

# FIRST LEGO League Judging Helper—ROBOT DESIGN

Room # \_\_\_\_\_ Judges: \_\_\_\_\_

**Instructions:** Fill in the table for each team you see (details for top 2-4 teams). This will be helpful when rooms merge lists at the end of the day. You'll be expected to know about each of the areas on the sheet for top teams. If a team doesn't discuss something in the presentation, ask them about it.

Team #:							
Robot Design rank							
<b>Sturdiness</b> – can withstand rigor							
<b>Enhancement</b> – Improvement or new version of existing design							
<b>Efficiency</b> – Effective vs. excessive parts							
<b>Sensors</b> – Which ones, how many, and for what?							
<b>Programing</b> – myBlocks, loops, switches, etc.							
<b>Programming Comments</b> – Present and relevant							
<b>Strategy</b> – Process, etc.							
<b>Innovation</b> – Unique features							
<b>Strength(s)</b> — Mech. Design, Programming, Strat./Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation	<input type="checkbox"/> Mech. Design <input type="checkbox"/> Programming <input type="checkbox"/> Strategy & Innovation

## Sample questions & helpful hints

Category	Look for...	Sample questions
<b>Sturdiness</b> – can withstand rigor	Does the robot appear to withstand normal operating wear during an event?	When or how often do you need to repair your robot? What types of things cause the robot to break?
<b>Enhancement</b> – Improvement or new version of existing design	Team explains the basis for their design and how they arrived at the current iteration.	Where did you get inspiration for your design? How did you think of the design?
<b>Efficiency</b> – Effective vs. excessive parts	All or most parts have a clear purpose and are sufficient but not excessive to accomplish goals set out by team.	What is the purpose of _____ (for mechanisms with unclear purpose)? Are there any components of your robot which you do not use now?
<b>Sensors</b> – Which ones, how many, and for what?	Sensors are present and have a stated and documented purpose. There is an explained benefit to the team by using sensors.	Which sensors do you use and for what purpose? (If no sensors) Do you run into any problems without using sensors?
<b>Programming</b> – myBlocks, loops, switches, etc.	Programming is sophisticated but streamlined, has a variety of block types, and is well explained.	--
<b>Programming Comments</b> – Present and relevant	Comments are present throughout the programming and are helpful, serving a purpose.	--
<b>Strategy</b> – Process, etc.	Team has a well-documented process for their mission and building strategies.	How did you decide which missions to do?
<b>Innovation</b> – Unique features	Team has unique features not seen in most cases.	What is unique or different about your robot? What is something fun about your robot?