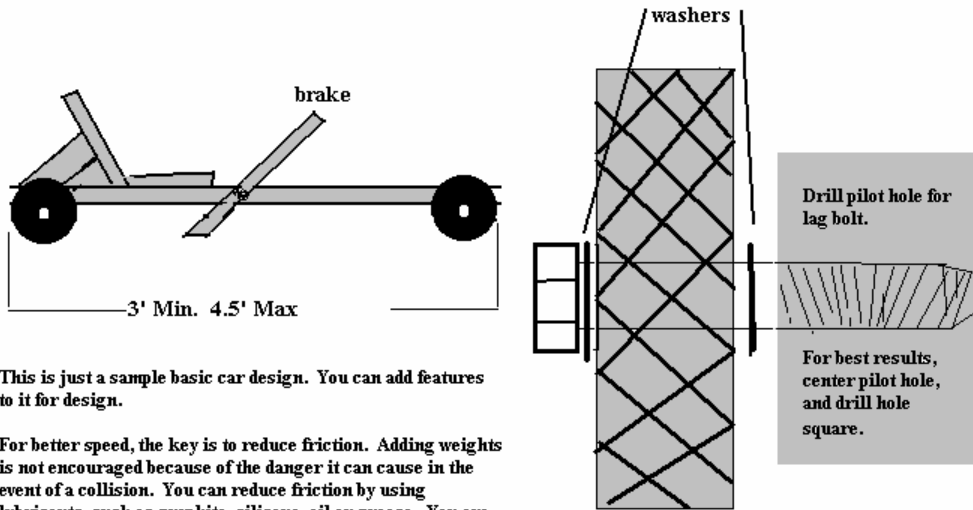
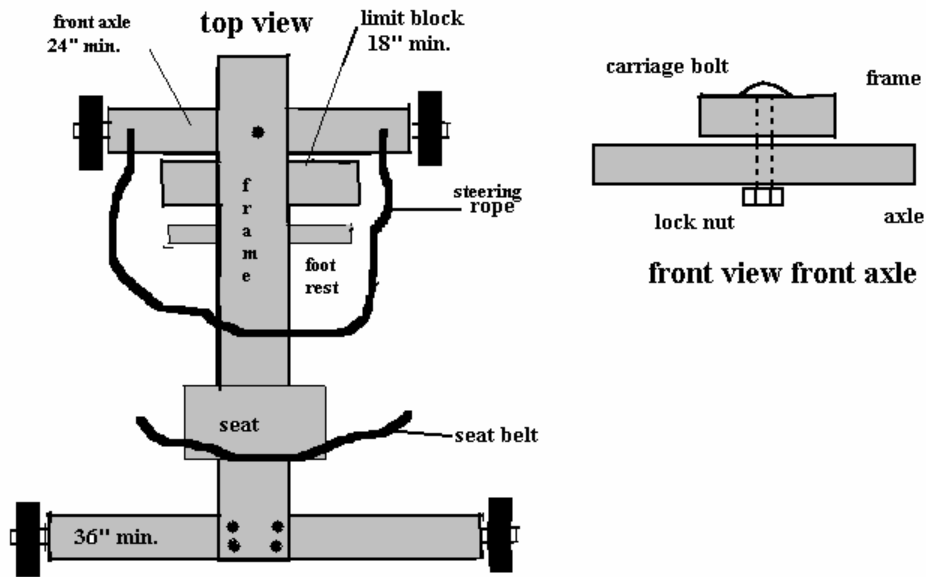


# Basic Soap Box Derby Car



This is just a sample basic car design. You can add features to it for design.

For better speed, the key is to reduce friction. Adding weights is not encouraged because of the danger it can cause in the event of a collision. You can reduce friction by using lubricants, such as graphite, silicone, oil or grease. You are free to lube after registration or make repairs to your car as needed.

## SOAP BOX DERBY CAR CONSTRUCTION SPECIFICATIONS

**SEAT AND SEAT BELTS.** All cars must have a seat securely fastened to the frame of the car. An old child safety seat can work. Also, all cars must have a belt securely fastened to the car. An old belt can be used or a rope. If you are really adventurous, get a seat belt from the junk yard.

**FRAME.** Car frames must be made of wood. No metal frames. Typically, a 2x6 or 2x8 can be used, but any sturdy, wood material or design can be used. The frame must be no shorter than three feet and no longer than four and a half.

**AXLE LENGTH.** Front axle MINIMUM 24 inches; Rear Axle MINIMUM 36 inches. The front axle should be attached with the bolt supplied with the kit, but if you lose it you may use another 3/8th inch bolt and lock nut. The rear axle should be secured with three or more screws or nails.

**LAG BOLTS.** Only the lag bolts supplied with the kits will be permitted. Also, no more than two washers per wheel and no more than one washer on each side of the wheel. Use of stainless steel lag bolts is forbidden.

**WHEELS** Only wheels from the kit can be used. Wheels may not be modified except as follows: 1. Casting marks can be removed from the tread; 2. A hole may be drilled in the hub for lubrication. Absolutely no bushings or bearings.

**STEERING.** Your car must be equipped with a means for steering. The simplest steering mechanism is a rope attached to each side of the front axle. More mechanically inclined dads build steering wheels. Another possibility is attaching blocks to the front axle for your child's feet. Do not use levers for steering.

**LIMIT BLOCK. THIS IS IMPORTANT.** A limit block made of 2x4 lumber no less than ONE AND A HALF FOOT long must be attached with three or more drywall screws to the frame of the car. The limit block must be centered on the frame and placed no more than ONE-QUARTER OF AN INCH BEHIND THE FRONT AXLE. The purpose of the limit block is to prevent oversteering, which can cause the car to overturn.

**FOOT REST.** A foot rest must be provided for the driver. This can be done using a piece of wood across the top of the frame. The front axle/limit block may also be used as the foot rest depending on the size of the driver and car.

**BRAKES.** Brakes are optional. A simple lever may be affixed to the frame.

**SAFETY APPAREL.** All racers must wear the following: 1. Helmet with strap; 2. Long pants and long sleeve shirts; and 3. Gloves.