

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 team's areas of strength.*

	Beginning	Developing	Accomplished	Exemplary	
Research	Problem Identification * Clear definition of the problem being studied				
	N D	unclear; few details	partially clear; details missing	mostly clear; detailed	clear; very detailed
	Sources of Information Types (e.g. books, magazines, websites, reports and other resources) and number of quality sources cited, including professionals in the field				
	N D	one type of information cited; minimal sources	two types of information cited; several sources	three types of information cited; many sources, including professionals	four(+) types of information cited; extensive sources, incl. professionals
	Problem Analysis Depth to which the problem was studied and analyzed by the team				
	N D	minimal study; no team analysis	minimal study; some team analysis	sufficient study and analysis by team	extensive study and analysis by team
	Review Existing Solutions Extent to which existing solutions were analyzed by the team, Including an effort to verify the originality of the team's solution				
N D	minimal review; no team analysis	minimal review; some team analysis	sufficient review and analysis by team	extensive review and analysis by team	

Comments:

Innovative Solution	Team Solution * Clear explanation of the proposed solution				
	N D	difficult to understand	some parts confusing	understandable	easy to understand by all
	Innovation Degree to which the team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way				
	N D	existing solution/application	solution/application contains some original element(s)	original solution/application	original solution/application with the potential to add significant value
	Implementation Consideration of factors for implementation (cost, ease of manufacturing, etc.)				
N D	minimal factors considered	some factors considered	factors well considered; some question about proposed solution	factors well considered and feasible solution proposed	

Comments:

Presentation	Sharing * Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts				
	N D	shared with one individual	shared with one group	shared with one individual or group who may benefit	shared with multiple individuals or groups who may benefit
	Creativity Imagination used to develop and deliver the presentation				
	N D	minimally engaging OR unimaginative	engaging OR imaginative	engaging AND imaginative	very engaging AND exceptionally imaginative
	Presentation Effectiveness Message delivery and organization of the presentation				
N D	unclear OR disorganized	partially clear; minimal organization	mostly clear; mostly organized	clear AND well organized	

Comments:

Strengths:

Research

Innovative Solution

Presentation

*Required for Award Consideration

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Beginning		Developing		Accomplished		Exemplary	
Mechanical Design	Durability		Evidence of structural integrity; ability to withstand rigors of competition				
	N D	quite fragile; breaks a lot	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 D	excessive parts or time to repair/modify	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 D	imbalance of speed, strength and accuracy on most tasks	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 D	would not achieve purpose 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 D	excessive code and difficult to understand	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 D	frequent driver intervention to aim AND retrieve robot	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 D	organization AND explanation need improvement	organization OR explanation need improvement	systematic and well-explained	systematic, well-explained and well-documented
	Mission Strategy Ability to clearly define and describe the team's game strategy				
	N D	no clear goals AND no clear strategy	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 D	original feature(s) with no added value or potential	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:

Strengths:	Mechanical Design	Programming	Strategy & Innovation
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