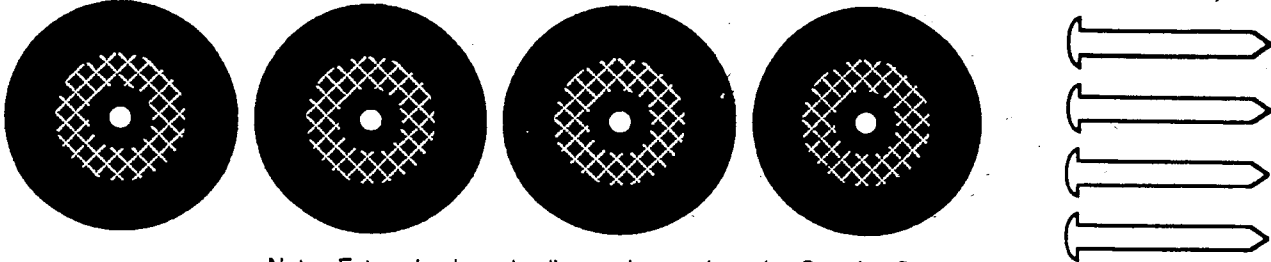


PINEWOOD DERBY RACE CAR RULES

RULE 1

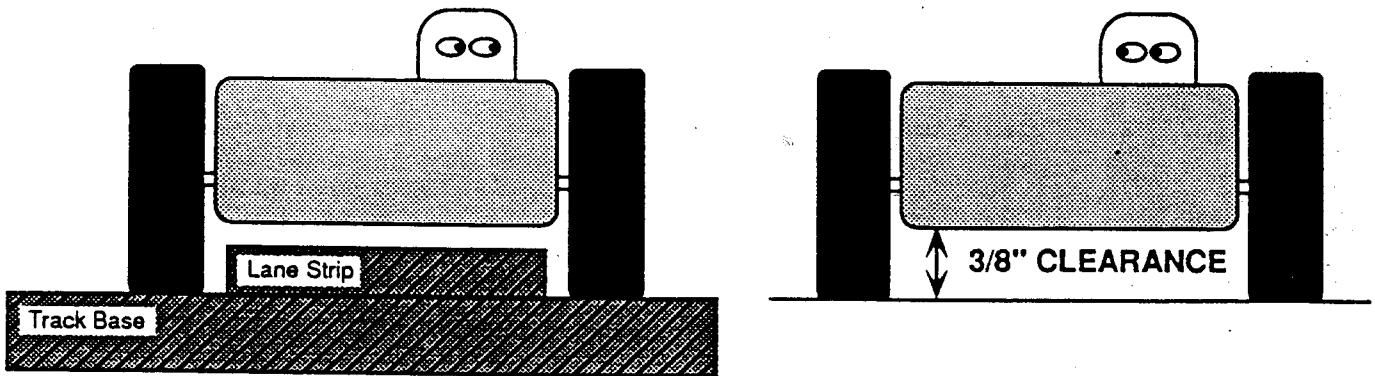
For each year, you must build a NEW car and use the 4 wheels and the 4 nails provided in the Pinewood Kit.



Note - Extra wheels and nails may be purchased at Scouting Stores.

RULE 2

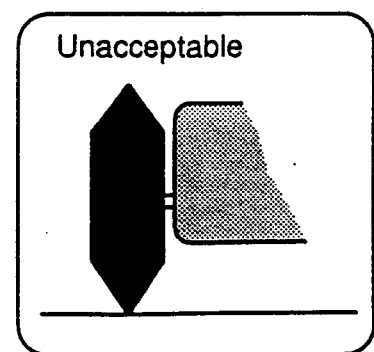
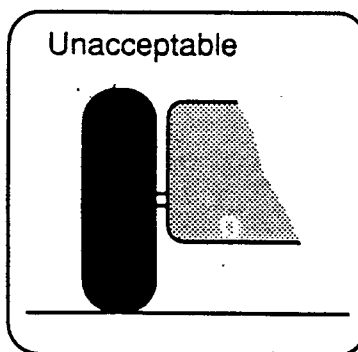
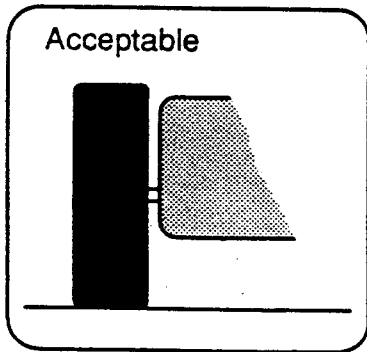
The Car must have a 3/8 Inch Clearance to make sure it does not rub against the lane strip.



RULE 3

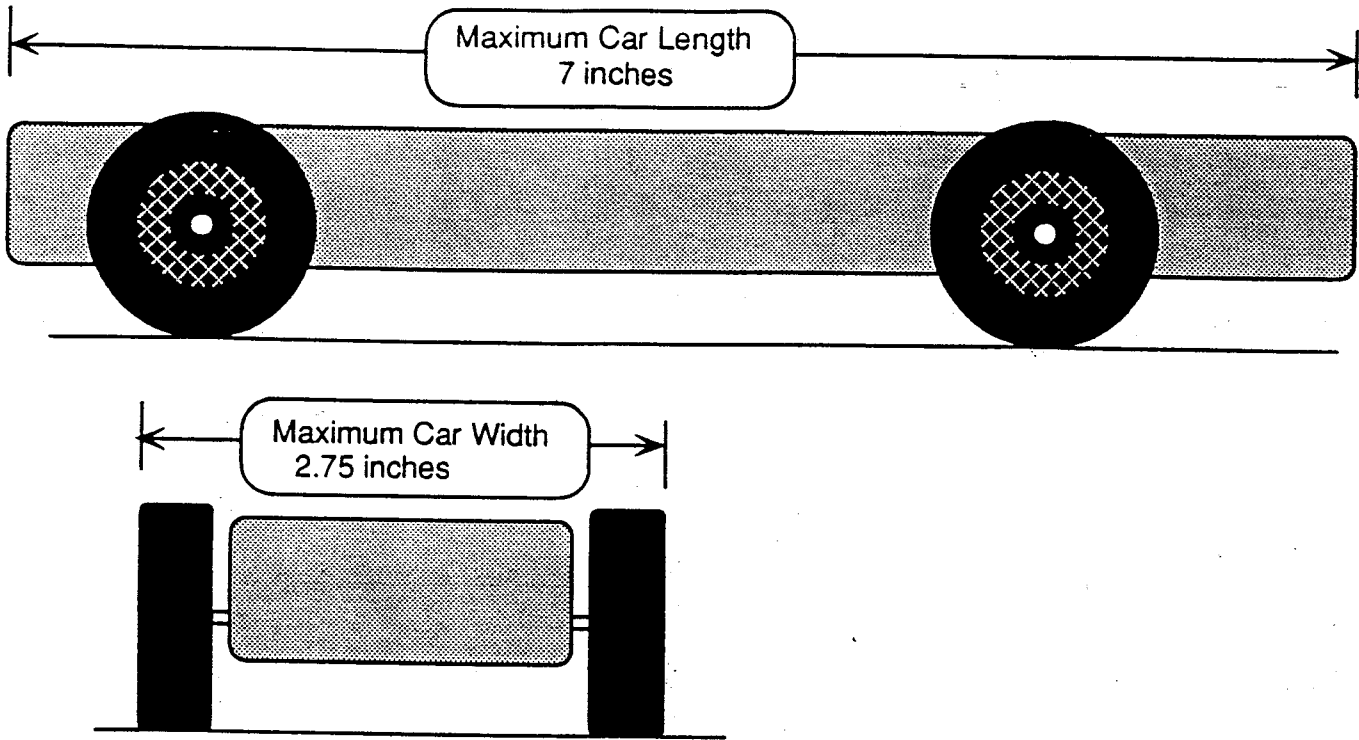
Cars with Modified (or Shaped) Wheels will be Disqualified.

The wheel surface may be changed (i.e. to remove surface imperfections) as long as the surface remains flat.

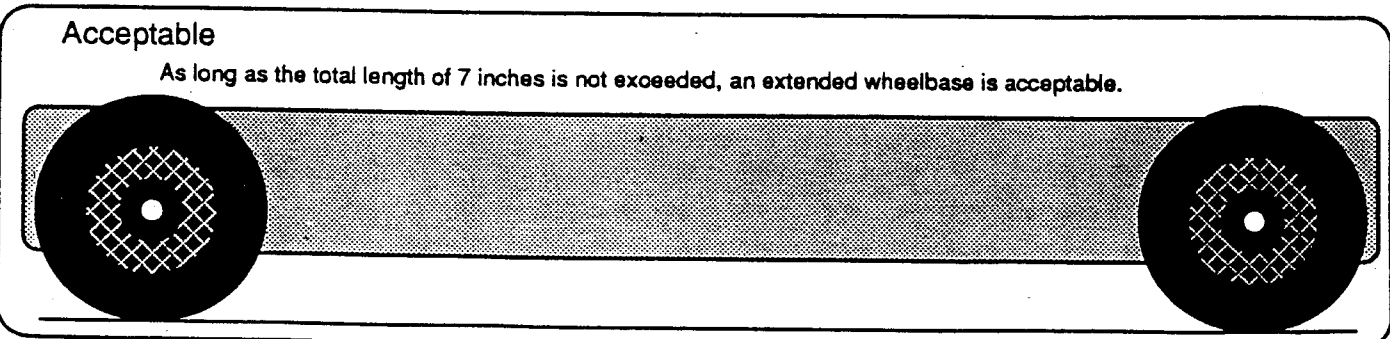
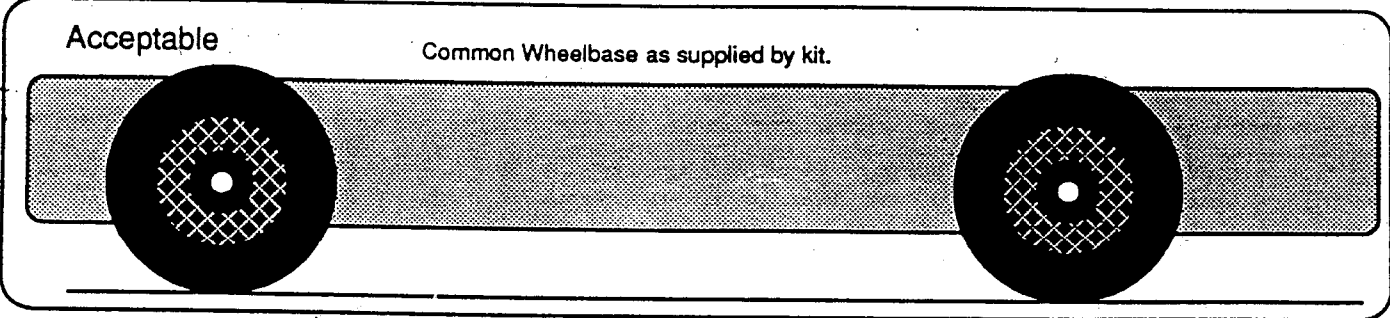


PINEWOOD DERBY RACE CAR RULES

Rule 4 Car Dimensions



Rule 5 The Wheelbase may be modified.



PINEWOOD DERBY RACE CAR RULES

Rule 6 The Car Weight must not exceed 5 ounces (141.75 grams)

*Before any wood cutting and car body shaping, the basic car kit weighs about 84 grams (wood = 64 grams and wheels plus axles = 20 grams). Plan to ADD about 57 grams. Weights usually available at Hobby Stores.
"The fully-weighted car is usually faster."*

Weights must be secured to the car body and must not violate the dimension rule or the 3/8 inch bottom clearance.
All cars will be weighed in before the race.

"Last minute weight modifications are sometimes very difficult."

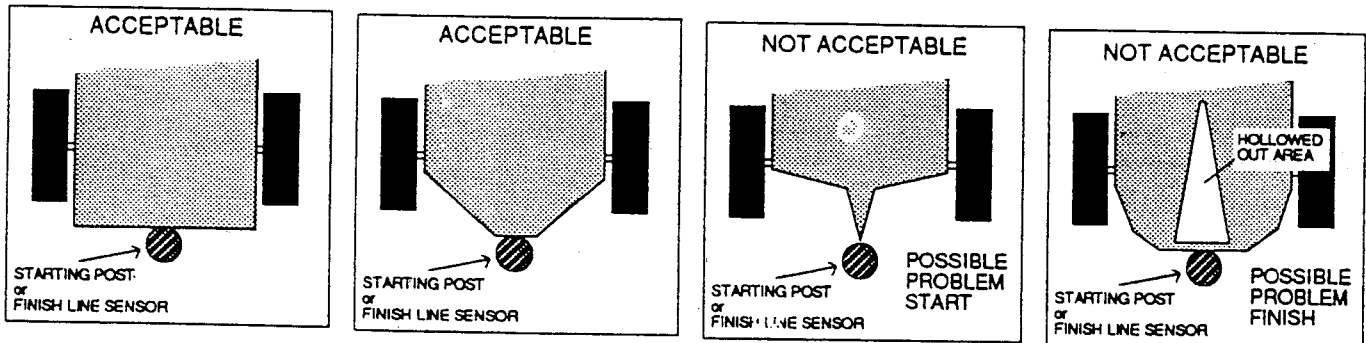
Rule 7 and 8

7. NO Suspensions are allowed. NO Graphite Delivery Systems are allowed. NO Liquid Ballast Weight Systems are allowed.
8. Preformed car bodies (available at hobby stores) are allowed in the PACK Race but not at the Gemini District Finals.

Rule 9

Because the pinewood derby track uses a specific starting mechanism and an electronic judging system, **the car's front edge must rest on the starting post** (a 3/8 inch dowel located in the center of the lane) **AND**

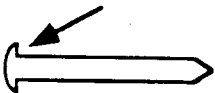
the car's front edge must produce sufficient darkness when passing over the Finish Line Sensor (car detection occurs at the lane center using a 1/16th inch sensor window)



CONSTRUCTION TIPS

TIP 1

For each nail, remove metal burr on inside edge.



TIP 2

To add weight, remove wood and add metal (lead). Use fishing sinkers or lead weights from hardware store or hobby shop.

Secure weights.

TIP 3

The district construction tips say:
"Keep the weights just forward of the rear axle for stability."

TIP 4

Make car roll straight by trying different wheel and axle combinations. Try out on a flat surface about three feet long. Once it rolls in a straight line glue the axles in place being careful to not get glue near the wheels. Let dry upside down.

TIP 5

Add GRAPHITE before the race.

Spin wheels on axles with lots of graphite powder -- repeat...

TIP 6

Do not drop your car.

The wheels may break along with your heart.