

Southern Missouri District Royal Rangers Official Ranger Derby Rules

Revised January 2022

1. **Registration Procedures:**
 - a. All cars will be inspected for the proper measurements, weight, and adherence to the rules during the registration process.
 - b. Each car will be given a number at the time of registration and affixed to the car. Each person can enter one car in each class they qualify for.
 - c. All lubing, repair, or weight adjustments must be performed before the car is registered. The participant will not be allowed access to the car once the car has been registered.
2. **Car Specifications:** 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. Cars (except those entered in the unlimited class) must meet the following specifications. Check the kit block before you start to make sure that it does not exceed any of the requirements.
 - a. Maximum Length (including all attachments): 7 1/2"
 - b. Maximum Width: 2 3/4"
 - c. Maximum Height: 3"
 - d. Maximum Weight: 5 1/2 oz. (156 grams)
 - e. Minimum Under-Car Clearance: 3/8"
 - f. Minimum Distance Between Wheels: 1 3/4"
3. **Car Kits:** Ranger Derby cars may be made from any Ranger Derby kit sold by My Healthy Church or from other kits that meet the specifications listed here (except for the Lego class as described below). The contestant must use the parts provided in the kit for their intended use. After market wheels are not allowed.
4. **Weights:** 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. Weights may not be taped or set on a car. If weights or any other part of a car comes off during a heat, 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.
5. **Wheel Lubrication:** Approved child safe lubricants may be used but they cannot leave any residue on the tables or track, or any other place the car will be handled. Approved lubes could be dry graphite, spray or liquid silicon. A designated lubing station will be provided.
6. **Restricted Items:** The following features and practices are considered illegal. No car will be allowed to race if the following features or practices are used.
 - a. Bearings, bushings, or any metal-on-metal contact on the axles or wheel hubs.
 - b. Starting or propulsion devices (only gravity powered cars are allowed).
 - c. Reusing cars or parts from previous years (a new car must be made each year).

- d. No part of the car shall project in front of the starting gate (dowel).
 - e. The original wheel shape (provided in the allowed car kits) cannot be noticeably altered. However the wheels may be smoothed and polished to remove manufacturing imperfections such as seams and lumps.
7. **Competition Classes:** The following racing and non-racing classes are recommended. Contact your race coordinator to determine classes available for your race:
- a. Ranger Kids (boys in grades K-2)
 - b. Discovery Rangers (boys in grades 3-5)
 - c. Adventure Rangers (boys in grades 6-8)
 - d. Expedition Rangers (boys in grades 9-12)
 - e. Leaders (all adult leaders)
 - f. Girls Ministries Mpact Clubs (all girls in grades K-12)
 - g. Unlimited - see below for details
 - h. Open - see below for details
 - i. Lego Cars
 - j. National rules class – see below for details
 - k. Over-All Grand Champion - see below for details
 - l. Workmanship/Design (non-racing)
8. **Unlimited 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 intended purpose. The class is open to anyone who enters any of the other classes. There are a few simple rules to follow. All other Royal Rangers Ranger Derby rules apply:
- a. The car must be made from one of the approved kits (see rule 3 above) and all of kit parts except the wood block must be used for their intended purpose.
 - b. The car must not weigh more than 908 grams (32 ounces).
 - c. All size restrictions (see rule 2) are waived. Cars must fit at the starting gate.
 - d. The car must fit on the track and run on the track without interfering with other cars.
 - e. Reusing cars from previous years is not allowed. A new car must be made each year.
 - f. No part of the car shall project in front of the starting gate.
 - g. Starting or propulsion devices are not allowed (only gravity powered cars are allowed).
 - h. Stock wheel may be reshaped. Bearings and/or bushings may be added.
9. **National Class:** This class is intended to allow participants to make cars that will be competitive at the National Ranger Derby held at National Camporama ever four years. Cars must comply with the official Ranger Derby Rules found on the national Royal Rangers website at RoyalRangers.com/derby.
10. **Leaders Class:** This class is open to all adult Royal Ranger leaders.
11. **Open Class:** This class is open to any family member of a person entering a car in one of the classes listed above. All rules apply. There may be more than one open class depending on the number of entries.

12. **Lego Cars:** This class allows participants to build and race cars created entirely out of Legos. All other specifications and restrictions apply.

13. **Grand Champion:** All first through third place winners in each racing class, except unlimited class, may compete in the final racing after all other races are completed. This competition will be called "Grand Champion."

14. **Racing Rules**

- a. A heat will be re-run if the car falls off the track, interferes with another car or if any added weight or part of a car comes off during the heat. If the same car has the same problem during the re-run, the car will be disqualified from racing. No heat will be held up while repairs are made.
- b. In most cases an electronic timing system will be used to monitor and record the race time for each car on each heat. Each car will be raced on each lane that is being utilized and the time of all heats will be averaged together to obtain a final score. The cars will be ranked from fastest to slowest based on the final speeds.
- c. Any obstruction to the heat (such as your car being raced backwards) must be made immediately after the heat starts and before the heat scores are accepted into the electronic timing system.

15. **Workmanship/Design:** Each participant may enter one car in workmanship for each class they enter. It does not have to be the same car entered in the race, however this must be specified at registration. The car must meet all the same qualification as the car that will be raced (qualifications depend on which class is being entered). The cars will be judged in three areas. The judges will not converse while performing their judging. If necessary, judges may converse after the initial judging to allow them to select the ranking of the first three cars. The judges will indicate their scoring results on the Workmanship Judging Sheet. The score sheets will be given to the officer in charge as soon as the judging is complete.

- a. **Originality (0 to 20)** – the idea of the artist himself. Judges will take into account how much creative thought went into the design of the car.
- b. **Workmanship (0 to 50)** – the skill of the workman in cutting, carving, sanding, and detailing of the car. A deduction of 15 points must be applied if a pre-cut car kit has been used. Judges will take into account the ornaments on the car were made by the owner or just something that was purchased and attached to the car.
- c. **Color and Appearance (0 to 30)** – the use of color and outward appearance. Judges will take into account the overall appearance, the texture of the paint, the paint selection, and the painting quality.

Additional information on Ranger Derby, including tips on car building & design and participant certificates, can be found in the Leader's Resources track of TRaCclub.