

DESIGN²⁰⁰⁸ COMPETITION

Mousetrap Vehicle Design Challenge



Maseeh College of Engineering
and Computer Science

Mousetrap Vehicle Design Challenge

Vehicle Performance – Teams will research, design, build, test and launch a spring-powered vehicle. The performance of the high school vehicle will be judged in three tasks:

- a. Fastest time over 10 meters (speed)
- b. Nearest stop to 5 meter target (accuracy)

*The middle school vehicle will be judged on the first task only.

Objective

Students will build **ONE** vehicle, powered by a single, standard sized mousetrap, designed to perform the following tasks:

Middle or Junior High School	High School
(1) Speed - Travel 10 meters in the shortest time	(1) Speed - Travel 10 meters in the shortest time (2) (Optional) Accuracy - Stop the shortest distance from a 5 meter finish point

Materials

One standard sized mousetrap

All other materials to build the vehicle are legal and optional.

Standard safety practices including the use of protective eyewear must be observed

Rules

- Students must design and build their own vehicle which must be solely powered by the mousetrap and activated by tripping the original mousetrap trip mechanism
- **NO** other energy source may be added (e.g. CO₂ cartridge, batteries, elastic strings, rubber bands, etc.)
- The standard mousetrap must be mounted to the chassis
- Hardware may be added to the mousetrap, but the original hardware and mounting block may **ONLY** be altered to attach it to the vehicle. The mousetrap may not be disassembled and then reassembled
- The springs on the mousetrap may not be cut, bent, over-wound, heat treated, or altered in any other manner
- Parts may **NOT** be removed or added between trials or tasks. Repairs are allowed, replacement parts and materials only, new parts may not be added.

