



OCTOBER 8<sup>TH</sup> & 9<sup>TH</sup>

[leedstown.org](http://leedstown.org)  
Roxann @ 705-0139



## SOAPBOX DERBY RULES AND REGULATIONS

### Derby Car Categories:

Youngster Class: ages 6 – 11  
Teen Class: ages 12 – 16  
Adult Class: ages 17 & up

Scout Troop Class  
Commercial Class  
Fire Dept. Class

Cars used in the age categories may be used in all 3, but driven only once per age class.

Cars built for the Scout Troop, Commercial, and Fire Department Categories will compete only within that particular class.

### 1. **Gotta Go!**

Each derby car must be gravity powered. No motors or engines. There few limitations on size, materials or designs. Cars are typically 4ft to 6ft long, 2ft to 3ft wide, generally made of wood, and must not weigh more than 100 lbs. (cart only). When using wood it is suggested that you use screws rather than nails and be sure to use plenty of wood glue. No spoked tires will be allowed in any class.

### 2. **Gotta Turn!**

Simple pivot steering is the most basic and common steering system. Basically, the front axle is a solid piece that rotates about a single pivot in the center. This system is the most simple to construct and is quite adequate since you will not need a big turning radius.

Four bar linkage is like the steering mechanism that you might find in your automobile. It is more complex and harder to construct and thus it is seldom recommended. Whatever method of steering you use it is most wise to limit it to the range of your car. The derby will be run on a fairly straight course so that there will be little need for sharp turns. The wheels must turn the same way as the steering wheel does. Please do not design your car to turn on a dime, it is not safe and may cause your car to flip.

3. **Gotta Stop!**

Skid pad on the wheels is a very basic, yet very effective braking method. In this method, you setup a pad or brake shoe that rubs against the wheels to stop the car. This is the most preferred method for cars made from scratch because of its effectiveness and simplicity.

A skid pad on the ground is similar to the first option, but instead of the pad contacting the wheels, it contacts the ground. This method is a little more complex to construct and probably less effective than the pad on the wheels method. However, this is the method that was first used in soapbox racers.

Caliper brakes on the wheels are like your basic bicycle brakes. This method works great although the construction needs to be fairly concise for the brakes to be effective.

Anchor or parachute could be used - but, *Just for fun!* Regardless of the braking system that you choose the most important thing is that the car must be able to stop. Good brakes will go a long way in preventing crashes.

4. **Gotta wear a Helmet!**

Helmets are a must! Please do not alter helmets in any way that would change their effectiveness.

Cars will not be allowed on the track unless the driver is wearing a helmet. Elbow pads are also strongly encouraged.

5. **Gotta have Permission!**

Be sure to pick up an entry form/permission slip before the race. All drivers under the age of 18 must have the permission slip signed by their parent to enter the derby. Entry forms can be turned in to the Leeds Town Hall by 1:00 PM on October 7<sup>th</sup>. Entry fees may be paid Friday October 8<sup>th</sup> from 5 pm to 9 during the inspection period. Please note that permission slips must be signed in order to race.

**If The Car Stops in Mid-Track:**

\* Please note that uneven pavement and the gentle slope of our main street means that some lighter-weight combinations of small children and cars may need a helping hand to finish the race. This is not only allowed but encouraged. It is embarrassing to be sitting in the middle of the lane having run out of steam. Each cart is allowed a pit crew of one person who may push from behind to get the cart moving once it has stopped. However... if pit crew pushes a car *before* it has stopped the car will be disqualified. This is as much a race of driving skill as it is of car construction.

**Car Pick-Up:**

All cars must report to the Leeds Town Hall on Friday October 8<sup>th</sup> from 5pm to 9 pm for a safety inspection. The inspection will check to verify steering and proper breaking. Once passed, the car will be certified ready to race at which time each car will be put in the Town Hall for the night. Owners will be able to pick up cars by 8 am on Saturday October 9<sup>th</sup>