



# WHEELED VEHICLE B

Team Checklist – 2023

Rank: \_\_\_\_\_

Tier: \_\_\_\_\_

Final Score: \_\_\_\_\_

Team Number:   B   School & Team Name: \_\_\_\_\_

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

## CHECK IN & LOG

1.   T     F   2.a. Team impounds one Vehicle in its lowest potential energy state.
2.   T     F   2.c. Participants properly wear eye protection at all times. (If false, do not run and team receives participation points.)
3. **Complete** 4.a. Is the Practice Log complete, incomplete or not impounded/missing? (Circle one)  
**Incomplete**  
**Not Impounded/Missing** *Complete means including ≥ 4 parameters (Target Distance, Vehicle Distance from Target, Time, and 1 additional) for 10 or more practice runs. Log has a front cover labeled with the Team Name & Number.*
4. **Complete** 4.b. Is the Design Log complete, incomplete or not impounded/missing? (Circle one)  
**Incomplete**  
**Not Impounded/Missing** *Complete means including materials used to construct the Vehicle, a labeled diagram or picture that identifies and describes the parts. All numerical value is labeled with standard units appropriate to the dimension being measured. Log has a front cover labeled with the Team Name & Number.*

## 1<sup>ST</sup> RUN    2<sup>ND</sup> RUN    ← **VEHICLE RUNS (8 MINUTES FOR UP TO 2 RUNS)**

### Construction Parameters:

- |              |              |              |              |  |
|--------------|--------------|--------------|--------------|--|
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.a. All energy used to propel the Vehicle is stored in non-metallic, elastic material(s). Any pre-loaded energy storage devices do not provide energy to propel the Vehicle.  |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.b. Electronic components and electric devices are not used.  |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.c. The distance from the front of the front wheel(s) to the back of the back wheel(s) is ≤ 70.0 cm.  |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.d. The Vehicle width does not exceed 30.0 cm at any point.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.e. Attached to the front end, the Vehicle has a ¼" wooden dowel approximately perpendicular to the floor so as to be the foremost part of the Vehicle at all times during its run. The dowel extends to ≥ 20 cm above the Track's surface to interrupt the photogates or timing laser, if used. The dowel also extends to within 1.0 cm of the Track's surface so that its front bottom edge is the Vehicle's Measurement Point for distance measurements. |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.f. No part of the Vehicle including the wheels extends beyond the front of the ¼" dowel, other than the dowel attachment device.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.g. Participants design the activation trigger so that its actuation is perpendicular to the floor. The Vehicle is able to remain at the starting position without being touched until triggered. The stopping mechanism works automatically. The Vehicle is not remotely controlled or tethered.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 3.h. All parts of the Vehicle move as a whole and there are no anchors, tethers, tie downs, launching ramps, or other separate pieces are used. The only parts to contact the floor during the run are wheels/treads, drive string(s), elastic, and any parts already in contact with the floor in the ready-to-run configuration. There are no pieces falling off during the run.   |

### 5. \_\_\_\_\_ 10. \_\_\_\_\_ **THE NUMBER OF CONSTRUCTION PARAMETERS MET (Max = 8)**

### Competition Parameters:

- |              |              |              |              |  |
|--------------|--------------|--------------|--------------|--|
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.a. Once participants enter the event area to compete, they do not leave or receive outside assistance, materials, or communication until they are finished competing and have left the event area.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.c. Electric tools are not used except for calculators.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.d. In the ready-to-run configuration, the Vehicle's Measurement Point is over the Start Point.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.g. Only non-electric/non-electronic sighting/aiming devices are used. If placed on the Track, they are removed before each run. Lines existing on the floor prior to the run are not used.   |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.h. Team does not roll the Vehicle on the floor of the Track on the day of the event without tournament permission. If it is permitted, only participants are present.  |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.i. Any substances applied to the Vehicle are approved by the Event Supervisor prior to use and do not damage or leave residue on the floor, Track, and/or event area. The Track remains dry at all times.  |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.j. Team starts the Vehicle using any part of an unsharpened #2 pencil with an unused eraser in a motion approximately perpendicular to the floor, to actuate a trigger. Team does 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, team do not follow their Vehicle and waits until called by the Event Supervisor to retrieve their Vehicle. |
| <u>  T  </u> | <u>  F  </u> | <u>  T  </u> | <u>  F  </u> | 6.m. The Vehicle passes the 7.25 m Line. Mark this as "True" if the Vehicle does not pass the 0.25 m Line.   |

### 6. \_\_\_\_\_ 11. \_\_\_\_\_ **THE NUMBER OF COMPETITION PARAMETERS MET (Max = 8)**

7. \_\_\_\_\_ 12. \_\_\_\_\_ 7.b. **Run Time:** Time (sec) from when the dowel of the Vehicle reaches the 0.25 m Timing Line and ends when it passes the 7.25 m Timing Line. Put 0 for Failed Runs or if the Vehicle stops before 7.25 m Line.
8. \_\_\_\_\_ 13. \_\_\_\_\_ 7.e. **Vehicle Distance:** point-to-point distance, in centimeters to the nearest 0.1 cm, from the Measurement Point to the Target Point
9.   T     F   14.   T     F   6.l. **Failed Run:** any run where the Vehicle starts before the Event Supervisor is ready, its distance cannot be measured, Vehicle travels in the wrong direction, Vehicle does not go at least 0.25 m, the team pushes the Vehicle down the track, or any run that does not occur in the 8 minutes.

15.   T     F   General Rule: The team is disqualified. (Notify the team and their coach as soon as possible.)