



DSBN Elementry Robolab Robotics CHALLENGE 2006

CHAIR: : Leonard Aylward

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PURPOSE OF THE CONTEST:

Co-ed teams of four students each from schools across Ontario will have an opportunity to compete with one another in a friendly environment to demonstrate their creative, collaborative and problem-solving skills in solving an open-ended challenge

EVENT DETAILS:

Date:

Time: 9:00 - 3:45

Location: Lakeport Secondary School

SKILLS AND KNOWLEDGE TO BE TESTED:

The Robotics Challenge will have a rubric scoring system based on points. Points are awarded as the robot successfully meets/completes certain performance criterion.

Overall team score will be the sum of the points awarded for each of the three events: the competition, the quiz and the poster contest.

Judges will oversee the three events of the competition plus the quiz and poster components of the competition.

Teams are expected to:

- neatly assemble a successful solution to the challenge within the time constraints

- demonstrate mathematical, scientific and technological knowledge

- demonstrate sound design, construction, and programming principles

- demonstrate an efficient use of materials

- demonstrate best practices in using materials, computer hardware and software

- model a collaborative distribution of tasks

- follow safe working practices, and

- organize and present an informative solution to the challenge

SAFETY REQUIREMENTS:

Competitors are required to follow all industry safety standards during the competition.

EQUIPMENT, MATERIALS, TOOLS AND SUPPLIES:

Equipment Supplied by the Contest Coordinator:

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organize and present an informative solution to the challenge

Equipment Supplied by the Competitor:

Teams are required to bring, and should be familiar with the use of the following systems, processes, and resources.

Lego Robolab or Mindstorms kit, including software suitable for Windows XP, batteries, Lego parts, etc. Kits should include at least three (3) motors and 1 light sensor.

Lego Robolab or Mindstorms construction and programming manuals, etc.

Digital Camera

disks to make backups of your programming solutions

extra sensors or motors might be required depending on the team's approach to the challenge

Kits for the robotics challenge can be ordered from Spectrum Ed.

Team Challenge Set 89793 (Serial COM port IR tower) or 89794 (USB IR tower)

9V gear reduction motor 85225 - \$22.99

Mindstorms For Schools Software 800621 (Single) - \$96.99 or

Mindstorms For Schools Software 800631 (Site License) - \$243.99

CLOTHING REQUIREMENTS:

Casual business attire must be worn with DSBN Technology shirts.

PROJECT AND COMPETITION EXPECTATIONS:

(Clearly outline the project requirements and expectations step-by-step)

JUDGING CRITERIA:

Task 75%

Test 10%

Poster 15%

Total 100%.

ENTRY:

Teachers should forward a list of competitors participating from their school to the contest coordinator 5 days prior to the date of the contest.

TRANSPORTATION:

Students are responsible for their own transportation.

TEACHER'S ROLE:

Instructors are expected to acquaint their student participants with all of the enclosed guidelines. Teachers may accompany their students or visit any time during the competition, but may not assist the competitors during the challenge.

SPECIAL INSTRUCTIONS OR GUIDELINES:

Any other details for the competition may be included here.

COMPETITION AGENDA:

(Outline the time schedule for the day of the competition, including any special notes)

8:30 registration

9:00 challenge

2:30 judging