



GRAVITY VEHICLE C

Team Checklist – 2022

Rank: _____

Tier: _____

Final Score: _____

Team Number: C School & Team Name: _____

Student Names: _____

CHECK IN & PRACTICE LOG

1. T F 2.a. Team impounds one Vehicle, one Ramp, any alignment devices, any additional/spare parts, and any counterweights used to secure the Ramp. Teams from the same school may share a Ramp if it is compatible with their Vehicle.

2. **Complete** 4.a. Is the Practice Log complete, incomplete or not impounded/missing? (Circle one)
Incomplete Complete means including 3 or more parameters (Target Distance, Vehicle Distance from Target, and 1
Not Impounded/Missing additional) for 10 or more practice runs. Logs must include the Team name and number.

1ST RUN 2ND RUN 3RD RUN ← VEHICLE RUNS (10 MINUTES FOR UP TO 3 RUNS)

Construction Parameters:

<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.a. All propulsive energy comes from the gravitational potential energy of the mass of Vehicle. The entire Vehicle starts from an elevated, non-horizontal position on the team's Ramp.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.a. A release mechanism is included as part of the Ramp to hold the Vehicle in the ready-to-run configuration until triggered by the participants.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.b. Any additional sources of kinetic energy for the Vehicle are in their lowest energy state in ready-to-run configuration. Any pre-loaded energy storage devices used to operate other Vehicle functions (e.g. braking system) do not provide kinetic energy to propel the Vehicle.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.c. The Vehicle's total mass (including any sighting/aiming devices left on the Vehicle during the run) ≤ 2.000 kg.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.d. Electronic components and electric devices are not used.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.e. A jumbo paperclip (i.e. the large ones) is attached to the front of the Vehicle and bent so that one end of it is pointing down toward the surface of the Track between 1/2" and 3/4" above it. The paperclip is not cut or shortened and it clears the 3/8" dowel placed across the Track. The end of the paperclip is easily accessible by the Event Supervisor - no part of the Vehicle, except for the wheels, extends more than 0.5 cm beyond it.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.f. The Vehicle and the Ramp including the release mechanism, together in the ready-to-run configuration completely fit within an imaginary rectangular box with a 50.0 cm by 50.0 cm base and a height of 100.0 cm.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	3.g. All parts of the Vehicle move as a whole, and no anchors, tethers, or other separate pieces are used. The only parts of the Vehicle that contact the floor during the run are the wheels/treads. No pieces fall from the Vehicle during the run.

3. T F 8. T F 13. T F RUN MEETS ALL CONSTRUCTION PARAMETERS ABOVE

Competition Parameters:

<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	5.a. Once participants enter the event area, they do not leave or receive outside assistance, materials, or communication.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	5.c. Except for the calculator, electric and electronic tools are not used.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	5.d. In the ready-to-run configuration, the Vehicle and Ramp are entirely behind the Start Line. The Vehicle and Ramp remain at the starting position without being touched.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	5.f. Only non-electronic sighting/aiming devices are used. If placed on the Track, they are removed before each run.
<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	<u> T </u>	<u> F </u>	5.g. 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>	<u> T </u>	<u> F </u>	5.h. Any substances applied to the Vehicle and Ramp 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>	<u> T </u>	<u> F </u>	5.i. Team starts the Vehicle by using any part of an unsharpened #2 pencil with an unused eraser, supplied by the Event Supervisor, to actuate a release mechanism on the Ramp. Team does not touch/push the Vehicle or Ramp while actuating the release mechanism. Once the run starts, teams do not follow the Vehicle until called by the Event Supervisor to retrieve their Vehicle.

4. T F 9. T F 14. T F RUN MEETS ALL COMPETITION PARAMETERS ABOVE

5. _____ 10. _____ 15. _____ 7.e. **Run Time:** Time (sec) from vehicle begins to move until complete stop, to nearest 0.1 s

6. _____ 11. _____ 16. _____ 7.d. **Veh. Dist:** point-to-point dist. (cm) from Veh.'s Measure. Pt to Target Pt, to nearest 0.1 cm

7. T F 12. T F 17. T F 5.k. **Failed Run:** any run that does not occur in the 10 minutes or any run where the Vehicle starts before the Event Supervisor is ready, has a distance that cannot be measured (e.g. participants pick it up before it is measured), or is pushed down the Track

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