Pinewood Derby Rules

Engineers Week Community Night
21 February 2019
TSC International Lounge
6:30 PM to 8:30 PM

1.0 General Event and Registration Rules

1.2 To compete, participants must register with event staff; then check their cars in for evaluation.

1.2 All cars must pass a full rules and safety inspection.

1.2.1 If at any time there is reason to believe a car may risk safety, damage to individuals, track or to the venue, or is found to be in violation of any rule, purposefully or inadvertently cheating, the participant entering the car may be disqualified.

1.2.2 After cars have passed inspection by a race official and are deemed race-worthy, they will be placed on a table or in a holding area where they cannot be adjusted or tampered with.

1.3 Both BSA Class and Open Class events will be conducted using a bracket system. The size of the brackets will be determined on the day of the event depending on the total participation and time constraints. The brackets will be double or single elimination, as determined by the officials. Cars and participants will be placed on the bracket as they check-in. There will not be a qualification round; therefore cars will be ordered randomly on the bracket.

1.4 Open track time will be determined by race officials. If there is an open track time it will occur before and/or after the event.

1.5 The order of events will proceed as follows, and is subject to change:

1) Open racing (Optional)
2) BSA Class Competition
3) BSA Class Awards
4) Open Class Competition
5) Open Class Awards
6) Open Racing (Optional)

2.0 “BSA Class” car rules

2.1 Car width shall not exceed 2-3/4 inches.

2.2 Car length shall not exceed 7 inches.
2.3 Car must have 1-3/4” inches of clearance between the wheels.

2.4 Car must have 3/8” clearance underneath the body so it does not rub on the track.

2.5 Car’s weight shall not exceed 5 ounces.

2.6 Car’s axles, wheels, and body shall be from the materials provided in the kit.

2.6a) Approved kit brands are Pine-Pro Brand, “Pinewood Derby” kits from Revell, and the Official BSA Pinewood Derby Car Kit.

2.7 Wheel bearings, washers, and bushings are prohibited.

2.8 No lubricating liquids or oils may be used. Axles may be lubricated with powdered graphite or silicone.

2.9 The car shall not ride on any kind of spring.

2.10 The car must be free-wheeling, with no starting devices.

2.11 No loose materials of any kind are allowed in the car.

3.0 “Open Class” Rules

3.1 Car width shall not exceed 2-3/4 inches.

3.2 Car length shall not exceed 7 inches.

3.3 Car must have 1-3/4” inches of clearance between the wheels.

3.4 Car must have 3/8” clearance underneath the body so it does not rub on the track.

3.5 Cars must not use any flame or fire at any time.

3.6 Cars must not risk damage to the track, individuals or the venue.

3.7 Cars must not interfere mechanically with any other car.

3.7.1 If during racing, the thrust from a car using a ducted fan or CO2 cartridge blows another car off of the track or backwards on the track, race officials will judge the lead amount the offending car had on the disturbed car and based on their analysis will either repeat the heat, move forward with the race, or disqualify the offending car. Cars can use non-flammable propellants which may disrupt other cars; however, if a neighboring car is disrupted because of a sideways or perpendicularly blowing propellant or any device or action believed to purposefully disrupt neighboring cars, the participant and car may be disqualified.

3.8 Cars cannot be handled or touched by participants or agents of the participant after being placed on the track.

3.8.1 Cars must be able to sit on the track without assistance for the necessary stage time prior to launch by the race official which could range from 1-15 seconds.
3.8.2 Cars operating in this class that use batteries or other devices for power or acceleration may be tuned by the participant or agents of the participant between races and directly prior to placing the car on the track for launch. However, cars cannot be touched after the race official requests the cars be placed on the track.

4.0 Awards

4.1 Awards will be given following the completion of each class competition.

4.2 Winners must be present to receive the award.

4.3 BSA Class Awards

4.3.1 Awards will be given to 1st, 2nd, and 3rd place winners by time, and the best visual design.

4.4 Open Class Awards

4.4.1 Awards will be given to 1st, 2nd, and 3rd place winners by time, and the best visual design.

5.0 Miscellaneous

5.1 These rules may be adjusted based on safety, and/or requirements set forth by the venue or the owner of the track.

5.2 Participants should understand that this event is run by volunteers whose goal is to encourage safe and innovative engineering.

5.3 This event can be altered or cancelled by its overall governing authorities which are USU American Society of Mechanical Engineers and USU College of Engineering.