-minute issues. During the day, teams get at least 3 official rounds lasting 2½ minutes each. **Your full competitive team (up to 10 students) must attend each round, although only 2 technicians will be allowed at the tournament table.**

Judging

Judging often happens in areas which are separated from the main competition areas to eliminate noise and distractions. **Your full competitive team (up to 10 students) should report to each of these sessions at their designated time during the day.** Make sure the whole team knows where all sessions are located and what time the team needs to be there.

Teams meet with a panel of judges for 10 to 15 minutes in each judged area. Teams should always ask the judges if they are ready to begin before starting to set up. Some judging is done by observing teams in action. Check with your tournament organizer to find out what format they use if it isn't mentioned in the information you receive.

There is usually a break between each judging session so teams can travel to their next location and judges can have a few minutes to discuss the team they just saw. A timekeeper typically ensures sessions remain on schedule.

Some tournaments have restrictions on the number of adults that accompany children into the judging sessions and whether recording judging sessions is allowed. Please recognize that these rules are not designed to make the judging or performance process secret, but to ensure fair judging. Trust the children to represent themselves well.

Awards Selection

At the end of judging sessions, the judges meet to review all teams.

When time allows, some events incorporate a second round of judging sessions referred to as "call-backs." The length and format for these sessions is not prescribed and can vary significantly due to event and schedule constraints.

Call-backs may be requested for many reasons, ranging from a judge wanting additional clarification about a team, Innovation Project, or robot to multiple judges needing to see closely ranked teams that may be in consideration for an award. Please be careful not to make assumptions about your team's chances based on a call-back request. Many awards are decided without the need for them and **a call-back never guarantees an award will be given.** If your team is asked to participate in a call-back, be sure to find out whether the team needs to bring their Innovation Project, robot, or other materials.

Judges may also visit teams in the pit. Be sure team members and a supervising adult are at your pit station if a visit is expected. Otherwise, cheer on other teams and share what you have learned with them.

Prepare your team for a waiting period at the end of the day. This can be an ideal time for your team to pack up your pit table and displays and load up to leave after the awards ceremony. Your tournament may have a special guest speaker or run a Robot Game exhibition round to keep the crowd occupied while the judges make their decisions.

Awards at official events recognize those teams that demonstrate extraordinary achievement in key areas central to the *FIRST* LEGO League mission. Coaches should help each team member to understand that the real reward is what they discover and learn, both from one another and through the *FIRST* LEGO League experience.

The Closing Ceremony

The closing ceremony is a celebration of everything the teams have accomplished all day and season. Be sure to plan to attend. Awards will be presented at this time.



Judges at events are usually volunteers, just like many coaches. They may be educators, experts in an area related to the Challenge, or perhaps a community member or industry leader who cares about inspiring children.

The judging process at tournaments is overseen by a key volunteer known as the judge advisor. The judge advisor leads the judging team and works with the tournament organizers to ensure that the event meets judging standards. Just as the head referee determines the recorded score at the Robot Game tournament table, the judge advisor's word is final when it comes to any judging questions or decisions at an event. If your team has questions about a judging session, please ask to speak with the judge advisor right away.

Judges Are All Around

In addition to evaluating teams using the rubrics during scheduled interview sessions, judges may also use less formal conversations and observations throughout the event to learn more about teams.

Remind your team that judges may not openly demonstrate who they are, but their ears and eyes are wide open. Lending a helping hand to a team that forgot to bring something speaks loudly about your team's understanding of *Gracious Professionalism*®.

Judges will also consider any input provided throughout the day by referees, event volunteers and others who interact with the team. Help your team members to understand the process and encourage them to feel comfortable speaking with judges and other event volunteers.



Judging Subjectivity

With the exception of Robot Performance, which is objectively determined by scores earned on the competition table, team achievement in all other award categories is subjectively judged. Even the most experienced and skilled judges will not assess every team in exactly the same way. Judges work in pairs or small groups to create more balance in the way they review teams. In addition, tournament organizers train their judges and use other tools to create a level playing field.

Judged awards are inherently subjective and this is important for all teams to understand. Awards are determined through a normalization process, which includes deliberations and discussions.

Deliberations

Led by the judge advisor, *FIRST* LEGO League deliberations rely on an in-depth discussion of all teams eligible for awards. Using observations and evaluations captured by the rubrics as one form of input, judges consider any and all additional team information gathered throughout the day.

Team achievements are reviewed and contrasted as the judges engage in often-intense discussion to decide which teams will be recognized with awards. Judges work together as a team to create an initial ranking of award candidates based on a team's relative strengths and weaknesses compared to other teams and the award criteria as defined in the rubrics.

Once these initial rankings are complete, the judges enter the final phase of deliberations. Each Champion's Award candidate is discussed. All judges vote to determine the winner. After this award is given, other awards are determined using the rankings from initial deliberations. Judges follow the distribution policy outlined in the next section.

Awards Distribution

The goal of the *FIRST* LEGO League awards distribution process is to congratulate as many teams as possible who most deserve recognition at the tournament. With the exception of Robot Performance (which any team may receive based on the points they earn), teams may only win 1 Core Award per tournament.

Judges must consider how to recognize the best set of award candidates. Sometimes this means an award may not go to the individual team with the highest ranking in a category if that team is already being recognized with another award. For example, if a team receives the Teamwork Award they will not also receive the Presentation Award even if they were initially ranked highest for presentation. They will receive the award in the area where judges agree they excelled the most.

FIRST LEGO League judges deliberate to determine how to recognize the entire field of teams in the most appropriate way possible, and to celebrate the achievements of **all** teams.

Awards Structure

The **Champion's Award** is the most prestigious award that a team can win at an official *FIRST*® LEGO® League event. It celebrates the ultimate success of the *FIRST*® mission. Core Values, Innovation Project, Robot Design and Robot Game are considered equally important for this award. This means that all three judged sessions (Core Values, Innovation Project and Robot Design) and the Robot Game performance are weighted equally (each worth 25% of the team's overall score) to determine the initial group of Champion's candidates. The Champion's Award ranking is also used to determine which teams advance from Qualifiers to other official events.

FIND ONLINE

The full list of awards and their descriptions can be found in the Judging & Awards section of www.firstlegoleague.org.

The remaining awards fall into 3 categories:

- ♦ **Core Awards:** recognize teams in areas considered “core” to the *FIRST* LEGO League mission.
- ♦ **Special Recognition Awards:** honor the service of individuals who support *FIRST* LEGO League and teams in an exceptional way. A team may win a Special Recognition Award even if they have also won a Core Award.
 - Each region has an allocation to nominate a team or teams for the Global Innovation Award. The final selection process for this award happens outside the competition season.
- ♦ **Optional Awards:** recognize the most remarkable teams for which a standard award does not exist. These may take the form of Judges Awards or a separate local award with criteria established by an individual tournament organizer.

The selection of awards offered at tournaments may vary by event size and type, so please contact your local organizer if you have questions about the specific awards available at your tournament.

Awards Eligibility and Advancement

Doing well on the rubrics and achieving a high score in the Robot Game are important for winning awards, but they are not the only factors. Your team also needs to follow the *FIRST* LEGO League Participation Rules and policies to be eligible for awards.

Make sure your team and everyone associated with your team understands policies that may impact award eligibility. If you need clarification, the time to ask questions is **before** an event. Once on site, all decisions impacting award eligibility are determined by the local judge advisor and/or event organizer. Just like decisions made by the head referee at the table, their authority is final.

Advancement

In accordance with the Participation Rules, teams are eligible for awards and advancement **only** at the first official event of each qualifying level attended during the season. In most cases, event capacity within a region limits team participation to only one qualifying event each season.

The qualifier advancement policy is based on Champion's Award criteria as described above.

Contact your local Partner or Tournament Director to find out how many teams will be advancing from the event you are attending. (See the official Advancement Policy <http://www.firstlegoleague.org/2-does-first-lego-league-have-official-policy-how-teams-advance-championships-qualifiers>).

Adult Intervention

It is easy for anyone to get caught up in the excitement at tournaments, but they are the team's opportunity to shine. Adults play an important role in coaching and supporting the team, but the team's robot and Innovation Project **must be the work of team members**. If judges or referees notice adults directing a team's performance, cuing the team, or prompting children, they may ask the adult to leave the immediate area.

Judges are trained both to give any benefit of the doubt to the team and to recognize an overabundance of adult participation. A team's inability to answer questions, or to make robot adjustments without the direct assistance of an adult, will be evident and will impact award eligibility.

JUDGING QUESTIONS?

- Check the Judging FAQ on www.firstlegoleague.org
- Email other judging questions to fljudge@firstinspires.org

Top 10 Tournament Tips

1. **FIRST® LEGO® League is about what happens all season, not just on event day.** Focus on what you've learned and how much you have improved since your season started.
2. **Make sure you read and understand the Participation Rules**
<http://www.firstlegoleague.org/challenge#block-block-17>
3. **Judges may observe your team at any time during the day.**
4. **Don't be nervous.** Teams and judges are there to learn from each other and celebrate with you.
5. **Make sure your team and supporters demonstrate Core Values – even when things don't go exactly as you planned.** Remember, everyone you encounter is volunteering their time.
6. **Make time for fun breaks throughout the day, especially before judging sessions.** Have a cheer, a song, or a game ready to stay energized.
7. **Get a good night's sleep the night before the tournament.** Be prepared for loud noise and a long day.
8. **Go over what you want to say before going into your judging sessions,** either out loud to team members or silently to yourself. Practice with the rubrics to see where you might improve.
9. **Take the time to go around the pits and meet the other teams.** Show your enthusiasm for their projects and robots. Your encouragement can mean a lot to another team.
10. **Have fun!** You've worked hard all season. Be proud of all you have accomplished!



Core Values

Team Number _____

Judging Room _____

For each skill area, clearly mark the box that best describes the team's accomplishments. If the team does not demonstrate skill in a particular area, then put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. Use the back for additional comments if needed.

	Beginning	Developing	Accomplished	Exemplary	
Inspiration	Discovery Team explored and improved skills or ideas within all three aspects (Robot, Innovation Project, Core Values) of <i>FIRST</i> ® <i>LEGO</i> ® League; used creativity & persistence to solve problems				
	N D	minimal examples / all examples from 1 aspect	some examples / examples from 2 aspects	multiple examples / examples from all 3 aspects	multiple examples of exploring new skills & ideas; extensive examples of improving in all 3 aspects
	Team Identity Fun expression of team identity; team expresses how they enjoy <i>FIRST</i> LEGO League				
	N D	minimal identity; minimal enjoyment	some identity; enjoyment is unclear	clear identity; team clearly expresses their enjoyment	clear identity; team engages others in their enjoyment
	Impact Team applied knowledge, skills and/or values learned in <i>FIRST</i> LEGO League to improve themselves and their world				
	N D	unclear impact of <i>FIRST</i> LEGO League	knowledge, values or skills impacted some team members	knowledge, values or skills impacted all team members	knowledge, values or skills impacted all team members AND team used values or skills to help others
Teamwork	Effectiveness Problem solving and decision-making processes help team achieve their goals				
	N D	team goals AND team processes unclear	team goals OR team processes unclear	clear team goals and processes	clear processes enable team to accomplish well defined goals
	Efficiency Resources used relative to what the team accomplishes (time management, distribution of roles and responsibilities); team is stronger together than its individual members				
	N D	limited time management / role definition	clear time management / role definition	good time management / role definition allows team to avoid wasting effort OR resources	excellent time management / role definition allows team to avoid wasting effort AND resources
	Kids Do the Work Appropriate balance between team responsibility and coach guidance				
	N D	limited team responsibility AND excessive coach guidance	limited team responsibility OR excessive coach guidance	Good balance between team responsibility and coach guidance	team independence with appropriate coach guidance
Gracious Professionalism®	Inclusion Consideration and appreciation for the contributions (ideas and skills) and differences of all team members.				
	N D	limited consideration / appreciation for contributions	consideration / appreciation for contributions of most team members	clear consideration / appreciation for contributions of all team members	all team members' contributions actively welcomed & recognized
	Respect Team members act and speak with deference so others feel valued—especially when solving problems or resolving conflicts				
	N D	not evident with majority of team members	evident with majority of team members	clearly evident with all team members	clearly evident with all team members AND team encourages respect in others
	Coopertition® Learning is more important than winning; Team learns from, teaches, and cooperates with each other and competing teams. Team competes in the spirit of friendly competition				
	N D	unclear or lack of team members cooperating with each other	team members cooperate with each other	team actively learns from and teaches teammates / celebrates other teams' successes	team actively helps, learns from, or collaborates with other teams AND celebrates other teams' successes

Comments

Great Job...

Think about...

For each skill area, clearly **mark the box that best describes the team's accomplishments**. Teams should demonstrate everything at the level; if they are missing part, mark the level below. If the team does not demonstrate an area, put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. Use the back for additional comments if needed.

*Required for Award Consideration

Beginning
Developing
Accomplished
Exemplary

Research	Problem Identification *		Clear definition of the problem being studied		
	N D	unclear; few details	partially clear; details missing	mostly clear; detailed	clear; very detailed
	Sources of Information		Quality and variety of data/evidence and sources cited		
	N D	minimal quality; variety limited	quality OR variety need improvement; did not include professional(s)	sufficient quality and variety; included professional(s)	extensive quality and variety; included multiple professionals
Innovative Solution	Team Solution*		Clear explanation of the proposed solution and description of how it solves the problem		
	N D	difficult to understand	some parts confusing	understandable	easy to understand by all
	Innovation		Degree to which the team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way		
	N D	existing solution/application	solution/application contains some original element(s)	original solution/application; potential added value	original solution/application; demonstrated added value
Presentation	Solution Development		Systematic process used to select, develop, evaluate, test, and improve the solution (Implementation could include cost, ease of manufacturing, etc.)		
	N D	process AND explanation need improvement	process OR explanation need improvement	systematic process included evaluation	systematic process included evaluation; implementation considered
	Sharing*		Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts		
	N D	shared with family / friends	shared outside family / friends (such as classmates)	shared with one audience who may benefit OR one professional	shared with multiple audiences who may benefit OR multiple professionals
Research	Creativity		Imagination used to develop and deliver the presentation		
	N D	minimally engaging OR unimaginative	engaging OR imaginative	engaging AND imaginative	very engaging AND exceptionally imaginative
	Presentation Effectiveness		Message delivery and organization of the presentation		
	N D	unclear OR disorganized	partially clear; minimal organization	mostly clear; mostly organized	clear AND well organized

Comments

Great Job....

Think about...

For each Robot Design criteria, clearly mark the box that best describes the ability of the team to demonstrate or provide evidence (such as analysis or test data) that their robot and processes meet that level of achievement. If the team does NOT describe a particular criteria at all, then put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. Use the back for additional comments if needed.

		Beginning	Developing	Accomplished	Exemplary
Mechanical Design	Durability	Robot designed to maintain structural integrity and have the ability to withstand rigors of competition			
	N D	quite fragile; breaks a lot	frequent or significant faults/repairs	rare faults/repairs	sound construction; no repairs
	Mechanical Efficiency	Robot designed to be easy to repair, modify, and be handled by technicians			
	N D	excessive time to repair/modify	inefficient to repair/modify	appropriate time to repair/modify	streamlined time to repair/modify
	Mechanization	Robot mechanisms designed to move or act with appropriate speed, strength and accuracy for intended tasks (propulsion and execution)			
N D	imbalance of speed, strength and accuracy on most tasks	imbalance of speed, strength and accuracy on some tasks	appropriate balance of speed, strength and accuracy on most tasks	appropriate balance of speed, strength and accuracy on every task	
Programming	Programming Quality	Programs are appropriate for the intended purpose and should achieve consistent results, assuming no mechanical faults			
	N D	would not achieve purpose AND would be inconsistent	would not achieve purpose OR would be inconsistent	should achieve purpose repeatedly	should achieve purpose every time
	Programming Efficiency	Programs are modular, streamlined, and understandable			
	N D	excessive code and difficult to understand	inefficient code and challenge to understand	appropriate code and easy to understand	streamlined code and easy for anyone to understand
	Automation/Navigation	Robot designed to move or act as intended using mechanical and/or sensor feedback (with minimal reliance on driver intervention and/or program timing)			
N D	frequent driver intervention to aim AND retrieve robot	frequent driver intervention to aim OR retrieve robot	robot moves/acts as intended repeatedly w/ occasional driver intervention	robot moves/acts as intended every time with no driver intervention	
Strategy & Innovation	Design Process	Developed and explained improvement cycles where alternatives were considered and narrowed, selections tested, designs improved (applies to programming as well as mechanical design)			
	N D	organization AND explanation need improvement	organization OR explanation need improvement	systematic and well-explained	systematic, well-explained and well-documented
	Mission Strategy	Clearly defined and described the team's game strategy			
	N D	no clear goals AND no clear strategy	no clear goals OR no clear strategy	clear strategy to accomplish well-defined goals	clear strategy to accomplish most/all game missions
	Innovation	Team identifies their sources of inspiration and creates new, unique, or unexpected feature(s) (e.g. designs, programs, strategies or applications) that are beneficial in performing the specified tasks			
N D	No original feature(s)	original feature(s) with some added value or potential	original feature(s) with the potential to add significant value	original feature(s) that add significant value	

Comments

Great Job...

Think about...

Team Celebrations

Acknowledging and celebrating your team's accomplishments, both individual and collective, is essential. Even if the team didn't reach all its goals, they have accomplished a lot and the members should be proud. Plan a team celebration. Organize a pizza party or potluck dinner. Invite family and friends to see what your team has accomplished. The team can display its Project, demonstrate its robot, and showcase team mementos, scrapbooks, and photos.

Acknowledge Each Team Member

Tell each child how she or he contributed to the team. Talk about the great ideas each team member had, the problems solved, the way they supported each other, and everything learned during the season.

As an end-of-the-season teamwork exercise, ask your team to write down what each member contributed. Then present to each child a certificate showing the contributions that other team members cited. This is a great way for members to understand that their contributions to the team are greater than the tasks that each performed. You can find special certificates with the season's logo in the Resource Library on www.firstinspires.org.

Applaud Your Supporters

Be sure your team recognizes the contributions of mentors, sponsors, volunteers, and your host site. The team can give a personal thank-you gift of a team or robot photograph, framed season certificate, or personal thank-you letters recognizing the special talents or contributions of each.

Host a Community Event

Your team can host a community tournament in the off-season and invite other teams in the area to attend. These events do not allow teams to qualify for your region's Championship tournament, but they are a great way for teams to demonstrate their talents and share their knowledge in a low-pressure environment. The children enjoy the opportunity to see what others have done and be recognized for their unique results.

Feel free to customize your local event to suit your team's needs and resources. Include special robot challenges, teamwork activities, mini projects, and other special components your team develops. Local events do not have to be expensive to host. Be creative. Encourage parents and guardians to become planning members for the event. Let participating teams know what they can expect and how to help.



“Graduate” to Other *FIRST* Programs

All *FIRST* LEGO League team members grow up eventually, so it is never too early to start thinking about the next step. The *FIRST* progression of programs spans from 6 years old through high school, so your team will have the opportunity to continue participating with *FIRST* even after they graduate from *FIRST* LEGO League.

You may want to consider attending a *FIRST*® Tech Challenge or *FIRST*® Robotics Competition event in your area. Many occur after the *FIRST* LEGO League tournament season, and they will give your team a great taste of the *FIRST* experience for older students.

To learn more about our programs, visit the *FIRST* website at www.firstinspires.org.



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www.firstinspires.org

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