

# Evaluation Robot Design

FIRST LEGO League 2018/19

INTO ORBIT



Team Number \_\_\_\_\_

Team Name \_\_\_\_\_



Please mark only <u>one</u> field per row		exemplary	accomplished	developing	beginning
<b>Construction</b>	<b>Durability</b> evidence of structural integrity	proper construction; no repairs	rare faults/repairs	frequent or significant faults/repairs	quite fragile; breaks a lot
	<b>Mechanical Efficiency</b> economic use of parts and time		streamlined use of parts and time to repair/modify	appropriate use of parts and time to repair/modify	inefficient, excessive parts or time to repair/modify
	<b>Accuracy &amp; Speed</b> ability of robot mechanisms to move or act with appropriate speed and accuracy		appropriate balance of speed and accuracy on every task	appropriate balance of speed and accuracy on most tasks	imbalance of speed and accuracy on most tasks
	<b>Strength</b> ability of robot mechanisms to move or act with appropriate strength		Robot always interacts gently with models, objects and itself	Robot mostly interacts gently with models, objects and itself	Robot interacts roughly with models, objects and itself
<b>Programming</b>	<b>Quality</b> appropriate programs for the intended purpose	should achieve purpose every time	should achieve purpose repeatedly	would not achieve purpose OR would be inconsistent	would not achieve purpose AND would be inconsistent
	<b>Programm Efficiency</b> programs are modular, streamlined, and understandable		streamlined code and easy for anyone to understand	appropriate code and easy to understand	excessive, inefficient code and difficult to understand
	<b>Automation/Navigation</b> ability of the robot to move or act as intended using mechanical and/or sensor feedback		robot moves/acts as intended every time with no driver intervention	robot moves/acts as intended repeatedly; occasional driver intervention	frequent driver intervention OR retrieve robot
	<b>Sensor use</b> use and types of sensors		yes, varied	occasional use	no sensors
	<b>Subroutines/Loops/Variables</b>		meaningful use	used	no use
	<b>Simplicity</b> ability to solve missions easily		tasks easily solved	tasks solved with reasonable complexity	tasks solved with difficulty
<b>Strategy &amp; Innovation</b>	<b>Design Process</b> ability to develop and explain programming and mechanical design	systematic, well-explained and well-documented	systematic and well-explained	organization OR explanation need improvement	organization AND explanation need improvement
	<b>Mission Strategy</b> ability to clearly define and describe the team's game strategy		clear strategy to accomplish most/all game missions	clear strategy to accomplish the team's well defined goals	no clear goals OR no clear strategy
	<b>Innovation</b> creation of new, unique, or unexpected feature(s) (e.g. designs, programs, strategies or applications) that are beneficial		original feature(s) that add significant value	original feature(s) with the potential to add significant value	original feature(s) with no added value or potential
	<b>Design &amp; Look</b>		efficient & elegant	efficient	not mature
<b>Amount marks per column</b>					

<b>Comments Judges</b>	<b>Bonus Points (max. 5)</b> <input style="width: 80px; height: 30px;" type="text"/>
	<b>Proposal "Judge's Award"</b> <input style="width: 80px; height: 30px;" type="text"/>