



## ANNUAL TRAIL LIFE GRAND PRIX DALLAS, TX

### SPECIFICATIONS

1. Measurements; to fit the track and measure your speed properly at the finish line:
  - Length – not more than 7 inches
  - Width – not more than 2  $\frac{3}{4}$  inches
  - Height – not more than 3 inches
  - Distance between the wheels – at least 1  $\frac{3}{4}$  inches
  - Distance between the axles – 4  $\frac{3}{8}$  inches to 5  $\frac{3}{4}$  inches
  - Weight – not more than 5 ounces
  - Clearance (how far the bottom of your car should be from the surface its sitting on – at least  $\frac{3}{8}$  of an inch. (So it will not rub on the lane strip))
2. The addition of decals, driver, steering wheel, car trim, accessories, and painting are permitted provided the car still meets the specifications above and does not have any parts that hang out in front of the starting pin on the track.
3. Use standard Pinewood derby axels and wheels (BSA or Awana style). See examples below.
4. Wheel bearings, bushings, washers, and springs are prohibited.
5. Wheels can be lightly sanded but must not result in substantial removal of mass or in reducing the wheel width from the original kit wheels. Wheel shape may not be altered from the original condition (i.e. rounded, beveled, cupped, etc.).
6. Starting devices are prohibited. Cars must be freewheeling.
7. Wheels and axles may be lubricated with any DRY type of lubricant. Once a car is checked in, no further lubrication will be allowed.

### INSPECTION AND CHECK IN

Before the races begin all cars must be inspected and checked in. The car must meet all specifications at inspection time. If the car does not pass initially, it may be modified at the repair station so long as it passes before the races begin. Once the car has been inspected and checked in, there will be no further access to the car including between races. All adjustments, lubrication of wheels, etc. must be done prior to inspection and check in.

### JUDGING THE RACE

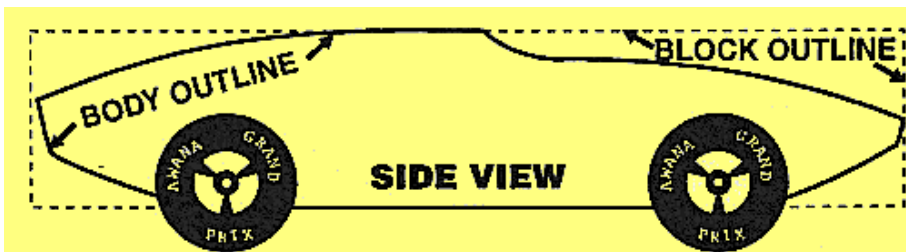
Cars will be judged in the two areas: Speed and Design. The competition will be divided into four leagues: Dragsters (Woodlands Trail), Hot Rods (Navigators and Adventurers), Concept Cars (3D printed - WT/Nav/Adv), and Outlaws (Adults).

Not everyone will win a trophy. But remember: the goal is to have fun and promote character, leadership, and sportsmanship!

## CONSTRUCTION SUGGESTIONS AND HINTS

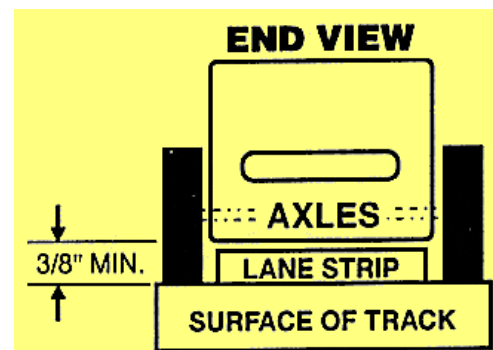
NOTE: Boys should do most of the work themselves. Adults should help with the dangerous stuff.

1. Draw the car design on paper first. Be creative and use your imagination! Cars may be built to look like real race cars, tractors, boats, musical instruments or any other creative design. Design judging will be based on how well your car resembles what it is meant to be, as well as how well it is constructed and finished. Use of pre-cut box kits will be acceptable, but not preferred when design awards are judged.
2. Outline your design on the wood block as shown. Rough cut the shape using a coping saw, jig saw, band saw, knife, or power sander (adult supervision is strongly recommended for this step!). Sand the car to give it its final shape and then smooth the surface.



3. Cars should be carefully painted. The quality of the car's finish may be determined by the number of paint coats and proper drying time between coats (hint: don't wait until the day before the race to paint your car). You may also use the decals to enhance your design. Waxing or coating with a clear, high-gloss overcoat can further improve appearance.

4. The track is designed so that the lane strips keep the cars in their proper lanes. If slots for the axles have been pre-cut in the wood block, you may use them or drill your own. If you reposition the axles, make sure the distance between the wheels is at least 1 3/4" and the bottom of the car is at least 3/8" above ground so it will not rub slow the car. Insert the axles into the wheels and tap them into the slots or holes. Do not tap in too far the wheel will bind on the car body.



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5. Winning speed cars usually weigh the maximum 5 ounces. Once cars are carved, they usually weigh only 2 to 3 ounces (make sure you include wheels and axles). Weight may be added with a heavier material, or by securely attaching commercially purchased or homemade weights with screws or glue (stay within size limits, including ground clearance). No loose or moving weights are allowed. If a car is a little too heavy, drill out some wood from the bottom. If a little too light, add small weights. These fine adjustments can be made on the day of the race at the pit area.

