

Gravity Vehicle C – low score wins – February 18, 2012

School Name: _____ Team Name: _____

Student(s): 1.) _____ 2.) _____

Construction Qualification Any Violations = Tier 3

All propulsion energy from gravitational potential energy from vehicle mass	Y	N
Any other energy sources (springs, etc.) start at their lowest energy states	Y	N
Vehicle track (L & R outside surfaces tires of wider axel) ≤ 35.0 cm	Y	N
Vehicle mass ≤ 2.500 kg	Y	N
Bent paper clip, point at the front of the chassis and within 1 cm of track surface	Y	N
Point of paper clip is easily accessible to event captain	Y	N
Electrical devices not permitted - No electronic sighting devices , including lasers	Y	N

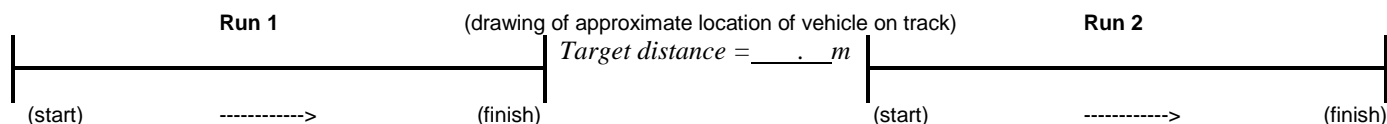
***Predicted Vehicle Run Time: _____ seconds

signed _____

Running of Gravity Vehicle Any Violations = Tier 2

	1 st Run	2 nd Run
In ready-to-run state, vehicle + ramp = height ≤ 100.0 cm, width ≤ 75.0 cm, length ≤ 75.0 cm	Y N	Y N
One side of ramp base is parallel to starting line	Y N	Y N
Other sighting devices <u>may</u> be removed before run	Y N	Y N
Vehicle starts from an elevated, non-horizontal position	Y N	Y N
Vehicle was not pushed or constrained at startup nor touched during the run	Y N	Y N
Ramp includes a release mechanism, not part of the vehicle	Y N	Y N
Vehicle is not tethered or remotely controlled in any way	Y N	Y N
Vehicle was set in motion by activating a perpendicular trigger using a pencil	Y N	Y N
All parts moved forward as a whole. There were no separate pieces, nothing fell off.	Y N	Y N
Contestants ran vehicle without help from coach, parent, etc	Y DQ	Y DQ
No part of vehicle except wheels contacted floor or tape defining track – ramp OK on floor	Y N	Y N
Stopping is automatic, not electronic	Y N	Y N
Vehicle and ramp are completely within the launch area before start	Y N	Y N
Alignment devices remaining on vehicle during run are part of the weight ≤ 2.500 kg	Y N	Y N
Vehicle went in wrong direction at start, before judges were ready, or removed before measured	failed run	failed run

TEAMS HAVE **10 MINUTES** FROM THE TIME THEY START ADJUSTING THEIR VEHICLES TO DO TWO RUNS



1st Run time: _____ seconds (to 0.01 sec) 2nd Run time: _____ seconds (to 0.01 sec)

1st Distance from Target Pt: _____ mm 2nd Distance from Target Pt: _____ mm

Distance Score = Point-to-point dist. from Measurement Point to Target Point in mm

Time Score = 50 X Run Time

Predicted Time score = 25 | (Predicted Time – Run Time) |

Tier Determination

1. Run with no violations
2. Run with competition violations
3. Run with construction violations +/- competition violations
4. Vehicle can not complete either run
5. DQ

RUN 1: Tier _____

RUN 2: Tier _____

Distance Score _____ mm

_____ mm

Time Score (50 X run time) _____ sec

_____ sec

Predicted Time Score _____ sec

_____ sec

TOTAL _____

1st Tie Breaker = better lesser run 2nd Tie Breaker = better predicted time score in better run 3rd Tie Breaker: Better Distance score in better run