



Robot Design

Team Number

FIRST® LEGO® League

Directions: 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. *When you have completed the evaluation, please circle the awards for which you would like this team to be considered.*

	Beginning	Developing	Accomplished	Exemplary
Mechanical Design	Durability Evidence of structural integrity; ability to withstand rigors of competition			
	N quite fragile; breaks a lot D	frequent or significant faults/repairs	rare faults/repairs	sound construction; no repairs
	Mechanical Efficiency Economic use of parts and time; easy to repair and modify			
	N excessive parts or time to repair/modify D	inefficient parts or time to repair/modify	appropriate use of parts and time to repair/modify	streamlined use of parts and time to repair/modify
Mechanization Ability of robot mechanisms to move or act with appropriate speed, strength and accuracy for intended tasks (propulsion and execution)				
N imbalance of speed, strength and accuracy on most tasks D	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	
Comments:				
Programming	Programming Quality Programs are appropriate for the intended purpose and would achieve consistent results, assuming no mechanical faults			
	N would not achieve purpose D 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 excessive code and difficult to understand D	inefficient code and challenge to understand	appropriate code and easy to understand	streamlined code and easy for anyone to understand
Automation/Navigation Ability of the robot to move or act as intended using mechanical and/or sensor feedback (with minimal reliance on driver intervention and/or program timing)				
N frequent driver intervention to aim AND retrieve robot D	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	
Comments:				
Strategy & Innovation	Design Process Ability to develop and explain improvement cycles where alternatives are considered and narrowed, selections tested, designs improved (applies to programming as well as mechanical design)			
	N disorganized AND poorly explained improvement cycles D	disorganized OR poorly explained improvement cycles	systematic and well-explained improvement cycles	systematic, well-explained and well-documented improvement cycles
	Mission Strategy Ability to clearly define and describe the team's game strategy			
	N no clear goals AND no clear strategy D	no clear goals OR no clear strategy	clear strategy to accomplish the team's well defined goals	clear strategy to accomplish most/all game missions
Innovation Creation of new, unique, or unexpected feature(s) (e.g. designs, programs, strategies or applications) that are beneficial in performing the specified tasks				
N original feature(s) with no added value or potential D	original feature(s) with some added value or potential	original feature(s) with the potential to add significant	original feature(s) that add significant value	
Comments:				
Awards Consideration:	Mechanical Design	Programming	Strategy & Innovation	