



DERBY MONKEY GARAGE

Atomic Wedgie Pinewood Derby Car Kit

NOTE: Follow each step in proper order

Derby Monkey Garage

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Some Required Tools & Supplies

Wood Glue

Wood Filler

Sandpaper 100, 150, 220 & 400 grit

Primer/Sealer – Spray or Brush

Body Paint – Spray or Brush

Weigh Scale to 5oz

Particle Mask & Eye Protection

- I. Using a rasp and coarse grit sandpaper (100), perform any desired sculpting and rough sanding to the body.
- II. Sand car body with fine grit sandpaper (220) then extra fine grit (320 or 400).
- III. Cut lead wire, insert and weigh all car parts to make sure it does not weigh more than the rules permit. Take into consideration the weight of the glue and wood filler required to finish the car. Adjust weight size as needed.
- IV. Glue the lead segments into weight pockets at the rear of the body.
- V. Fill in the weight pockets with wood filler. Allow to dry and sand smooth.
- VI. Apply primer/sealer to the car body and allow to dry completely.
- VII. Sand with extra fine grit sandpaper (400).
- VIII. Repeat steps VI and VII as often as desirable or until the finish is smooth and wood grain is no longer visible.
- IX. Apply paint and allow to dry completely.
- X. Apply decals according to directions.
- XI. Apply a gloss/clear coat and allow to dry completely.
- XII. Prepare the Axles**
 - A. If your kit includes stock BSA axles you will need to file away the crimp marks on the axle shaft and the inside of the axle head.
 - B. Then you should polish the axle shaft and head with extra fine sandpaper up to at least 600 grit. For an even better finish you should polish your axles with up to 12, 000 grit sandpaper.
 - C. For how-to videos and instructions on axle preparation you should go to FastPinewoodDerbyTips.com.
 - D. If your kit includes our Derby Worx Pro BSA Speed or Grooved axles then they have been pre-polished using up to approximately 600 grit sandpaper. These are ready to race as is. However, they can be improved with a thorough polishing up to 12,000 grit sandpaper and finishing off with Monkey Jam Premium Axle Polish.
 - E. If your kit includes our nickel coated axels then they are already super smooth and ready to race. Again you can further polish these axles by using 6,000 to 12,000 grit sandpapers and polish.
 - F. You might want to check out the several axle polishing kits at DerbyMonkey.com
 - G. Place a 1 to 2 degree bend in right front axle at the point where the axle extends from the body.
 - H. If you're going to cant your axles then you should do so after the axles have been polished.
- XIII. Prepare the Wheels**
 - A. The speed wheels included in your kit require very little preparation.
 - B. It is a good idea to polish the wheel bore using Micro-Gloss according to the instructions.
 - C. Clean the wheels thoroughly

XIV. Lubricate Wheels and Axles According to Race Rules

- A. If using graphite: More is Best... Pack the wheel bore with graphite. Place axle in wheel bore and spin wheel several times. Then pack the wheel bore with graphite again.
- B. If using oil such as Krytox: Less is Best... Place two small drops on axle. Place axle in wheel bore and spin wheel several times. Remove wheel. Wipe off excess oil from axle.

XIV. Install the Wheels and Axles and Align the Car

- A. Straight Alignment: Roll the car on a flat and slightly inclined surface. By turning the right axle with plies, adjust the alignment until the cars rolls perfectly straight over a distance of six feet.
- B. Rail Riding Alignment: Roll the car on a flat and slightly inclined surface. By turning the right axle with plies, adjust the alignment until the cars rolls to the left one inch over a distance of six feet.

XV. Weigh the finished car to make sure it does not exceed what your rules will allow (usually 5 oz).



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PINWOOD DERBY CAR KIT
BUILDING INSTRUCTIONS**

