



DSBN REGIONAL LEGO MECHANICS CHALLENGE 2008 ELEMENTARY LEVEL SCOPE

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PURPOSE OF THE CONTEST:

The design and engineering team will be given a situation (the challenge) and asked to submit a proposal, complete with a working prototype, design sketches and written documentation. The team must design and construct a working prototype of the solution and demonstrate its effectiveness. Each team will be asked to discuss features and mechanical devices used in the prototype. Each team will be asked to demonstrate their mechanical aptitude by completing a mechanism test.

EVENT DETAILS:

Date: Feb 21, 2008

Time: 9:00 -3:30

Location: Brock University

SKILLS AND KNOWLEDGE TO BE TESTED:

Assembly and manipulation of mechanical systems using lego/dacta. Team work. Various curriculum expectations from the Ontario Science and Technology document. Special emphasis on **gears** and **pulley systems** and **mechanical advantage**.

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: Dacta 9630 kits, Dacta 1032 kits, various lego elements

Equipment Supplied by the Competitor:
none

CLOTHING REQUIREMENTS:

Casual school attire must be worn.



PROJECT AND COMPETITION EXPECTATIONS:

The project will be completed on site and completed that day. Projects will be tested and evaluated at the end of the build time.

JUDGING CRITERIA: Performance of prototype criteria will be given at the time of the competition, completion of the mechanism test and brief presentation of prototype explaining the mechanical processes involved including hand drawings and prototype name.

ENTRY:

Teachers should register each student on their team using the DSBN Technology web site (www.dsbntech.on.ca/teched) and forward a list of competitors participating from their school and the teacher involved to the contest coordinator. Complete online registration information and submission of the signed Parent/Guardian consent form for each student is required before registration is complete.

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.