

Pack



505

It's Pinewood Derby time! Please adhere to the following rules when designing and building your cars. Each car will be inspected at "check-in" to ensure that the following weight and dimension criteria are followed. Any cars not passing inspection will be given the opportunity to adjust the weighting / dimensions at the "fix-it" station. However, in order to race, all cars must pass inspection. The inspectors are strict and will not accept bribes.

Standard Speed, Family/Sibling Speed, and Adult/Leader Speed Construction Rules

- Materials
 - Cars will be built from the Basic Pinewood Car Kit – the basic kit comes with a wooden block, four axles, and four standard wheels. This is the kit provided by the Pack and that is available at the Scout Shop.
 - Car body - You may NOT use pre-fabricated car kits, pre-cut wood blocks, etc.
 - Filler, lead weights, putty, etc. – You are allowed to remove wood and replace it with some other material as long as that material is firmly affixed to the body.
 - Wheels and Axles - You may NOT use any special wheels or axles, however you may adjust the location where the wheels are placed along the chassis. The Scout Shop sells "competition wheels" but they are not allowed. It's possible on-line to purchase pre-polished axles and prepared wheels but this is NOT allowed.
 - Weights and aesthetic accessories – you are allowed to use any type of paint, stickers, or glued-on ornaments as long as they do not violate any of the dimensions or other rules. For example, small toys or car accessories like steering wheels and exhaust pipes are allowed. Extra weights can be put inside the body or glued to the outside.
- Weight and Dimensions
 - The maximum weight of the entire car is **5.0 ounces**. The Pack scale used at weigh-in is the "official" weight.
 - Maximum width is 2 ¾ inches – Maximum length is 7 inches.
 - Minimum width between wheels is 1 ¾ inches
 - Minimum track clearance to the bottom of the car is 3/8 inch. If you design your car to have a lowered-suspension look, it won't work on the track and won't pass inspection.

- Maximum height (including accessories) is 4 inches.
- The track pin for starting must touch the very front of the car. No forks or other methods may be used to allow a portion of the car to protrude beyond the pin.
- Axles and Wheels
 - No springs, ball bearings, spacers, or bushings are allowed. Only the wheels and the axles are permitted.
 - Only dry powdered lubricants such as graphite may be used. Excess lubricant must be wiped off the body and wheels before inspection.
 - Axle prep:
 - Axle heads and shafts may be ground or filed to remove burrs or mold marks.
 - Axle heads and shafts may be polished to minimize friction.
 - The axle shaft may not have a diameter less than 0.085 inches. Reasonable grinding and polishing should not cause any problems.
 - Wheel Prep:
 - Only the tread surface and the width of the wheel may be altered.
 - The tread surface must remain flat and parallel with the track surface and cannot be altered to another shape such as a U or Slant.
 - The tread width may only be modified on the side facing the car.
 - Tread width may not be less than 0.275 inches.
 - Wheel diameter may not be less than 1.15 inches or more than 1.2 inches.
 - Lightly sanding or polishing a wheel should not violate any of these limits.
- Markings – Please write your child’s name and den number in black marker on the bottom of the car! This helps if we get confused during check-in.

Check-in Inspection

- All cars will be inspected during check-in.
- You may attempt to fix a car that fails inspection and re-submit it before Check-in closes. If a car fails inspection but is still viable for running on the track (e.g. does not violate any dimensions that would prevent it from rolling) we will attempt to run the car without counting it towards the official race results.
- Car inspection using the Pack measurement tools includes the following:
 - Visual inspection to look for any violations, loose parts, etc.
 - Weight Check – we use a scale with a 5.0 oz tare weight to make this as accurate as possible.
 - Dimension check – Checking max length, width, height with our dimensions box. Checking minimum ground clearance and wheel separation.
 - Wheel and axle check – Confirm wheel tread, diameter and width are within the rules. Ensure wheel and axle modifications and lubrication are legal.

Demolition Construction Rules

- Materials
 - Cars will be built from the Basic Pinewood Car Kit – the basic kit comes with a wooden block, four axles, and four standard wheels. This is the kit provided by the Pack and that is available at the Scout Shop.
 - Car body - You may NOT use pre-fabricated car kits, pre-cut wood blocks, etc.
 - Filler, lead weights, putty, etc. – You are allowed to remove wood and replace it with some other material as long as that material is firmly affixed to the body.
 - Wheels and Axles - You may NOT use any special wheels or axles, however you may adjust the location where the wheels are placed along the chassis. The Scout Shop sells “competition wheels” but they are not allowed. It’s possible on-line to purchase pre-polished axles and prepared wheels but this is NOT allowed.
 - Weights and aesthetic accessories – you are allowed to use any type of paint, stickers, or glued-on ornaments as long as they do not violate any of the dimensions or other rules. For example, small toys or car accessories like steering wheels and exhaust pipes are allowed. Extra weights can be put inside the body or glued to the outside.
 - No explosives, incendiary devices, or accelerants
 - The car may not be designed with a “ramp” on the front bumper such that the opposing car will be caused to launch off the track on impact
- Weight and Dimensions
 - The maximum weight of the entire car is **10.0 ounces**. The Pack scale used at weigh-in is the “official” weight.
 - Maximum width is 2 ¾ inches – There is no set maximum length.
 - Minimum width between wheels is 1 ¾ inches
 - Minimum track clearance to the bottom of the car is 3/8 inch.
 - There is no maximum height
- Axles and Wheels
 - No springs, ball bearings, spacers, or bushings are allowed. Only the wheels and the axles are permitted.
 - Only dry powdered lubricants such as graphite may be used. Excess lubricant must be wiped off the body and wheels before inspection.
 - Axle prep:
 - Axle heads and shafts may be ground or filed to remove burrs or mold marks.
 - Axle heads and shafts may be polished to minimize friction.
 - The axle shaft may not have a diameter less than 0.085 inches. Reasonable grinding and polishing should not cause any problems.
 - Wheel Prep:
 - Only the tread surface and the width of the wheel may be altered.

- The tread surface must remain flat and parallel with the track surface and cannot be altered to another shape such as a U or Slant.
 - The tread width may only be modified on the side facing the car.
 - Tread width may not be less than 0.275 inches.
 - Wheel diameter may not be less than 1.15 inches or more than 1.2 inches.
 - Lightly sanding or polishing a wheel should not violate any of these limits.
- Markings – Please write your child’s name and den number in black marker on the bottom of the car! This helps if we get confused during check-in.

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- All cars will be inspected during check-in.
- You may attempt to fix a car that fails inspection and re-submit it before Check-in closes. If a car fails inspection but is still viable for running on the track (e.g. does not violate any dimensions that would prevent it from rolling) we will attempt to run the car without counting it towards the official race results.
- Car inspection using the Pack measurement tools includes the following:
 - Visual inspection to look for any violations, loose parts, etc.
 - Weight Check – we use a scale with a 5.0 oz tare weight for the speed cars and a 10 oz tare weight for the demolition cars
 - Dimension check – Checking max length, width, height with our dimensions box. Checking minimum ground clearance and wheel separation.
 - Wheel and axle check – Confirm wheel tread, diameter and width are within the rules. Ensure wheel and axle modifications and lubrication are legal.