

# GRAVITY VEHICLE C - 2021



TEAM NUMBER  C  TEAM NAME \_\_\_\_\_

STUDENT NAMES \_\_\_\_\_

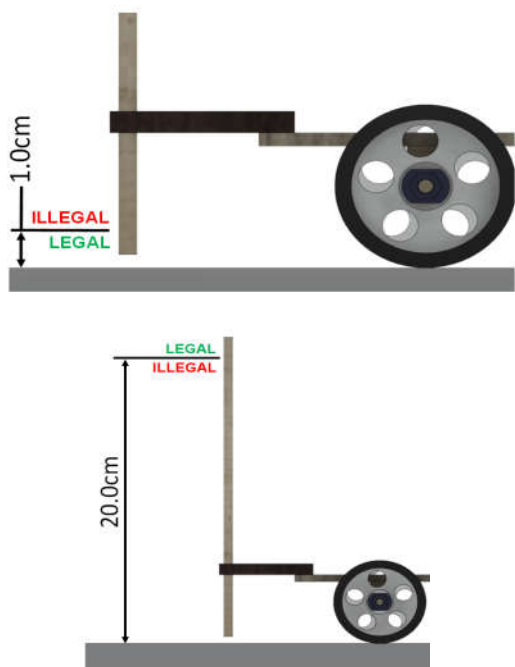
FINAL SCORE \_\_\_\_\_

This Checklist provides a list of possible violations to aid the Event Supervisor		Violation Found		
Mark Violations with 'X' Below; Circle 'Y' to the right if a Violation is found for matching rule		\ \ /		
<b>Event Parameters</b>				
2.a. Impounded	Not Impounded: [ ] Vehicle [ ] Ramp [ ] Alignment Device(s), if any [ ] Spare parts, if any	1	Y	N
2.c. Design Questions	[ ] Cannot Answer [ ] Built by others [ ] _____	2	Y	N
<b>Practice Log</b>				
4.a. Parameters	Missing: [ ] Target Distance [ ] Vehicle Distance from Target [ ] 3th Parameter (e.g. # of axle turns, drive arm length, alignment angle, ...) [ ] Fewer than 10 practice runs recorded	3	Y	N
4.b. Impounded	[ ] Log not Impounded	4	Y	N
<b>Construction Parameters</b>				
3.c. Vehicle Mass	[ 1 ] [ 2 ] [ 3 ] Vehicle Mass > 2.000 kg	RUN #1	RUN #2	RUN #3
3.d. Electronic/Electric	[ 1 ] [ 2 ] [ 3 ] Electronic or Electric Device(s) Used (except calculator)	Y N	Y N	Y N
3.e. Dowel Rod	[ 1 ] [ 2 ] [ 3 ] Not approximately 1/4" round [ 1 ] [ 2 ] [ 3 ] > 1cm from floor [ 1 ] [ 2 ] [ 3 ] < 20cm above floor [ 1 ] [ 2 ] [ 3 ] Not approximately perpendicular [ 1 ] [ 2 ] [ 3 ] Part of vehicle (excluding wheels) extending > 0.5cm beyond dowel rod	Y N	Y N	Y N
3.a. Energy	[ 1 ] [ 2 ] [ 3 ] <i>Propulsive energy coming from other than gravitational potential energy</i> [ 1 ] [ 2 ] [ 3 ] <i>Vehicle in horizontal position on ramp</i>	Y N	Y N	Y N
3.a. Release Mechanism	[ 1 ] [ 2 ] [ 3 ] <i>Release mechanism not included as part of ramp</i>	Y N	Y N	Y N
3.b. Energy Converters	[ 1 ] [ 2 ] [ 3 ] <i>Kinetic energy sources other than gravitational are not at lowest state in ready to run</i>	Y N	Y N	Y N
3.f. Dimensions	<i>Vehicle and Ramp combined size in Ready to Run including the release mechanism (excluding Pencil)</i> [ 1 ] [ 2 ] [ 3 ] <i>Base &gt; 50.0cm by 50.0cm</i> [ 1 ] [ 2 ] [ 3 ] <i>Height &gt; 100.0cm</i>	Y N	Y N	Y N
3.g. Vehicle Parts	[ 1 ] [ 2 ] [ 3 ] All parts do not move as a whole [ 1 ] [ 2 ] [ 3 ] Parts fell off the vehicle or ramp [ 1 ] [ 2 ] [ 3 ] Parts other than wheels in contacted with ground	Y N	Y N	Y N
<b>DOES THE VEHICLE HAVE A CONSTRUCTION VIOLATION ABOVE? (IF YES, TIER 3)</b>		5	9	13
		Y N	Y N	Y N
<b>The Competition</b>				
5.a. Outside Help	[ 1 ] [ 2 ] [ 3 ] Competitors left after starting to compete [ 1 ] [ 2 ] [ 3 ] or received outside assistance, materials, or communication	Y N	Y N	Y N
5.c. Electric Tools	[ 1 ] [ 2 ] [ 3 ] Used electric tools (except calculator)	Y N	Y N	Y N
5.d. Start Line	[ 1 ] [ 2 ] [ 3 ] <i>Ramp/Vehicle in front of start line</i> [ 1 ] [ 2 ] [ 3 ] <i>Ramp/Vehicle will not remain in place untouched</i>	Y N	Y N	Y N
5.f. Sighting Device	[ 1 ] [ 2 ] [ 3 ] Electric sighting/aiming used [ 1 ] [ 2 ] [ 3 ] Sighting/aiming left on track during run [ 1 ] [ 2 ] [ 3 ] <i>Sighting/aiming left on vehicle causes vehicle mass &gt; 2.000kg</i>	Y N	Y N	Y N
5.g. Rolling On Floor	[ 1 ] [ 2 ] [ 3 ] Vehicle was rolled on floor of the track	Y N	Y N	Y N
5.h. Cleaning	[ 1 ] [ 2 ] [ 3 ] Substances applied to vehicle without ES prior approval [ 1 ] [ 2 ] [ 3 ] Substances damage or left residue on the floor or floor wet	Y N	Y N	Y N
5.i. Pencil/Followed	[ 1 ] [ 2 ] [ 3 ] Pencil not used to start [ 1 ] [ 2 ] [ 3 ] Vehicle was pushed or held [ 1 ] [ 2 ] [ 3 ] Ramp touched or held during release [ 1 ] [ 2 ] [ 3 ] Competitors did not wait to be called to retrieve their vehicle	Y N	Y N	Y N
<b>DOES THE VEHICLE HAVE A COMPETITION VIOLATION ABOVE? (IF YES, TIER 2)</b>		6	10	14
		Y N	Y N	Y N
<b>Run Parameters</b>				
7.d. Distance	Distance (point to point) from the Measurement Point to the Target Point measured to the nearest 0.1 cm	7	11	15
5.k. Failed Run	[ 1 ] [ 2 ] [ 3 ] Started before ES is ready [ 1 ] [ 2 ] [ 3 ] Picked up before measurement [ 1 ] [ 2 ] [ 3 ] Time and/or distance cannot be measured [ 1 ] [ 2 ] [ 3 ] Does not occur in 10 minutes	8	12	16
		Y N	Y N	Y N
Competitors informed of run's violations at end of run and before next run		[ ]	[ ]	[ ]
General Rule	Disqualified (notify the team and their coach as soon as possible) Reason _____	17	Y	N

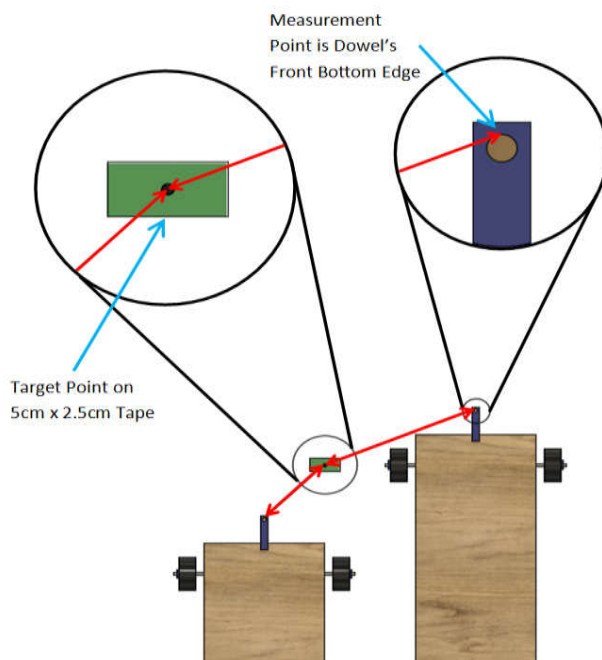
Bold and Italic Text are Ready-to-Run Checks

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**Rule 3.d** - 1/4" round wooden dowel requirements



**Rule 7.d** - Vehicle Distance is a point-to-point distance from the Measurement Point to the Target Point



**Rule 3.f** The Vehicle and the Ramp including the release mechanism, in the ready-to-run configuration, must completely fit within an imaginary rectangular box with a 50.0cm x 50.0cm base and a height of 100.0 cm. A starting pencil used as part of the release mechanism may extend beyond the dimensions of the imaginary box.

