This article provides recommendations from the Northwest Florida Regional Planning Team of what teams should expect during one season of FIRST® LEGO® League. It is intended to provide coaches with a high-level view of what their team needs to work on during the season. Remember, judging rubrics are not scoresheets, but guides for key criteria that reflect what is most important about the FIRST LEGO league experience and provide judges an area to record their feedback. The most important deliverable for any team is to HAVE FUN!

Core Values

During the season:

1. Coaches, students, mentors, and parents should learn the Core Values and the concepts of Gracious Professionalism and Coopertition.

2. Practice Core Values (integrate Core Values in all team activities and encourage all students to identify Core Values that they use at home, at school and other activities).
   a. Be prepared with examples of how your team has demonstrated Core Values during the season. Each member should be able to give examples.

3. Do specific Core Values activities and improve communication to promote better teamwork.

4. Develop a Team Identity and determine how your team will demonstrate team spirit (team chants, slogans, coordinating shirts or clothes, etc.).
   a. Be unique with your identity. Do something to set yourselves apart to be memorable. Every team has bright shirts and cheers, etc. Be different. Be bold. Team identity is not only a part of the rubric, but when judges deliberate, you want to be the team that judges are telling other judges about (for good reasons).

5. If possible, meet with / mentor / collaborate with another team or an FLL Jr. team.
6. Review the core values section of the Judging Rubric and be prepared to answer specific questions of how each team member uses Core Values in their everyday life.

Take to the event:

1. Gracious Professionalism
2. Optional: swag to share with other teams (buttons, pencils, stickers, patches, or cute homemade trinket).
   a. Swag is a tradition amongst teams at all levels of FIRST. However, giving away swag is an added expense for your team and is therefore not required. Feel free to get creative though because you don’t have to spend a lot! This can also be a creative, engaging way to include parents and mentors of the team.
3. Team spirit/cheering items (as needed).
4. Pit decorations (not required, but can help showcase team identity).
5. Banner / flag.

Project

During the season:

1. **RESEARCH**: Learn about this year’s challenge.
2. **RESEARCH**: Clearly define and state the problem that your team is studying to solve and what is the proposed solution.
   a. Ensure your team is able to identify the problem and the solution in one sentence.
3. **RESEARCH**: Use local resources, experts, and data to research and identify a problem that is relevant to this year’s challenge.
   a. Cite your sources.
4. **RESEARCH**: Depth to which the problem was studied and analyzed by the team, including the extent of analysis and existing solutions.
   a. What solutions currently exist?
   b. Are those solutions effective? Why or why not?
5. **INNOVATIVE SOLUTION**: Develop a clear explanation of the proposed solution and a description of how it solves the problem.

*Adapted from FLL Tutorials and EV3 Lessons*
a. What is the solution to this year’s problem and how will it fix your identified problem?

6. **INNOVATIVE SOLUTION:** Develop a solution that makes life better by improving existing options, or developing a new application of existing ideas or solving the problem in a new way.
   a. How is the team’s solution different from what already exists?
   b. Has it been built on existing ideas?
   c. How is it better than what already exists?
   d. How can you improve the quality of [x] by using your proposed solution?
   e. Teams may want to use Tinker CAD, Google Drawing, SketchUp, or LEGO Digital Designer to brainstorm and design proposed prototypes.

7. **INNOVATIVE SOLUTION:** Document the process used to select, develop, evaluate, test and improve the solution.
   a. Consider cost, ease of manufacturing, etc. (think of a proposed business plan)
   b. Who are your customers, competitors?
   c. How will you advertise this solution?
   d. How will you make this solution happen?

8. **PRESENTATION:** The degree to which the team shared their project before the tournament with who might benefit from the team’s efforts.
   a. Did you share on social media, with experts, your community, and fellow FIRST LEGO League teams?

9. **PRESENTATION:** Develop a 5-minute or less creative presentation that is imaginative, informative, and engages judges. Make sure to use your imagination while developing your presentation to the judges.

10. **PRESENTATION:** Make sure your team’s message delivery and organization of the presentation is easily understood by the judges.
    a. Review the Innovation Project section of the Judging rubric.

Take to event:

1. Project poster board (not required for judging rooms in the NW Florida Region, but highly recommended as teams conduct outreach).

*Adapted from FLL Tutorials and EV3 Lessons*
2. Team project summary to leave with the judges (highly encouraged, but not required).
3. Props / scripts / presentation materials (as needed by teams).
4. Solution prototype (highly encouraged for project judging rooms).
5. Be prepared to answer relevant questions from judges regarding your team's project.

Robot Design and Robot Game

During the season:

1. Maintain an engineering notebook – the story of our robot (This is highly recommended, but not required for the NW Florida Region).
2. Review the Robot Design section of the Judging Rubric and create a Robot Design Executive Summary (RDES) (required for the NW Florida Region).
   a. Teams are highly encouraged to develop a 4-minute presentation guided by the RDES.
      i. You may find our RDES worksheet helpful.
   b. Some questions that your team may want to consider:
      i. How does the game board shape our solutions?
      ii. How did your team develop and modify their robot game strategy based on its performance?
      iii. Why did your team to start with a specific mission and end with a different mission?
3. Teams are highly encouraged to practice their robot runs in 2 ½ - minute, competition-style / intervals.

Take to the event:

1. Code to share (printed or on computer) with the Robot Design Judges.
2. Robot / attachments / charger / download cable.
3. Computer / power supply (have mission model build instructions on computer).

Adapted from FLL Tutorials and EV3 Lessons
Event Checklist

Needed:
- Team Roster / Signed Consent and Release
  A printed copy of your FIRST Roster that indicates that all parents or guardians of every student participate have digitally signed the Consent and Release Agreement form or, if a student on your roster does not have a check mark, a paper copy of the Consent and Release Agreement form is required for that student.
- Copies of the Team Information Sheet for each judging room (4 total)
- Prepared Robot Design Executive Summary (RDES)
- Team’s programmed robot and necessary attachments
  - Robot charger
  - Robot USB programming cable
- Print out of Robot Game programs by run or bring your laptop with all robot programs
- Laptop and charger
- Project Presentation props/supplies (if applicable)
- CITY SHAPER Mission 11 Innovative Architecture Structure (if applicable to your team’s robot game)
- Team SWAG / Team Spirit

Recommended:
- Bring your social skills - go talk to other teams and make new friends
- Team Sign or Banner
- Extra LEGO pieces
- Core Values Visual Aide(s)
- Name Badges for each student
- Project Prototype (if CITY SHAPER Mission 11 is not used)
- Video Camera (for the Historian to record the team’s project presentation)
- Power Strip / Extension cord
- Cell phone charger
- Extra batteries for robot
- USB Flash Drive with a backup of robot programs
- Money for concessions or merchandise

Confirm whether to bring:
- Snacks / Drinks for the team

Optional:
- Pens / paper / tape / scissors / clipboard
- Labels with your team number to ensure the safety of your items
- Printed Challenge document
- Have photographs of robot and attachments in case of damage along the way

What NOT to bring:
- Nuts (be allergy / dietary restriction conscious)
- Your team’s LEGO table, mat, and models
- Consult with your tournament director before bringing candy to hand out to other teams.

Adapted from FLL Tutorials and EV3 Lessons