

CUB SCOUT RACE CAR DESIGN STANDARDS

Weight: Race cars may weigh no more than five (5) ounces (total weight) as determined on the official scales during the pre-race check in.

Wheels and Axles: The car shall roll on the wheels from the kit. The wheels shall turn about the axle nails from the kit. The axle nails shall be firmly affixed to the wood of the car body, and **MUST** be placed in the original 'axle grooves' in the supplied wooden block. It must be obvious to the judges that the grooves, wheels, and the nails from the kit are being used.

Size: Race cars may be no longer than 7 inches, nor wider than 2-3/4 (2.75) inches, as determined by the official gages during the Registration and Inspection. Underside clearance of at least 3/8 (0.375) inches and inside wheel to wheel clearance of at least 1-3/4 (1.75) inches is recommended, so that the car will run on the race track. Adequate clearance is the responsibility of the race car builder.

Weights and Attachment: Weight may be added to the car and will be considered part of the car for purposes of all measurements. "Weight" is considered to be any material on the car that is not provided in the kit. All weight must be securely fastened to the car, e.g. by permanent glue, nails or screws, but not by "sticky substances", e.g. tape, or tack spray. Weights shall be passive, ie. non-moveable, non-magnetic, non-electric, non-sticky, etc.

Wheel Treatment: Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass or in reducing the wheel width from the original kit wheels. Some of the original "tread marks" on the wheel face must remain intact, ie. apparent to the inspector. Wheels may be machined to a beveled condition and the portion of the wheel surface that contacts the track must remain parallel to the axle.

Unacceptable Construction: The following may NOT be used in conjunction with the wheels or axels: hubcaps, washers, inserts, sleeves, bearings.

Gravity Powered: The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car, (For instance, this provision disqualifies cars with sticky substances on the front of the car and protrusions which may catch on the starting pin.)

Lubricants: Only dry lubricants such as graphite will be allowed for lubricating the wheels.
Lubricants may not foul the track.

Painting and Wheel Assembly: Apply several coats of sanding sealer; then sand the entire car with fine grade sandpaper. Give at least two coats of fast drying paint, in your choice of color. When paint is completely dry sand with fine sandpaper, apply a final coat of paint and allow to dry thoroughly. Now apply a coat of auto wax and rub to a high gloss. Make sure wheels turn freely.

Race Day: Each level of cub scouts will compete for 1st, 2nd, and 3rd place.

Awards: Awards will be announce for each level after the race is completed. May the best car win!!