

MOUSETRAP CAR CHALLENGE:

Your goal is to build a vehicle powered solely by the energy of one standard-sized mousetrap that will travel the fastest, farthest, and a minimum of 10 linear feet.

Most materials are available to you to construct a successful Mousetrap Car. However, you are more than welcome to use other materials as long as you comply with the basic regulations stated below.

PROJECT RULES:

- 1. The device must be powered by a single standard size mousetrap. (No Rat Traps.)**
- 2. The mousetrap can not be physically altered except for the following: four holes can be drilled only to mount the mousetrap to the frame and a mousetrap's spring can be removed only to adjust the length of its lever arm.**
- 3. The device cannot have any additional potential or kinetic energy at the start other than what can be stored in the mousetrap's spring itself. (This also means that you cannot push start your vehicle.)**
- 4. The spring from the mousetrap cannot be altered or heat-treated.**
- 5. The spring cannot be wound more than its normal travel distance or 180 degrees.**
- 6. Vehicles must be self-starting. Vehicles may not receive a push in the forward direction or side direction.**
- 7. The vehicle must steer itself. Measurements of distance will not measure the total distance traveled only the displacement distance.**
- 8. Distance will be measured from the front of the tape at the starting line to the point of the vehicle that was closest to the start line at the time of release.**
- 9. All cars must achieve a minimum of 10 feet.**
- 10. This project is to be completed during class time by yourself, or with a partner if you prefer. You may work on some of this project at home, however, five days of class time have been set aside for the construction/testing of the mousetrap car. Each day is worth 8 points for a total of 40 points. (Subject to change based on how much time we have!)**

