

# MOUSETRAP VEHICLE (CONT.)

See General Rules, Eye Protection & other Policies on [www.soinc.org](http://www.soinc.org) as they apply to every event.

- e. Teams may adjust their vehicle (e.g. change mousetraps, distance, directional control) within their 8 minutes, **though the Event Supervisor may re-verify that the vehicle meets specifications prior to each run. Timing is paused during any measurements made by the Event Supervisor.** Timing resumes once the participants pick up their vehicle or begin making their own measurements. Teams may use their own non-electric/electronic measuring devices to verify the track dimensions during their 8 minutes.
  - f. Teams must not roll the vehicle on the floor of the track on the day of the event without tournament permission. If permitted, only participants may be present.
  - g. Substances applied to the vehicle must be approved by the Event Supervisor prior to use, must not damage or leave residue on the floor, track and/or event area. During their 8-minute time, teams may clean the track but it must remain dry.
  - h. Participants must start the vehicle using any part of an unsharpened #2 pencil with an unused eraser, supplied by the Event Supervisor, **in a motion approximately perpendicular to the floor**, to actuate a trigger. They may not touch the vehicle to start it, hold it while actuating the trigger, or “push” the vehicle to get it started. Once the run starts, participants must not follow the vehicle until called by the Event Supervisor.
  - i. A Failed Run occurs **for any run that** does not occur in the 8 minutes or if the time or distance cannot be measured for a vehicle (e.g., the run starts before the event supervisor is ready, the participants pick it up before it is measured, **the vehicle runs backward at the start of its run**). **The vehicle failing to reverse direction does not result in a Failed Run or a violation.**
  - j. If the vehicle does not move upon actuation, it does not count as a run and the team may set up for another run but will not be given additional time.
  - k. A team filing an appeal must leave their vehicle in the competition area.
6. **THE TRACK:**
- a. **A track needs a minimum width of 2.0 m** on a smooth, level, and hard surface. **There is no maximum width.** A diagram of the track can be found on the event page at [www.soinc.org](http://www.soinc.org).
  - b. **The Start Point (SP), Cup Target Point (CTP), and Vehicle Target Point (VTP) will be marked on tape approximately 2.5 cm wide and approximately 5.0 cm long. The CTP will be 8.00 m from the SP.**
  - c. **The VTP will be between the SP and the CTP.**
    - i. **The centerline distance (along the imaginary line connecting the SP and CTP) between the VTP and CTP, will be in intervals of 0.10 m in these ranges: Regional - 1.00 to 2.00 m, State - 2.00 to 4.00 m, National - 4.00 to 6.00 m.** The centerline distance will be chosen by the Event Supervisor and announced after the impound period.
    - ii. **The VTP will be offset to the right side of the imaginary center line when facing the CTP by the following distances: Regional - 0.10 m, State - 0.25 m, National - 0.50 m.**
  - d. The event supervisor is encouraged to use three timers. The middle time of the 3 timers must be the official Run Time. The Run Time must be recorded in seconds to the precision of the timing devices.
  - e. At the event supervisor’s discretion, more than one track may be used. If so, the team may choose which track they use, but must use the same track for both runs.
7. **SCORING:**
- a. The Lowest Final Score wins. The lower of the 2 Run Scores is the Final Score.
  - b. Run Score for each run = Vehicle Distance + 2 x Cup Distance + Run Time (in sec) + Penalties.
  - c. Vehicle Distance = the point-to-point distance, in cm to the nearest 0.1 cm, from the VTP to the **front bottom edge** of the dowel.
  - d. Cup Distance = the **point-to-point distance, in cm to the nearest 0.1 cm, from the CTP to the closest part of the cup. If the cup covers the CTP, the Cup Distance is 0.0 cm.** If the cup tips over during a run, measurement is made from where the cup comes to rest.
  - e. Run Time starts when the vehicle begins to move and ends when the vehicle comes to a complete stop; recoils are considered part of the Run Time. If the vehicle does not move within 3 seconds after coming to a stop, the run is considered to have ended; the 3 seconds are not included in the Run Time. Any action occurring after that time does not count as part of the run.
  - f. Teams with incomplete practice logs will incur a Penalty of 250 points.
  - g. Teams without impounded practice logs will incur a Penalty of 500 points.