

2018-2019 FIRST LEGO League Season

Welcome  
to  
Kickoff!

**Kelly Goodner**

FIRST LEGO League Manager

**Perot Museum of Nature and Science**

kelly.goodner@perotmuseum.org

P 214.756.5853

# FIRST LEGO League (FLL)

## Who's Doing What

- FIRST

# FIRST LEGO League (FLL)

## Who's Doing What

- FIRST
- LEGO

# FIRST LEGO League (FLL)

## Who's Doing What

- FIRST
- LEGO
- Perot Museum of Nature and Science

# FIRST LEGO League (FLL)

The screenshot shows a web browser window with the URL <https://www.perotmuseum.org/educators/first-lego/index.html>. The page header features the Perot Museum of Nature and Science logo, today's hours (10am-5pm), a 'DONATE' button, and a 'GET TICKETS' button. A navigation menu includes 'Visitor Information', 'Exhibits + Films', 'Programs + Events', 'Join + Give', 'Educators', 'Members', and 'Researchers'. The main content area has a large banner image of a crowd of children and adults at a robotics event. The banner text reads 'THE WORLD OF ROBOTICS' and 'FIRST® LEGO® LEAGUE'. Below the banner is a horizontal menu with 'Challenge', 'Qualifier Sites', 'Events', and 'Volunteer'. The main text below the menu reads: 'The Perot Museum is proud to serve as the North Texas affiliate of FIRST LEGO® League –'.

# FIRST LEGO League (FLL)

## FLL Season

- Clinics
- Scrimmages
- First Round Qualifiers
  - December 1<sup>st</sup>
  - December 8<sup>th</sup>
  - December 15<sup>th</sup>
- Second Round Qualifiers
  - Dates to be announced
- Regional Championship
  - February 9<sup>th</sup> at Parish Episcopal School

# FIRST LEGO League (FLL)

## Qualifier Registration

- Registration opens on Oct. 24<sup>th</sup> at 10:00am



# FIRST LEGO League (FLL)

## Qualifier Registration

- Registration opens on Oct. 24<sup>th</sup> at 10:00am
- Registration link on the Perot Museum Website
  - Information will be sent to coaches prior to this date

# FIRST LEGO League (FLL)

## Qualifier Registration

- Registration opens on Oct. 24<sup>th</sup> at 10:00am
- Registration link on the Perot Museum Website
  - Information will be sent to coaches prior to this date
- Registration for qualifier sites is first come, first serve
  - You are not fully registered until payment is received.

# FIRST LEGO League (FLL)

## Qualifier Registration

- Registration opens on Oct. 24<sup>th</sup> at 10:00am
- Registration link on the Perot Museum Website
  - Information will be sent to coaches prior to this date
- Registration for qualifier sites is first come, first serve
  - You are not fully registered until payment is received.
- If paying by check or PO please call the Museum's reservation line
  - **(214) 428-5555 (press 8)**

# FIRST LEGO League (FLL)

## Qualifier Registration

- Registration opens on Oct. 24<sup>th</sup> at 10:00am
- Registration link on the Perot Museum Website
  - Information will be sent to coaches prior to this date
- Registration for qualifier sites is first come, first serve
  - You are not fully registered until payment is received.
- If paying by check or PO please call the Museum's reservation line
  - (214) 428-5555 (press 8)
- Registration and payment must be completed and received by November 17<sup>th</sup>

# FIRST LEGO League (FLL)

## Competitions

- 3 Judged Categories
  - Robot Design
    - Robot Design Executive Summary

# FIRST LEGO League (FLL)



## Robot Design Executive Summary (RDES)

To help the Robot Design Judges quickly and consistently learn about your robot and the design process used, we are requiring a short presentation. An "executive summary" is often used by engineers to briefly outline the key elements of a product or project. In other words, the purpose of the RDES is to give the Robot Design Judges an outline of your robot and all that it can do. The RDES is intended to help your team consider in advance the most important information to share with the Judges. What you chose to share will enable the Judges to effectively evaluate your team and provide more helpful feedback.

Your team is free to determine how much time you invest, but realistically it should only take a few hours to develop and practice the RDES. The RDES is NOT intended to be as extensive or time consuming as your Project.

Your team will present your RDES at the beginning of your Robot Design judging session. The entire presentation, including the trial run, should not take any longer than **four (4) minutes**. Following your Robot Design presentation the Judges will pose questions for your team to answer. You are not required to provide a written version of the RDES to leave with the Judges.

**Basic Outline:** The RDES should include the following elements: *Robot Facts*, *Design Details*, and a short *Trial Run*.

**Robot Facts:** Share with the Judges a little bit about your robot, such as the number and type of sensors, drivetrain details, number of parts, and the number of attachments. The Judges would also like to know what programming language you used, the number of programs and the amount of memory used by each program, and your most consistently completed mission.

### Design Details:

1. **Fun:** Describe the most fun or interesting part of robot design as well as the most challenging parts. If your robot has a name, who chose the name and why. If your team has a fun story about your robot please feel free to share.
2. **Strategy:** Explain your team's strategy and reasoning for choosing and accomplishing missions. Talk a little bit about how successful your robot was in completing the missions that you chose. Judges may like to hear about your favorite mission and why it is your favorite.
3. **Design Process:** Describe how your team designed your robot and what process you used to make improvements to your design over time. Briefly share how different team members contributed to the design and how you incorporated all the ideas.
4. **Mechanical Design:** Explain to the Judges your robot's basic structure, how you make sure your robot is durable and how you made it easy to repair or add/remove attachments. Explain to the Judges how the robot moves (drivetrain), and what attachments and mechanisms it uses to operate or complete missions.
5. **Programming:** Describe how you programmed your robot to ensure consistent results. Explain how you organized and documented your programs, as well as, mention if your programs use sensors to know (and ensure) the location of the robot on the field.
6. **Innovation:** Describe any features of your robot design that you feel are special, different or especially clever.

**Trial Run:** If a Robot Game table is available, demonstrate the operation of your robot for the Judges performing the mission(s) of your choice. Please do not do an entire robot round; time will be needed for Judges to ask questions of your team.

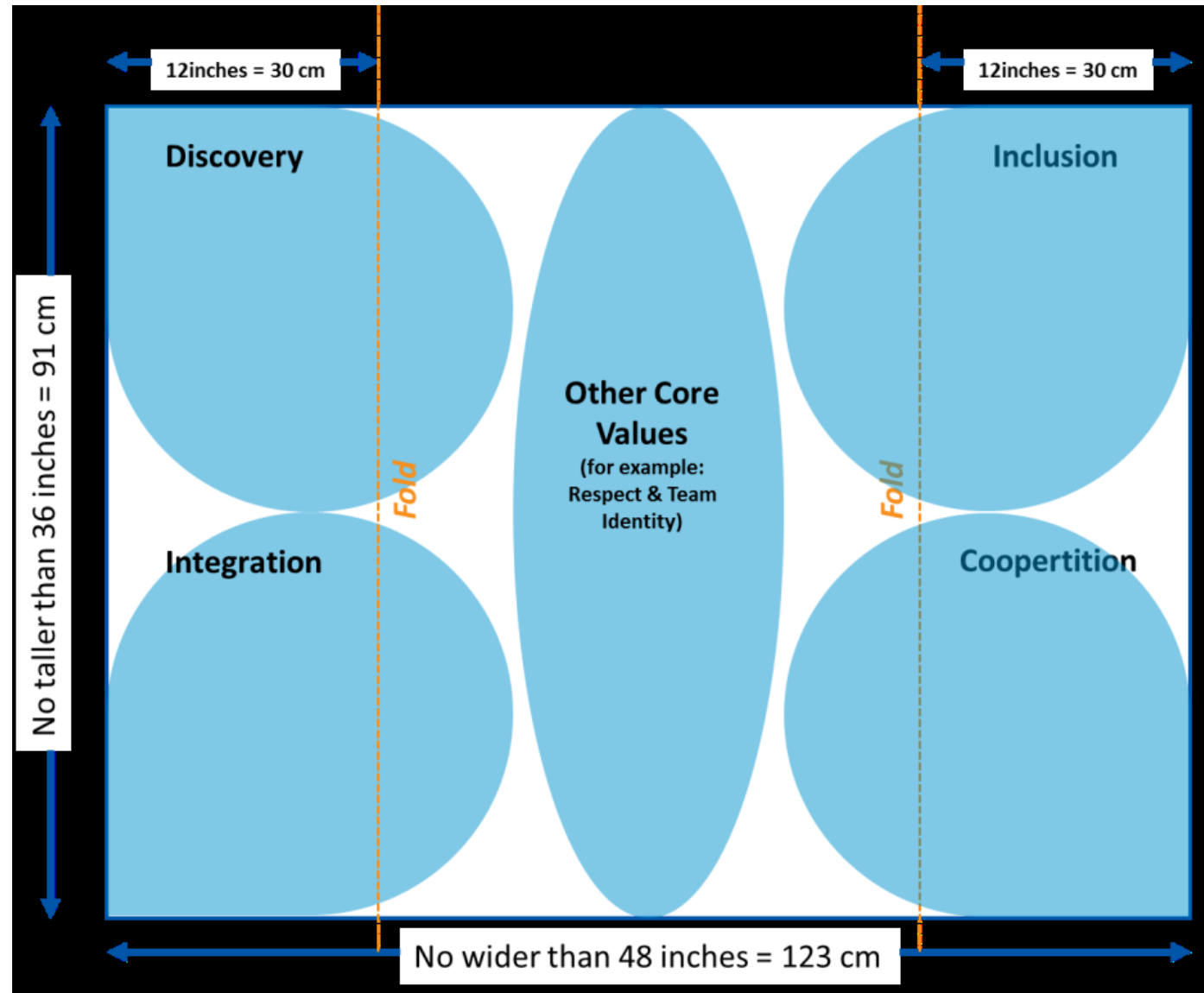
# FIRST LEGO League (FLL)

## Competitions

- 3 Judged Categories
  - Robot Design
    - Robot Design Executive Summary
  - Core Values
    - Core Values Poster

# FIRST LEGO League (FLL)

## Core Values Poster





# FIRST LEGO League (FLL)

## Competitions

- 3 Judged Categories
  - Robot Design
    - Robot Design Executive Summary
  - Core Values
    - Core Values Poster
  - Project
    - Identify a physical or social problem faced by humans during long duration space exploration within our Sun's solar system and propose a solution.

# FIRST LEGO League (FLL)

## Competitions

- 3 Judged Categories
  - Robot Design
    - Robot Design Executive Summary
  - Core Values
    - Core Values Poster
  - Project
    - Identify a physical or social problem faced by humans during long duration space exploration within our Sun's solar system and propose a solution.
- Robot Game
  - Identify one or more Missions to solve and design a robot using LEGO MINDSTORMS that can solve the Missions .

# FIRST LEGO League (FLL)

## Information and Resources

### Official Websites

<https://www.firstinspires.org/robotics/fll>

<https://www.perotmuseum.org/educators/first-lego/index.html>

### Community Resources

<https://roboplex.org/>

<https://groups.google.com/forum/#!forum/northtexasfll>

Kelly Goodner

kelly.goodner@perotmuseum.org

P 214.756.5853