

7. Judging Criteria for Open Category

Category	Criteria	Points	Score
1. Project (Total Points: 50)	1. Creativity & Quality of Solution - The project was unique and showed creative thinking. Project is well-thought out and has a realistic solution / design/ concept.	25	
	2. Research & Report - The team demonstrated that they researched their idea and was able to clearly report their findings	15	
	3. Entertainment Value - The project had a certain "WOW" factor, it made me want to see it again or learn more about it	10	
2. Programming (Total points: 45)	1. Automation - The project can perform on its own with little to no human intervention. The unit makes decisions based on appropriate use of sensors	15	
	2. Good Logic - The programming makes sense and flows with a good deal of logic based on input data from sensors	15	
	3. Complexity - The algorithm of the program has non trivial components of sequence, decision making, iteration, and hierarchical decomposition structures.	15	
3. Engineering Design (Total Points: 45)	1. Technical Understanding - The team explained clearly and knowledgeably how their project worked	15	
	2. Engineering Concepts - The project shows evidence that sound engineering concepts were used in the project	10	
	3. Mechanical Efficiency - The overall design of the project demonstrates a consideration for mechanical efficiency (i.e. proper use of gearing, means to reduce friction, economic and streamlined use of parts; easy to repair / modify, etc.)	10	
	4. Structural Stability - The project is sturdy and can be operated repeatedly without needing repairs	5	
	5. Aesthetics - The project is appealing to the eyes, it appears that the team went out of their way to make the project look as professional as possible	5	
4. Presentation (Total Points: 40)	1. Successful Demonstration - The project worked as expected, and could continue to do so with a certain degree of repeatability	15	
	2. Communication & Reasoning Skills - The students were able to explain what their project was about, how it works and WHY they decided to build it	10	
	3. Quick Thinking - Students are able to easily answer questions about their project	5	
	4. Posters and Decorations - The materials used to explain and teach others about their project are clear, concise and are neatly prepared	5	
	5. Project video	5	
5. Teamwork (Total Points: 20)	1. Unified Learning Outcome - The team was able to demonstrate that all members shared equally in the learning process	10	
	2. Inclusiveness - The team was able to demonstrate that all members played an important role in the construction and presentation of their project	5	
	3. Team Spirit - All team members showed enthusiasm and seemed excited to share their project with others	5	
Maximum Points		200	

***Projects that are clearly not within the theme will receive a score of 0.**

Judges are requested to score each category from 0 to 10 with 10 being maximum. A score of 9 to a criteria worth 25 points is equivalent to 22.5 points etc.