

# Rat Trap Racer Project – 2004/05



**GOAL:** To build a “vehicle” using a single rat trap as the only power source.

## I. Teams

Each team will consist of two individuals.

## II. Rules

- 1) The Rat trap is your only source of power. No other springs, rubber bands, etc...  
(Rat traps are very dangerous so please **BE EXTREMELY CAREFUL!!!**)
- 2) The rat trap must be kept intact. No cutting, drilling or nailing. Glue/tape can be used to attach parts.
- 3) The vehicle must have wheels and remain in contact with the ground at all times.
- 4) All entries are subject to a safety check. Any entries deemed “unsafe” will be disqualified.
- 5) All entries are allowed only 2 runs as part of the project. The traveled distance will be measured from the starting line forward to where the vehicle stops or hits the wall.
- 6) The starting line will be at the doors by Mr. Hughes room.
- 7) The design must fit into a 12” X 12” X 24” box.
- 8) No commercially built cars may be entered, although materials commonly available may be used in the construction of the vehicle. If there is any question as to the validity of an entry, I will have the final say.

## III. Suggestions

- 1) Make sure the wheels are straight and move easily.
- 2) If the vehicle is too heavy, it will not move. If it is too light, it will not go in a straight line.
- 3) Check out last year’s vehicles on the website.
- 3) Try your idea at home or in the hallway after school before race day.

## IV. Grading

The design and testing of your vehicle will be part of your lab grade and worth 50 pts. The written report will be part of your homework grade and worth 20 points.

Design	10 pts
Distance traveled	1 pt for each foot traveled
Project Report	20 pts

Extra Credit will be awarded for the farthest, fastest and most originally designed vehicles.

The project report shall contain your construction method, results, improvements, problems, and the applications of Physics that are being used in designing this Rat Trap Racer.

**Good luck and have fun, but be SAFE!!!!!!**