



MOUSETRAP VEHICLE C – 2019

Rank:	_____
Final Score:	_____

Team Number: C _____ Team Name: _____

Student Names: _____

2.a. A single vehicle, a practice log, and any additional/spare parts are impounded before the start of the competition (If N, tier 4) **1. Y N**

Construction Parameters

3.a. All propulsive energy comes from one or two snap mousetraps of base 6.0 cm x 12.0 cm smaller with no parts of the jaw/hammer extending more than 1.0 cm beyond the base. The mousetraps retain all of their original parts and structural integrity. The structural integrity of the mousetrap is not altered. Any items added do not increase the potential energy of the unmodified mousetrap. If holes are drilled in the mousetrap, there ≤ 4 holes in each mousetrap and they are only to attach the mousetrap to the vehicle. **Y N**

3.b. Any additional sources of kinetic energy are at their lowest states in the ready-to-run configuration. **Y N**

3.c. The vehicle is not remotely controlled or tethered. The vehicle stops and reverses automatically. **Y N**

3.d. Electric/electronic components and devices are not used. **Y N**

3.i. Participants are able to answer questions regarding the design, construction, and operation of the device. **Y N**

DOES THE VEHICLE MEET ALL OF THE CONSTRUCTION PARAMETERS ABOVE? (IF NO, TIER 3) **2. Y N**

Individual Runs

Run 1 Run 2

3.e. An approximately 1/4" diameter round wooden dowel is attached to the vehicle approximately perpendicular to the floor. The bottom of the dowel is ≤ 1.0 cm from the track's surface and is easily accessible by the Event Supervisor. **Y N Y N**

3.f. The wheels/treads in their entirety in the ready-to-run configuration fit in a 40.0 cm x 40.0 cm space of any height. **Y N Y N**

3.g. If sighting/aiming devices are used, they are non-electric. If these sighting/aiming devices are placed on the track, they are removed before each run. **Y N Y N**

3.h. All parts of the vehicle move as a whole. Only the wheels/treads, drive string(s), and any parts already in contact with the floor in the ready-to-run configuration come into contact with the floor during the run. There are no pieces falling from the vehicle. **Y N Y N**

DOES THE RUN MEET ALL OF THE CONSTRUCTION PARAMETERS ABOVE? (IF NO, TIER 3) **3. Y N 11. Y N**

The Competition

5.a. Once participants enter the event area, they do not leave or receive outside assistance, materials, or communication. **Y N Y N**

5.b. Team does not use AC outlet power during their 8 minutes. **Y N Y N**

5.c. Team places the 3-oz. paper cup provided by the Event Supervisor upside down to cover the Start Point so that the Start Point is completely covered. **Y N Y N**

5.d. In the ready-to-run configuration, the vehicle's dowel touches the cup and the vehicle remains at the starting position without being touched. **Y N Y N**

5.f. Team does not roll the vehicle on the floor of the track on the day of the event without tournament permission. **Y N Y N**

5.g. Any substances applied to the vehicle is approved by the Event Supervisor prior to use and does not damage or leave residue on the track and/or event area. The track remains dry at all time. **Y N Y N**

5.h. Participants 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. Participants do 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 move off the track and do not follow the vehicle until called by the supervisor. **Y N Y N**

DOES THE VEHICLE MEET ALL OF THE COMPETITION PARAMETERS ABOVE? (IF NO, TIER 2 OR 3) **4. Y N 12. Y N**

Run Parameters

7.c. Vehicle Distance: point-to-point distance, in cm to the nearest 0.1 cm, from the Vehicle Target Point (VTP) to the front bottom edge dowel. **5. _____ 13. _____**

7.d. Cup Distance: If the cup covers the Cup Target Point (CTP), put 0. Otherwise, put the point-to-point distance, in cm to the nearest 0.1cm, from the CTP to the closest part of the cup at final resting position. **6. _____ 14. _____**

7.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. Run Time is recorded in seconds. **7. _____ 15. _____**
8. _____ 16. _____
9. _____ 17. _____

5.i. Failed Run: 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 is measured, the vehicle runs backward at the start of its run) **10. Y N 18. Y N**

7.f.-g. Is practice log complete, incomplete or not impounded? (Circle one) **19. Complete Incomplete Not impounded**
 Complete means including the Vehicle Distance, Cup Distance, and run time of at least 10 practice runs while varying at least one vehicle parameter

General Rule. Disqualified (notify the team and their coach as soon as possible) **20. Y N**