

# General Rules and Car Specifications

The following are national guidelines and specifications for the Pinewood derby car taken from *Pinewood Derby Racing*, available from Gospel Publishing or through the [Royal Rangers online store](#). These guidelines and specifications will be used at national and regional Royal Rangers-sanctioned events. Although they are suggested for use at the district level, districts may choose to vary from them.



1. A contestant may enter only one car per racing class.
2. In order to be eligible for competition (either racing or workmanship), a car must fit on and roll down the track without interfering with any other car.
3. Cars (except those entered in the unlimited class) must meet the following specifications. **Note:** Check the kit block before you start to make sure that it does not exceed any of the requirements.

<b>Maximum Length</b> (including all attachments)	7 1/2"
<b>Maximum Width</b>	2 3/4"
<b>Maximum Height</b>	3"
<b>Maximum Weight</b>	5 1/2 oz. (156 grams)
<b>Minimum Under-Car Clearance</b>	3/8"
<b>Minimum Distance Between Wheels</b>	1 3/4"

4. Pinewood Derby cars may be made from [Royal Rangers kits sold by Gospel Publishing House](#). The contestant must use the parts provided in the kit for their intended use.
5. The contestant may add weights to the car in order to bring the car to the maximum allowed weight. Weights must be an integral part of the car. They may be placed inside the block, mounted as an ornament, or be otherwise permanently attached. Nothing may be taped or set on a car. If weights or any other part of a car comes off during a heat and interferes with another car, the heat will be re-run. If the same car or parts leave the track again, the car is disqualified from racing. No heat/race will be delayed while repairs are made.
6. The cars must operate on gravity only. No motors, rubber bands, springs, etc. are allowed.
7. No designs will be allowed that enables the front of the car to extend past the starting gate post. The middle front of each car is to be the longest point.
8. Washers and bearings are prohibited on wheels, as are solid axles.
9. Powdered graphite is the **ONLY** lubricant that can be used.
10. The cars shall not ride on any type of springs.
11. The car must be freewheeling, with no starting devices.
12. No loose materials of any kind (such as lead shot) are allowed on the car.
13. Besides light sanding on the surface of the wheels where they contact the track, you cannot in ANY way change the basic configuration of the wheels. They must look just as they did when the kit was purchased.

14. Details such as the steering wheel, driver decals, racing pipes, etc., are permissible as long as they do not exceed the maximum length, width, and weight specifications.
15. The Pinewood Derby Committee must inspect the car before it may compete. The committee has the right to disqualify any of the cars that do not meet these specifications. If a car fails inspection once, it will only be re-inspected one time.
16. Once a car has been registered, no further work may be done to it. A place should be designated to lubricate and work on cars before they are registered.
17. The following racing classes are recommended:
  - A. Ranger Kids
  - B. Discovery Rangers
  - C. Adventure Rangers
  - D. Expedition Rangers
  - E. Commanders
  - F. Outlaw
  - G. Open
  - H. Grand Champion
18. **Outlaw Class:** As the name implies, this is a class in which you can use all your ingenuity and imagination; however, you must use the parts in the kit for their designed purpose. The class is open to anyone who enters any of the other classes. There are a few simple rules to follow.
  - A. The car must be made mostly from an authorized Pinewood Derby kit (see rule 4 and the section Pinewood Derby Kits) using all the parts in their proper locations.
  - B. The car may not be entered in another class.
  - C. Standard specifications listed in rule 3 are waived; however, the car must fit on the track and run on the track without interfering with other cars.
  - D. No car shall weigh more than 32 oz. (908 grams).
  - E. No car may exceed 12" in length.
  - F. All other Royal Rangers Pinewood Derby rules apply.
19. **Open Class:** This class is open to any family member of a person entering classes A through E. All rules apply. There may be more than one open class depending on the number of entries.
20. **Grand Champion:** All first place winners in each class, except unlimited class, may compete in the final racing after all other races are completed. This competition will be called "Grand Champion."

# Judging

**Paint Job/Design:** There will be two categories of judging in the workmanship/design arena, Best Design and Best Paint Job. In the Best Design category, the age appropriateness of the design and craftsmanship will be considered in the judging. Does a Ranger Kids car design reflect the input and craftsmanship of a Ranger Kid boy etc. The Best Paint job will represent the overall best of use of paint, markers, striping, stains, etc.

- A. The judges will not converse while judging.
- B. Any comments will be in writing and consist of the car number and score using the "Workmanship Judging Scoring Sheet."
- C. Score sheets will be given to the officer in charge as soon as a judge has completed judging.
- D. These are the areas to judge cars in:

## Design Scoring

**Originality:** Was the design the idea of the artist himself? How much creative thought went into the design?

**Craftsmanship:** (The skill the workman showed in cutting, carving, sanding and detailing the car.) Did the owner make the car's extra ornaments or were they something bought and attached?

## Paint Job Scoring

**Color and Appearance:** What is the outward appearance? Is the painting of the car appealing? Are the color and paint even all over? Is the appearance pleasing to the eye?

(Any ties will be broken by the judging official and one other judge, discussion between the two will be allowed)