# MOUSE TRAP VEHICLE-Speed CONTEST REGULATIONS

## I. Purpose:

To evaluate each contestant's ability to problem solve by designing, constructing and racing a vehicle powered by a mousetrap.

### **II.** Clothing Requirements:

SkillsUSA or appropriate conference attire. Your school name should not appear on any clothing.

## III. Eligibility:

Any SkillsUSA Nebraska member who qualifies for SkillsUSA Nebraska Leadership & Skills Conference.

## **IV.** Scope of the Contest:

Vehicle Design and Construction

- A. The vehicle must be powered by one standard household mousetrap. Additional springs, rubber bands, etc. will not be allowed (in the power apparatus). The base of the mousetrap cannot be cut or altered although a reasonable number of small holes can be drilled for mounting purposes only. The center "cheese holder" and arm retainer piece can be removed. The trap arm can be extended and/or bent.
- B. The mousetrap must travel with the vehicle.
- C. The frame, wheels, and axles may be made from any material. These parts have no size or weight restrictions other than to fit on the track.

**NOTE:** Wheels must be made from materials the student has designed or put together. Commercially made wheels will not be accepted. Various materials and everyday products such as paper, wood, cardboard, can lids, balls, etc. can be used.

- D. The vehicle must be able to travel a 20 inch wide by 12 foot long track. The vehicle cannot be more than 16 inches long and 16 inches tall in its starting configuration.
- E. If at any point a vehicle is determined to be in violation of one of these rules that vehicle will be disqualified from the competition.

#### V. Race Rules

- A. Cars will be lined up and inspected for Design and Construction requirements listed above. The cars which meet these requirements will advance to the track.
- B. Each car will make one run on the track and the time will determine their seed. The contestant will be allowed three attempts to establish a time. The time will be established from the first complete run. Each vehicle will begin with the front wheels behind the starting line. Time will stop when the front wheels cross the finish line.
- C. The fastest car will be determined by a double elimination tournament. The top seeded car will have the choice of lanes.
- D. The race officials will call false starts and tie finishes. The run will be repeated.
- E. A pit area will be provided but please bring your own tools.
- F. Contestants will be given time to prepare their cars for the race. Racers will be called to the track in the following order. Racers (car numbers) are UP. Racers (car number) are on DECK. Racers (car number) are IN THE HOLE. The cars that are UP position, race, and all other cars advance.
- G. These cars by nature are fragile, therefore, should a car need a minor repair (such as a string snap at the starting line) a reasonable amount of time will be allowed for the repair. Other cars in the bracket may continue their races. The repaired car race will be run at the end of the bracket.
- H. Contestants may make practice runs before the contest starts if they wish. No practice runs will be allowed after the car is checked in.
- I. The race officials will make every reasonable effort to maintain a clean and flat race track.
  - 1. The track will be set up to ensure that the seam located at the mid-point of the track is smooth in both lanes and will not hinder the operations of the race cars.
  - 2. The track will be wiped clean of all dirt and debris. The track will be wiped again after the practice runs are completed and before the competition begins. Waxes or oil-based cleaners should not be used.

#### VI. Scoring

The winner is determined by double elimination.