



AMUGderby Rules and Race Procedures

November 13, 2026 - Revision

Race Date: Wednesday, March 18, 2026

Location: TBD

Check in Time: 4:00 - 5:45 pm PST

Race Start Time: 6:00 pm PST (start time may be adjusted prior to the race)

Registration: TBD

Race Categories: Standard and Open

Eligibility

Participants must be registered AMUG attendees.

There is not a restriction on how many entries may be made by the same company, however only one entry per attendee is allowed.

Body Material/Fabrication

Main body of the car must be 3D printed in metal or polymer material.

Main body of the car may be painted or coated.

Any additions, such as weights, must be securely attached to the main body of the car.

Car Dimensions

Overall length (including wheels) shall not exceed 7 inches.

Overall width (including wheels) shall not exceed 2.75 inches.

Overall height shall not exceed 4 inches.

Must have 1.75-inch minimum clearance between the wheels.

Must have 0.375-inch minimum ground clearance (body to track).

Front Edge of Car

When placed in the starting position, the front edge of the car will rest on a retractable starting pin that protrudes upward from the center of the track. No part of the car (including the front wheels) may extend forward beyond the starting pin. The front edge of the car should be at least 0.5 inch wide at the center of the car.

Race Procedure

Car must pass inspection prior to racing.

Cars that do not pass inspection may be modified to meet the criteria.

Once a car passes inspection, only race committee members may handle it.

If the car loses a wheel or is otherwise damaged, the racer may make repairs within 5 minutes.

Repaired cars must pass inspection prior to racing again.

Each car will race a total of 4 qualifying runs, with an average taken of the run times (minus the slowest time).

The top 4 average times in each category will advance to the championship round, for a best-of-one-round race (this may be best of 4 depending on time).

Prizes will be awarded to the Championship winner in each category, and the "Best Design" winner.



Best Design to be chosen by volunteers from the Cub Scouts.

Standard Category

Car Weight

Weight shall not exceed 6 ounces.

Wheels and Axles

Official BSA® wheels kits (wheels + axles) must be used and can be purchased [online](#).

Axles may be sanded and/or polished to remove blemishes.

Only graphite powder may be used to lubricate the axles. No liquid lubricants are allowed.

Axles may not be bent or angled.

No adjustment of the wheels is allowed (e.g., cutting, beveling, drilling or rounding).

Car must use all 4 wheels.

At least 3 wheels must be flat on the track or gage at inspection.

Car Modifications Not Allowed

No propellants or propulsion mechanisms may be used.

No loose items are allowed on the car.

Open Category

Car Weight

Weight shall not exceed 10 ounces.

Wheels and Axles

Wheels must be unfilled polymer (no metal, glass, carbon, or ceramic filled allowed).

Any surface that will come in contact with the track must be unfilled polymer.

Bearings and axles can be purchased or designed and printed. Secondary machining processes are allowed.

Only graphite powder may be used to lubricate the axles. No liquid lubricants are allowed.

Car Modifications Allowed

Springs or other mechanical propulsion can be utilized. All items must be permanently attached to the car (no loose items that fly off at start or during the race).

No limit on the number of wheels used.

Surface to hold starting pin may be located at any point along the length of the car.

Car Modifications Not Allowed

No electronic, chemical, or pressurized propulsion mechanisms may be used (No CO₂ cartridges!).

No loose items are allowed on the car.

No extension of the length of the car is allowed.

Race officials will have final say in the safety of those participating and in attendance.

Race Start

Cars utilizing propulsion cannot be held by anyone at the start. Any mechanism must be able to be held by the starting pin without human interference and safely stay in position.

Priming must be simple and quick. No re-loading, disassembly/reassembly is allowed.



Questions

Contact us at info@amug.com.