



# MESA DAY CONTEST RULES 2001-2002

## Mousetrap Car

<b>LEVEL:</b>	Middle/Junior High School
<b>TYPE OF CONTEST:</b>	Individual/Team
<b>COMPOSITION OF TEAM:</b>	1 - 2 students per team
<b>NUMBER OF TEAMS:</b>	5 teams per Center
<b>SPONSOR:</b>	Robert Heredia, Academic Coordinator, San Diego State University MSP Center

**OVERVIEW:** Students will build a car, powered by a standard size mousetrap, which will travel the longest distance.

**MATERIALS:** One standard mousetrap is to be used. All other materials to build the car are legal and optional. Standard safety practices must be observed.

### **RULES:**

- 1) The Mousetrap Car must be initially powered by the mousetrap mechanism.
- 2) The initial energy may be transferred to another device **ONLY** if that device does not produce energy by itself.
- 3) **NO** other energy source may be added (e.g. CO<sub>2</sub> cartridge, batteries, elastic strings, rubber bands, etc.).
- 4) The standard mousetrap must be permanently mounted to the chassis (you can add, but you cannot delete or move original parts).
- 5) Each car will use only one standard size mousetrap.
- 6) The distance that a car travels will be measured according to the distance the rear wheels travel from the starting line to the furthest point. If the car rolls forward then backwards, the furthest point the car has traveled will still be measured. If any wheel leaves the side of the track, the distance is measured from the starting line to the rear wheel nearest the starting line at the point the car left the track.
- 7) Each car will be allowed 2 runs, 1 run in each round. Everyone will run their Mousetrap Car once during round one and once during round two. Students will be assigned a random number to determine the run order. The greater distance of the two runs will be the recorded distance.
- 8) Students must design and build their **own** Mousetrap Cars.

- 9) Each car must be ready for competition when called.
- 10) The Mousetrap Car shall be in a ready, stationary, “hands-off” position prior to the start order from the judge. At this point, the student shall indicate to the judge that the car is in the ready position. If the car moves before the judges say, “Go,” the judges will declare a “false start.” Only one false start is allowed per run in the competition. More than one false start disqualifies the car for that run.
- 11) Cars must roll or glide along the track. All wheels must stay in contact with the track at all times.
- 12) No tarpaper or any other material to induce friction is to be used on the track.
- 13) No part of the car may be attached to any part of the track.
- 14) Once the lever has been tripped, no one may touch or otherwise interfere with the car.
- 15) **Track Specifications:**
  - The track should be 6 ft. wide depending on the facility at the Host Center.
  - The suggested minimum of 75 ft is recommended for the track length.
  - The track should be “caution taped” to keep track clear.

#### **JUDGING:**

- 1) Judges will initial cars at the specification check. The same car must be used for both trials. Cars may be repaired or modified between trials for that car. Runs will be **nonconsecutive**.

**AWARDS:** Awards will be given for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place in the following categories:

- 1) **Creativity of Design**
- 2) **Mechanical Design**
- 3) **Distance Traveled**

\* At Preliminary MESA Day, medals will be awarded in all categories. Only the winners in the Distance Traveled category shall advance to Regional MESA Day. Contingent upon available space and security, cars that win most creative or best mechanical design at Preliminary MESA Day will be displayed at Regional MESA Day. This determination will be made by the Host Center.

**ATTACHMENTS:** Official Entry Form

**OFFICIAL ENTRY FORM FOR MOUSETRAP CAR CONTEST**  
Middle/Junior High School

**Student(s)** \_\_\_\_\_ **Car #** \_\_\_\_\_

**School** \_\_\_\_\_

**MESA Center** \_\_\_\_\_

**For Judges' Use Only**

	Poor										Very Good
Creativity of Design	1	2	3	4	5	6	7	8	9	10	

Mechanical Design	1	2	3	4	5	6	7	8	9	10
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Distance Traveled: Trial 1 \_\_\_\_\_ Trial 2 \_\_\_\_\_

Creativity Notes: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Mechanical Design Notes: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Comments/Judge's Notes: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Judges' Names: \_\_\_\_\_

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