

## 2019 Battery Buggy Score Sheet (Subject to Revisions)



**School Name:** \_\_\_\_\_ **Team** \_\_\_\_\_ **(Circle One):** V JV1 JV2 JV3

**Student Names:** \_\_\_\_\_

<b>2a</b>	<b>Vehicle, batteries, and additional / spare parts were properly impounded (IV)</b>	<b>Y / N</b>
4b	Practice log impounded (500)	Y / N
4a	Practice log completed [at least 10 runs with vehicle distance, run time, wheel setting, bonus can distance] (250)	Y / N
<b>3b</b>	<b>Maximum of (8) AA 1.2-1.5V commercial batteries are used and are easily accessible for inspection (III)</b>	<b>Y / N</b>
3c	Vehicle constructed so that when it comes to a complete stop batteries are no longer powering the motor (III)	Y / N
3d	Batteries do not contain lithium or lead acid. If used, teams will not be allowed to run (III)	Y / FR
3e	All energy for propulsion is electric and comes from the batteries. If electric, non-propulsive functions powered by same batteries (III)	Y / N
3f	Electrical components are limited to batteries, wires, motors, switches, resistors, potentiometers, and mechanical relays. No electric or electronic tools were used (exception: stand alone calculator) (III)	Y / N
3g	Wheel/treads entirely fit within a 30cm wide x 60cm long space (axles and other parts may extend beyond) (III)	Y / N
3j	Participants can answer questions regarding design, construction, and operation of the device (III)	Y / N

		<b>Run 1</b>	<b>Run 2</b>
<b>NCSO</b>	<b>Participants must wear eye protection. Any without will not be allowed compete</b>	<b>Y / FR</b>	<b>Y / FR</b>
3h	<ul style="list-style-type: none"> <li>• An approx. ¼” round wooden dowel is attached at the front end of the vehicle</li> <li>• Dowel is the leading part of vehicle.</li> <li>• Dowel is approx. perpendicular to floor, extends ≥20.0cm above floor and ≤1.0cm within track surface.</li> <li>• Dowel attachment device extends no more than 0.5cm beyond front of dowel</li> </ul>	Y / N	Y / N
3i	Only wheels / treads contact the floor at any time during the run (III)	Y / N	Y / N
5b	Participants did not receive outside assistance/materials/communication (II)	Y / N	Y / N
5c ii	Team did not verify distance by rolling on or adjacent to track (II)	Y / N	Y / N
5c iii	Team did not apply wet/tacky substances to track, wheels, or treads (II)	Y / N	Y / N
5c iv	Vehicle’s measurement point starts on the Start Point and sighting devices are removed from track	Y / N	Y / N
5c vi	Entire vehicle, including batteries, moved forward together (II)	Y / N	Y / N
5c v	Vehicle started via a switch by using any part of the ES supplied pencil in a motion approx. perpendicular to the floor. Vehicle was not held while starting.	Y / N	Y / N
5e	Dowel of Vehicle passed the .50m line and the 8.50m line (II)	Y / N	Y / N
5f	Failed Runs occur if time / distance can not be measured <ul style="list-style-type: none"> <li>• If vehicle starts before ES is ready</li> <li>• If the vehicle’s measurement point does not cross the .50 m line;</li> <li>• If the vehicle moves backwards at the start</li> <li>• Vehicle does not stop using it’s own braking system</li> </ul>	<b>FR</b>	<b>FR</b>

<b>Bonus Can Distance:</b> Distance to .1cm between the cans	_____cm Y / N	_____cm Y / N
<b>Run Time</b> (in seconds to nearest .01, between 0.50 m Line and the 8.50 m Line, or whenever vehicle stops if 8.5 m is not reached) Use 3 timers / use middle time		
<b>Distance</b> (distance in cm from dowel to Target point to nearest .10 cm)		
<b>Initial</b> that recorded data was verified with team		

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<b>Tier and Penalties:</b> Practice log: +250 if incomplete, +500 if not impounded Tier I: Run with no violations Tier II: Run with any competition violations (noted by rule 5) Tier III: Run with any construction violations (noted by rule 3) Tier IV: Vehicle not impounded properly	I II III IV
<b>Run Score</b> = (Run Time) + (Distance x 2) – (Bonus (.5 x (110-Can Distance))) + Penalties	

**Low Final Score wins. The Final Score must be the lower of the 2 run scores. The Final Score of a vehicle with one Failed Run must be the other Run Score. Circle lower of 2 Run Scores above.**