

Building Specifications

- A car must have four wheels, no larger than 10" in total diameter. Tires may be solid or filled with air; no pumps will be provided on race day.
- If threaded axles are used, the nuts must be secured either with a cotter pin through the axle, or a second nut and lock washer firmly tightened to prevent loosening.
- In order to fit on the ramp, overall length must be no longer than 5 feet; wheelbase (measured axle-to-axle) must be no longer than 4 feet.
- Frames are to be built with construction lumber of no size smaller than trade 2x4 dimensions. Joints must be fastened with bolts or screws. Nails and glue will not safely secure joints.
- Front axles must be blocked to prevent oversteer; less than 10 degrees of deflection is recommended. Cars without safety blocking will not be allowed to race.
- Steering must be primarily controlled by a rope "bridle"; foot-steering is allowed as an assistance to the rope, but must not be the sole method of control. Steering wheel systems of any sort are not allowed.
- A car without a functioning handbrake will not be allowed to race. A rubber pad on the foot of the brake will stop more surely and safely than a bare wooden brake. Attempting to stop the car by dragging feet or getting in front of it invites injury.
- A hip-to-hip seatbelt or three-point harness must be worn for every race, securing the Scout to the seat with little to no slack. A hip-to-shoulder belt alone is not sufficient restraint.
- No propulsion devices are allowed. Gravity from the ramp will be the only allowed source of momentum.
- Footrests are optional, but strongly recommended.

Cars will be inspected for safety before racing begins.

It is strongly suggested that Scouts practice before race day so they are familiar with steering (and, more importantly, braking). Scouts that practice before the race tend to have better times and fewer mishaps.

An example frame design is included on the next page.

CUBMOBILE. Use a helmet and safety belt.

