



GOING GREEN 2009 ROBOTICS COMPETITION INVENTIONS CHALLENGE APRIL 28, 2009

In the Inventions contest, teams will create and develop a unique robot that is designed to solve an existing problem of their choosing. Judging criteria will be based on design and complexity of the robot, creativity and originality, selection of the problem and a workable solution. A daily logbook should be kept that documents the team's progress and explains their thought process as they developed the invention. The team will also be judged on the marketing and presentation of the product.

Rules:

- The robot brought to the contest should have been built and programmed entirely by the student team.
- The team sponsor is allowed in the team area to help deliver and setup the display.
- Only students will be allowed in the team work area after initial set-up. (If a situation arises, such as laptop failure, then the parent or sponsor should inform a contest official and receive approval before entering the team work area.)
- Students must display name tag prominently.
- Each team should consist of 2 – 6 members.
- Each team will have a table to use if desired to conduct their presentation and will be limited to that space.
- Presentation time will be no less than 3 minutes and no more than 5 minutes.
- The robot is not limited to number of motors or sensors.
- The Judging Rubric will be used to score the competition.

Judging Rubric:

| CATEGORY | 0 Points | 1 - 3 Points | 4 – 7 Points | 8 – 10 Points |
|-----------------------------------|--|--|---|--|
| Complexity of Programming | No evidence of programming | Programming uses a simple design with few steps. | Program has evidence of several tasks, functions, and steps. | Program is complex and has numerous tasks, functions, and subroutines. |
| Construction Design | Poor design and construction. Unable to initiate task. | Weak design and construction. Able to partially complete the task. | Adequate design and fairly stable construction. Able to complete most elements of task. | Well thought out design and stable construction. Able to complete task. |
| Creativity and Originality | Uses existing ideas, no original thought. | There is little evidence of original thinking. | Invention shows some original thought. Work shows new ideas and insights. | Invention shows a large amount of original thought. Ideas and creative and inventive. |
| Selection of Problem and solution | No solution to the selected problem. | Partial solution to the selected problem. | Practical solution to a selected problem. | Unique and practical solution to a relevant or significant problem. |
| CATEGORY | 0 Points | 1 Point | 2 - 3 Points | 4 – 5 Points |
| Logbook | No logbook. | Incomplete description of activities in logbook. | Adequate description of activities in logbook demonstrating thought processes, development, and design. | Meticulous, detailed, and extensive description of activities in logbook demonstrating thought processes, development, and design. |
| Marketing | No marketing theme evident. | Loosely connected ideas to promote invention. | Focused theme or ideas in promoting the invention. | Creative theme or ideas in promoting the invention. |
| Presentation | Delivery not smooth and audience attention often lost. | Delivery not smooth, but able to maintain interest of the audience most of the time. | Rehearsed with fairly smooth delivery that holds audience attention most of the time. | Well-rehearsed with smooth delivery that holds audience attention. |