

MPV Distance Challenge

OBJECTIVE:

Build a vehicle powered solely by the energy of one standard-sized mousetrap, (1 3/4" X 3 7/8"), that will travel the greatest linear distance.

By definition, a vehicle is a device with wheels or runners used to carry something, (e.g., car, bus, bicycle or sled). Therefore, launching a ball, (e.g., marble) from the mousetrap will be ruled illegal.

REGULATIONS:

1. A single mousetrap must power the device. (1 3/4" X 3 7/8")
2. The mousetrap can not be physically altered except for the following: 4 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. The instructor has the final decision as to the appropriateness of any additional items that might be used in the construction of the racer.

RUNNING THE CONTEST:

1. The racetrack can be any smooth level floor, a gymnasium or a non-carpeted hallway.
2. Each contestant will be given three attempts. The winner will be that racer which has obtained the greatest distance on any one of the three attempts. Any ties will be decided by a single run off between the racers, which tied.