



BATTERY BUGGY B – 2019

Rank: _____

Final Score: _____

Team Number: B ____ Team Name: _____

Student Names: _____

2.a. Participants bring and impound a vehicle, batteries, additional/spare parts, and practice log. **1. Y N**

3.d. Batteries containing lithium or lead acid are not used. (Otherwise Participation Points only) **2. Y N**

Construction Parameters

3.b. All electrical energy used by the vehicle for any purpose is stored in a maximum of 8 AA 1.2 to 1.5-volt common, commercially available batteries, individually labeled by the manufacturer. Batteries are not installed until immediately prior to the run. All sources of energy are in a location as to be available for inspection by the Event Supervisor. If battery holders are used, the labels on the individual cells can still be inspected during impound. **Y N**

3.c. The vehicle is constructed so that when it comes to a complete stop, the batteries are no longer powering the motor. **Y N**

3.e. All energy for propulsion is electric and comes from the batteries. For any non-propulsive functions that are powered by electric storage devices, the voltage also comes from the same batteries being used for propulsion. **Y N**

3.f. Electrical components, if used, are limited to batteries, wires, motors, switches, resistors, potentiometers & mechanical relays. **Y N**

3.j. 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) **3. Y N**

Individual Runs

3.g. Wheels and treads in their entirety fit in a 30.0 cm wide x 60.0 cm long space during the entire run. **Run 1 Run 2**
Y N Y N

3.h. An approximately 1/4" round wooden dowel is attached to the front end of the vehicle. The dowel is approximately perpendicular to the floor and is the leading part of the vehicle at all time with the exception of a dowel attachment device of no more than 0.5 cm beyond the front of the dowel. The dowel extends at least 20.0 cm above the floor and extends to within 1.0 cm of the track's surface. **Y N Y N**

3.i. Only the wheels and/or treads of the vehicle contact the floor. **Y N Y N**

DOES THE RUN MEET ALL OF THE CONSTRUCTION PARAMETERS ABOVE? **4. Y N 13. Y N**

The Competition

5.b. Participants do not leave the area or receive outside assistance, materials, or communication once in the event area. **Y N Y N**

5.c. Participants do not use AC outlet power during their 8 minutes **Y N Y N**

5.c.ii. Participants do not verify the distance by rolling the vehicle on or adjacent to the track surface between the Start and Target Points. They do not roll the vehicle on the floor of the event track the day of the event without tournament permission. **Y N Y N**

5.c.iii. The track remains dry at all times and no wet and/or tacky substances are applied to the track, wheels, or treads. **Y N Y N**

5.c.iv. Participants place the tip of the vehicle's Measurement Point on the Starting Point and align the vehicle. All sighting and aligning devices placed on the track are removed before the run. **Y N Y N**

5.c.v. Participants start the vehicle using any part of an unsharpened #2 pencil with an unused eraser in a motion approximately perpendicular to the floor to actuate some sort of switch. Participants do not touch the vehicle to start it, hold it while actuating the switch, or "push" the vehicle to get it started. **Y N Y N**

5.c.vi. The entire vehicle, including batteries, move forward together. **Y N Y N**

5.d. Once the vehicle begins a run, the participants wait until called by the Event Supervisor to retrieve it.

5.e. Participants do not follow the vehicle down the track. The vehicle passes the 8.50 m Line. **Y N Y N**

DOES THE VEHICLE MEET ALL OF THE COMPETITION PARAMETERS ABOVE? **5. Y N 14. Y N**

Run Parameters

7.e. Bonus: Distance between the cans to the nearest 0.1 cm. **6. _____ 15. _____**

5.g. Bonus: Did all parts of the vehicle travel between the two cans without moving either can? **7. Y N 16. Y N**

7.c. Run Time: Starts when the dowel of the vehicle reaches 0.50 m, ends when it completely stops or when the dowel passes 8.50 m (in seconds to the precision of the timing device use).
Timer 1 **8. _____ 17. _____**
Timer 2 **9. _____ 18. _____**
Timer 3 **10. _____ 19. _____**

7.d. Distance (point to point) from the Measurement Point to the Target Point measured to the nearest 0.1 cm **11. _____ 20. _____**

5.f. Failed Run: the time and/or distance cannot be measured for the run (e.g. the vehicle starts before the Event Supervisor is ready, the participants pick up the vehicle before it is measured, the vehicle's Measurement Point doesn't reach the 0.50 m Line, the vehicle runs backward at the start of its run, the vehicle does not stop using its own braking system.) **12. Y N 21. Y N**

7.f. Is practice log complete, incomplete or not impounded? (Circle one)
Complete means including the vehicle distance from the Target Point, run time, wheel settings, and Bonus can distance, if used, for 10 or more practice runs **22. Complete Incomplete Not Impounded**

General Rule. Disqualified (notify the team and their coach as soon as possible) **23. Y N**