



2024 Pinewood Derby Rules

Soaring Eagle District

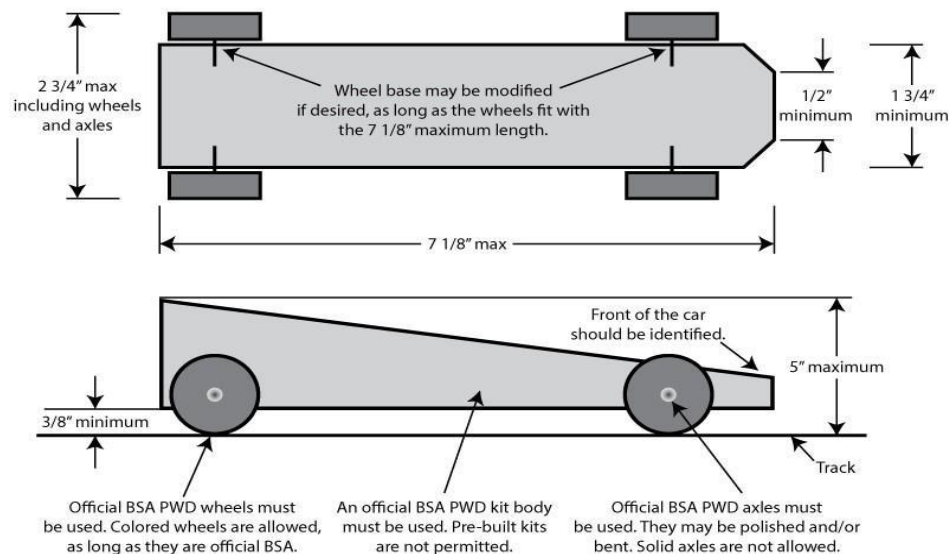
Heart of New England Council



*Please remember that the Pinewood Derby is a recreational event.
The point is not to win, but to have an enjoyable time regardless of the outcome of the race.*

1. Lengths, Widths, & Clearances

- The maximum overall width (including wheels and axles) is $2\frac{3}{4}$ inches.
- The minimum width between wheels is $1\frac{3}{4}$ inches so that the car will clear the center guide strip in its lane.
- The minimum clearance between bottom of car and track is $\frac{3}{8}$ of an inch to clear the guide strip.
- The maximum length of the car, including wheels, is $7\frac{1}{8}$ inches.
- The maximum height of the car, from the wheels, is 5 inches.
- The front center of the car where it meets the race release bar must be at least $\frac{1}{2}$ inch wide. The front of the car shall not be a pointed edge.
- If desired, you may change the wheelbase (the distance between the front and rear axles).



2. Weights, Appearances, and Construction

- A. **Pre-built “kits” are not allowed.**
- B. All cars need to be crafted from the official Boy Scout Pinewood Derby kit that contains a block of wood.
- C. The block of wood must be the main construction material used for the car’s body, and must be used for a majority of the body and chassis design.
- D. For any cars using 3D-printed construction, the 3D-printed parts may be design elements, but cannot be the main body.
- E. The total weight of the car shall not exceed 5.0 ounces.
- F. The readings given by an official race scale at weigh-in shall be considered final.
- G. Cars may be hollowed out and built up to maximum weight by the addition of wood, plastic, fiberglass or metal only, provided that it is built into the body of the car and firmly attached to it.
- H. No loose materials of any kind are permitted in or on the car.
- I. **Note that the car may be inverted and shaken as part of the inspection. There should be no sharp objects or materials (e.g., glass) that could harm handlers or damage other cars or the track.**
- J. Mercury shall not be used for adding weight, as it is a health hazard.
- K. Details such as steering wheel, driver, spoiler, decals, painting, and interior detailing are permitted as long as these details do not exceed the maximum length, width, and weight rules as detailed above.
- L. Cars with wet paint are not acceptable.
- M. Weights may be screwed onto the cars instead of glued for easier adjustment.

3. Wheels and Axles

- A. **Only official Boy Scout Pinewood Derby wheels may be used.** Colored wheels from the Scout Shop are permitted. The molding seam on the wheel’s tread may be removed with a light hand sanding. No other wheel changes (beveling, tapering, thin sanding, wafering, lathe turning, etc.) are allowed.
- B. Sanding a wheel spun on a mandrel is allowed, PROVIDED the molded in tread marks are still clearly visible around the entire circumference and width of the wheel.
- C. The wheels must maintain factory width.
- D. **Official Boy Scout axles must be used** (supplied with the kit or in an official BSA wheel pack).
- E. These axles may be polished and/or bent. Solid axles across the car are not allowed.
- D. Wheel bearings, washers, or bushings are prohibited.
- E. The car may not ride on any springs or suspension.
- F. The car must be freewheeling, with no starting device or other means of propulsion.
- G. Axles may be inserted into existing slots, new slots, drilled holes, or hammered into the car. It is not necessary to use the slots pre-built into the car. Track clearance must be maintained.
- H. It is not necessary that all 4 wheels touch the track; however, **all 4 wheels must be used in the design.**
- I. Wheels cannot be painted, no hub caps. Axles must be visible.



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1. Car Modification

- A. **No modifications should be made to any car after their Unit Race.**
- B. All cars to be raced in the Soaring Eagle District Derby are to be *impounded* until the District Derby Weigh-in Friday, March 30th, 2024, at
- C. Cars will only be handled by the Pit Crew on the day of the derby. If there is an issue with a car the Pit Crew will make modifications with parent supervision before running the heat again. (see Racing Rules and Awards for more information)

2. Axle Lubrication

- A. **Only dry powder lubricant may be used;** other lubricants such as oils, Teflon sprays, and silicone sprays are prohibited.
- B. Cars may not be disassembled (i.e. wheels removed) during lubrication. Once a car has been inspected, no further lubrication will be permitted. No graphite may be applied after inspection or during races. There will be no lubrication between the rounds.
- C. **Cars must be lubricated before inspection; no lubrication will be allowed at the venue.**

3. District Pinewood Derby Event Entry

- A. The race is open to 12 Scouts in each pack.
The Pack is encouraged to send 2 Cub Scouts in each rank of: Lions, Tigers, Wolves, Bears, Webelos and Arrow of Light Scouts. If there are not scouts to do this a Pack may select:
 - Their top 12 from the pack race regardless of the rank of the scout.
 - A top scout from each rank, and then the balance of 6 may be the other top finishers from the Pack, regardless of the rank of the scout.
 - 12 scouts in any other fashion they see fit, Scouts will Race in the Heat determined by Rank.
 - The Pack may register less than 12 if they wish.
 - The arrow of light scouts are welcome to race even if they have crossed over, if they wish to participate.
- B. A \$10 entry fee is required per racer. Registration (see form attached) is to be completed by Pack, not individual racer. Copy to be submitted with payment and also at check-in.
- C. **Payment is to be made by March 22nd, 2024**
 - 1) **Checks:** make payable to **Heart of New England Council** on the memo line enter your pack number and number of cars.
 - 2) **Credit Card:** Online registration and payment are available.
 - 3) **Pack Account:** Full payment can also be made via the Pack account. Please work with the Service Center to ensure full payment.

4. Car Check-In and Inspection

- A. All cars **MUST** be brought in by the Pack (an adult leader) to the on Friday, March 29th, 2024, between 6:00 and 8:00 pm.
- B. Each car must pass inspection by the Official Inspection Team before it may compete. The Inspection Team has the right to disqualify cars that do not meet all rules.
- C. Car owners will be informed of why the car was disqualified and will be given the opportunity to modify car to meet racing standards.
- D. Cars that have not passed inspection by the close of the check-in period (Friday, March 29th, 2024, at 8:00 pm), will not be allowed to race.
- E. Any participant has the right to appeal a decision to the Race Activity Workgroup for an interpretation of these rules. The workgroup, by majority vote, will be the final judge of these rules. In case of a tie vote, the District Chairperson will make the final decision.

5. Racing Rules and Awards

A. Race Day: Saturday, March 30th, 2024, at

B. HEATS

(These times may be adjusted based on the number of scouts pre-registered for each heat, by March 22, 2024.)

- 1) **Lions** race at 9:00 am
 - 2) **Tigers** race at 10:00 am
 - 3) **Wolves** at 11:00 am
 - 4) **Bears** at 12:00 pm
 - 5) **Webelos** at 1:30 pm
 - 6) **Arrow of Light Scouts** at 2:30 pm
- C. Only Race Officials {the “Pit Crew”} and scouts who are currently racing will be permitted into the track area. No one else is allowed unless approved by the Race Activity Workgroup.
 - 1) If a car jumps off the track, that heat will be run again. If it consistently jumps off the track, and is deemed to have a mechanical problem, the problem will be dealt with accordingly.
 - 2) If a car interferes with another car, that heat will be run again.
 - 3) If a car suffers a mechanical problem (i.e. it loses an axle or breaks a wheel), a reasonable amount of time, as determined by the Race Activity Workgroup, will be allotted for repairs, and the heat where the failure occurred will be run again. This time may not be used to apply lubrication.
 - D. An electronic finish line will be used, and it will determine the winner of each race. Human judges will watch each race for any track or car malfunctions but will not decide the winner.
 - E. Race format will be determined by the Race Activity Workgroup and published prior to the event.
 - F. Individual trophies will be awarded to the top **two** finishers in each rank, and a District Trophy will be presented to the Cub Pack with the fastest car.
 - G. Un-Scout-like and unsportsmanlike conduct by any participant, or spectator, is grounds for disqualification and expulsion from the competition and event area.