

2020 Gravity Vehicle Score Sheet (Subject to Revisions)



School Name: _____ **Team #** _____: V JV1 JV2 JV3

Student Names: _____

2a	A single Vehicle, a single ramp, any alignment devices (if used), and any spare parts were properly impounded (V)	Y / N
4b	Practice log impounded properly (500)	Y / N
4a	Practice log completed [10+ runs, Target Distance, Vehicle Distance, Run Time, and one additional parameter] (250)	Y / N
3a	All propulsive energy comes from gravitational potential energy of the mass of Vehicle. Entire Vehicle starts from an elevated, non-horizontal position on the team's Ramp. A release mechanism is included as part of the Ramp to hold the Vehicle in ready-to-run configuration. (III)	Y / N
3c	The Vehicle's mass does not exceed 2.000 kg. (III)	Y / N
3d	No electronic or electric devices are used (III)	Y / N
2d	Participants can answer questions regarding design, construction, and operation of the device.	Y / N
		RUN 1 RUN 2
NCSO	<i>Participants must wear eye protection. Any without will not be allowed compete</i>	Y / FR Y / FR
NCSO	<i>Teams included floor protection with Ramp and did not damage floor (e.g. felt pads)</i>	Y / FR Y / FR
3b	Any additional sources of kinetic energy are at lowest state in ready-to-run configuration (III)	Y / N Y / N
3e	<ul style="list-style-type: none"> • An approx. ¼" round wooden dowel is attached to vehicle approx. perpendicular to floor • Bottom of dowel is ≤1.0cm from track surface, extends > 20.0cm • Dowel is easily accessible by Event Supervisor • No part of vehicle extends > .5cm beyond front of dowel (III) 	Y / N Y / N
3f	In ready-to-run, Vehicle and Ramp (including floor protection) fits within a rectangular box: 50.0cm x 50.0cm base x 100.0cm high box (III)	Y / N Y / N
3g	All parts of vehicle move as a whole: no anchors, tethers, or separate pieces. Only parts contacting the floor were the wheels/treads. No piece fell from vehicle during run. (III)	Y / N Y / N
5a	Participants did not leave the area or receive outside assistance, materials, or communication (II)	Y / N Y / N
5c	Electric tools are not used except for a stand alone calculator (II)	Y / N Y / N
5d	In ready-to-run, Vehicle + Ramp were entirely behind Start Line, and remained w/o being touched (II)	Y / N Y / N
5f	Only non-electric sighting/aiming devices are used, and removed from track prior to run. Sighting/aiming devices left on the vehicle did not cause the Vehicle's mass to exceed 2.000 kg (II)	Y / N Y / N
5g	Teams did not roll vehicle on the floor of the Track on the day of the event (II)	Y / N Y / N
5h	Substances used did not damage or leave residue on the floor, track, or event area. (II)	Y / N Y / N
5i	Vehicle is started using any part of an ES supplied pencil to actuate a release mechanism on the Ramp. Team did not touch/push/hold the Vehicle or Ramp to start or while actuating the release. (II)	Y / N Y / N
5j	Failed Runs: (IV) <ul style="list-style-type: none"> • If time/distance can not be measured • If vehicle starts before ES is ready 	• If participants pick up vehicle before it is measured • If Vehicle moves but does not cross the .50m line FR FR

Run Time (to nearest .01 second, starts when dowel crosses .5m line, stops when dowel crosses the 8.5m line, or vehicle stops before the line) Use 3 timers / use middle time		
Vehicle Distance (point to point distance to nearest.1cm from bottom of dowel to Target Point)		
(Tier) Violation: (I) No violations; (II) Competition; (III) Construction; (IV) Two FR; (V) Improper impound	(I)(II)(III)(IV)(V)	
Run Score = (Vehicle Distance x2) + (Run Time) + Penalties (see rule 4a and 4b)		
Track Leader initials that recorded data was verified with team		

Lowest Final score in the lowest Tier wins, rank all teams low to high within each Tier.

Final Score is the lower of the two runs, in the lower Tier.

09.15.2019