

3D Printed Gravity Race Challenge

GENERAL RULES & REGULATIONS

The following Rules and Regulations apply to all Gravity Race Challenge Events.

NOTE: Each participant is responsible for understanding and following all rules. Nothing would be more heartbreaking than to work hard on a car and then have it disqualified for a rule violation.

1.1 Qualification to Race

- All participants must be registered with STEM Wars and the Dream It Do It event

1.2 Essential Materials

- All cars entered shall be constructed from any 3d printer and any 3d printer materials.
 - a.) You must provide a dimensioned drawing of your vehicle.
 - b.) Pitsco Wheels may be used if you so choose

1.3 Attendance

- The racers **MUST** register/enter their own car for competition. This means that the racer must be present at the "Inspection and Registration" process to enter their car into competition.

1.4 New Work

- The car must be newly constructed each year.
- Modifications to previous year cars shall not be accepted

Failure to Pass Inspection

a.) The Official Inspection Committee shall be responsible to inspect and to disqualify any car that does not meet the rules as described herein.

b.) If a car does not pass inspection, the owner will be informed of the reason their car did not pass.

c.) After a car passes inspection and is registered, it will be impounded & stored at the Gravity Race Challenge site until race time.

d.) No car may be altered in any way after it has been registered.

f.) After this point the only persons allowed to handle the cars will be the race director or the registered owner of the car.

GRAVITY RACE CHALLENGE RACE CAR DESIGN REGULATIONS

2.1 Overall Car Specifications

- a.) Maximum Overall Width (outside edge-to-edge of wheels): 2.75 “
- b.) Minimum Width between wheels – 1.5”
- c.) Wheelbase – The distance between axles must be between (4” – 4.375”)
- d.) Maximum/Minimum Length – 5” – 7”
- e.) Maximum Height – Not to exceed 4”
- f.) Minimum Track Clearance - Bottom clearance between car and track - 3/8" NOTE: Even though the lane strips are typically only 1/4” high. The extra clearance is to allow the car to go from the sloped portion of the track to the flat portion without dragging.
- g.) Front of Car - No part of the car can extend beyond the starting post and the front of the car must be no higher than 1/2” where it contacts the starting post. “U” or “V” shaped front ends are not allowed.
- h.) Maximum Weight - Not over **3 ounces (85 grams)**

2.2 Additional Materials

- a.) Vehicle must use either 1/8” steel axles or nails for wheel axles
- b.) Powdered lubricants only, no liquid lubricants.

RACE DAY RULES, REGULATIONS, AND INFORMATION

Competition will consist of 1 to 2 heat races for each contestant, the top 10 racers will compete in the Grand Final heat. Race Committee members are responsible for the proper conduct of the races. The decisions of the Race Committee members are deemed final. Only members of the Race Committee can enter the race setup and inspection area. The Race Committee are the only members that will setup and handle each vehicle and heat race.