

# SOAPBOX DERBY RULES AND REGULATIONS

There are five basic requirements for derby cars and participants:

## 1. Gotta Go!

- ❖ All cars must have 4 wheels. Each derby car must be gravity powered. No motors or engines. There is no limitation on size, weight, materials or designs. **Must have four (4) wheels!** Cars are typically 4 ft. to 6 ft. long and 2 ft. to 3 ft. wide and generally made of wood. When using wood it is suggested that you use screws rather than nails and be sure to use plenty of wood glue.

## 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 a 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 not wise to limit it to the range of your car. The derby will be run on a straight course so that there will be little need for sharp turns. 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 set up 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 a 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 need to be turned into the City Hall by 5:00 PM on September 8<sup>th</sup>.** Please note that permission slips must be signed in order to race.



**SOAPBOX DERBY  
ENTRY FORM/PERMISSION SLIP**

Name of Participant	Age
Address	Telephone number
Please list identifying information on your car. (Color, name or number)	
Name of Parent or Legal Guardian	Telephone number
<p>Please check each box as you have reviewed the information.</p> <ul style="list-style-type: none"><li><input type="checkbox"/> I have read and understand the rules and regulations of the derby and agree to comply.</li><li><input type="checkbox"/> My car has been constructed as outlined (has working steering and brakes) and is considered to be eligible to drive.</li><li><input type="checkbox"/> I agree to conduct myself appropriately, demonstrating good sportsmanship and refraining from inappropriate conduct.</li></ul>	
<p>I give permission for my son or daughter, _____ to participate in the Soapbox Derby and will not hold Ferron City or City employees responsible should an accident occur.</p> <p>_____</p> <p>Signature of Parent or Guardian</p>	

