

Cubmobile Derby

Date: Saturday, May 10th, 2025

Registration is open!

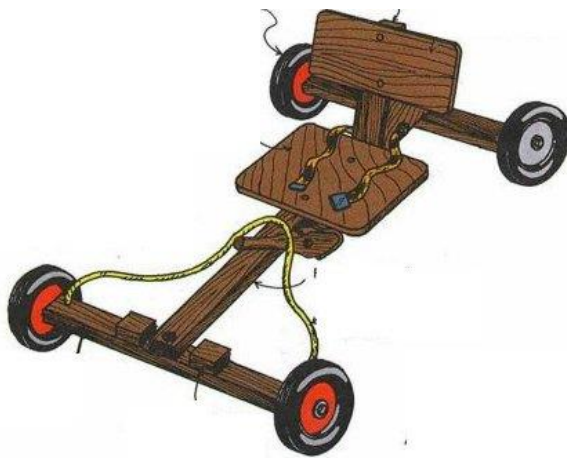
- Cost is \$10.00 per scout
- Check in begins at 8:30 AM
- Opening at 9:15 AM Races Start promptly at 9:30 AM
- Racers may check in until to noon to race
- Races end at 2:00 PM

Settlers Cabin Wave Pool Parking Lot

(Use the Back entrance closest to the Ambulance entrance)

All Racers Will.....

- ◇ Follow the Rules given to each Pack at Roundtable
- ◇ Be in uniform or class B for the race
- ◇ Race all push events as driver and pusher (Tigers are drivers only...Adult Partners are pushers)
- ◇ Race gravity event down the hill 2 times
- ◇ Have a Fantastic Time at our Annual Cubmobile Derby!



The Frontier District

The Great Race 2025

1. **Gravity Race – Timed Event Downhill**

- ◇ Each scout from the race team will have 2 opportunities to race
- ◇ Start point will be varied by rank – Tiger, Cub (Wolf & Bear), Webelos
- ◇ Cars are held in position by teammates until the starter signal
- ◇ The timer begins timing device at the starter signal to the point the drive crosses the finish line
- ◇ False start rule applies
- ◇ False start is when the Cubmobile is in motion prior to the starter signal (determined by the judge)
- ◇ Best time of all runs will be recorded
- ◇ Judges' rule are final

2. **Monte Carlo Relay– Timed Event Circular Track**

- ◇ Each scout from the race team will take a turn as driver and pusher
- ◇ Start at the starter signal
- ◇ False start rule applies
- ◇ Each driver/pusher will go around 1 time
- ◇ There will be an exchange at the starting point of driver/pusher and continue in this manner until all scouts have had a turn driving and pushing
- ◇ Time will begin with the starter signal and stop when the last pusher crosses the finish line
- ◇ Penalties will be assessed for going off the track
- ◇ Total time will be divided by the number of participants on the team
- ◇ Average time is recorded for score
- ◇ 10 second penalty time will be add to the average score per infraction
- ◇ Judges' rule are final

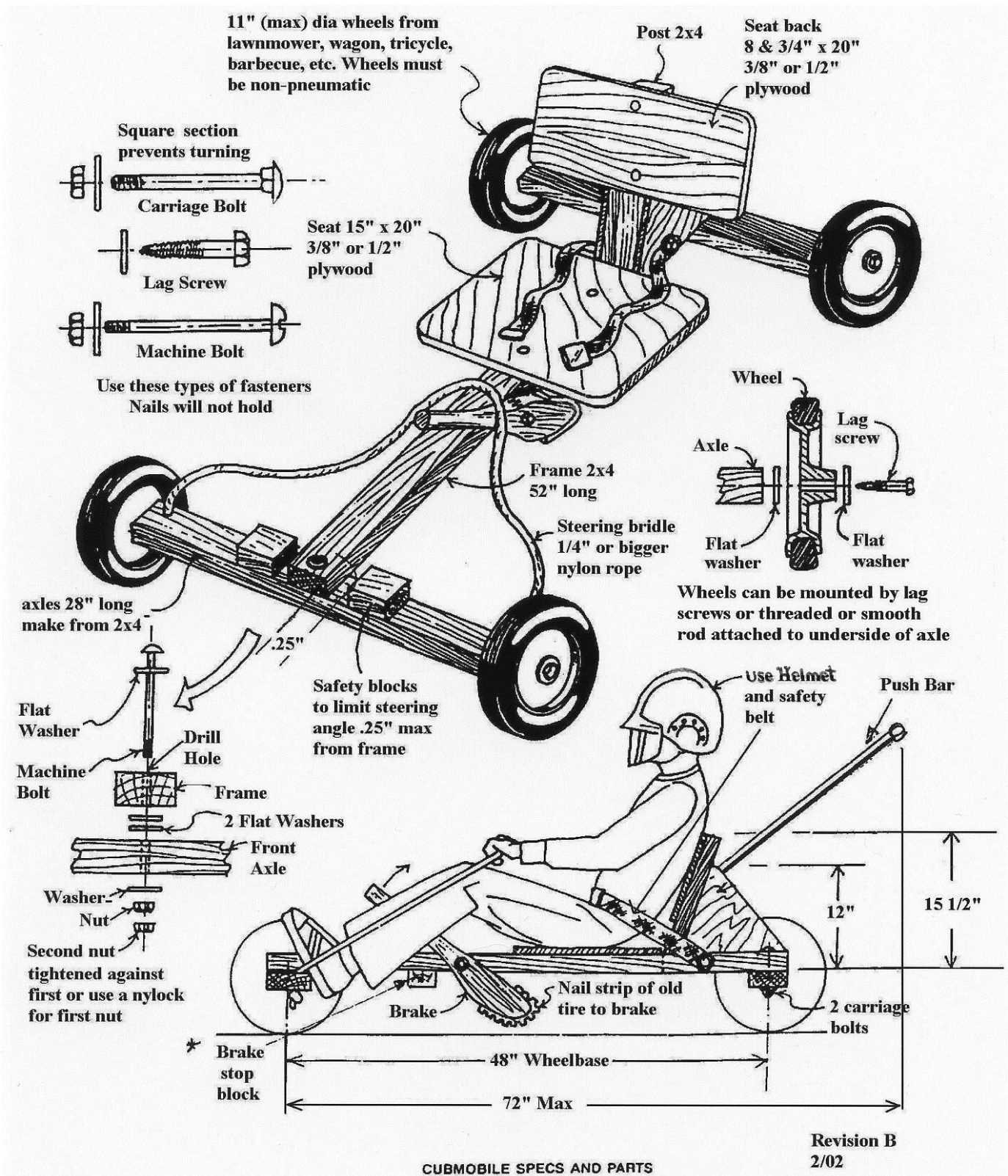
3. **Serpentine Race - Timed Event Slalom around 5 cones and back**

- ◇ Each scout from the race team will take a turn as driver and pusher
- ◇ Start at the starter signal
- ◇ False start rule applies
- ◇ Time will begin with the starter signal and stop when the last pusher crosses the finish line
- ◇ Best time of all runs will be recorded
- ◇ Judges' rule are final

4. **Drag Race – Distance event Push and Steer for distance**

- ◇ Each scout from the race team will take a turn as driver and pusher
- ◇ Pusher will push to designated release point
- ◇ Foot fault will be called back
- ◇ 2nd foot fault will result in a disqualification of that leg
- ◇ The driver must steer for distance and stay in lane
- ◇ Distance is marked when the car comes to a complete stop or the car goes off course
- ◇ Best distance of all runs is recorded for score
- ◇ Judges' rule are final

The Frontier District The Great Race 2025



Cubmobile Spec Sheet

The Frontier District The Great Race 2025

Race team may include 2-4 scouts, except Tigers who must be teams of 3-4. Each Cubmobile may accommodate up to 2 teams.

1. Each Den will build one Cubmobile. The participants will all race in their Den Cubmobile. The participants will all race in their Den Cubmobile not to exceed 8 participants per Cubmobile.
2. Wheels must not exceed 10 inches in diameter. All wheels must be equipped with solid rubber tires (non inflatable).
3. Car frame is made from 2-by-4-inch construction lumber.
4. The car will be equipped with a push bar handle.
5. The overall length of the car, from front axel to end of push bar, is a maximum of 6 feet; the wheel base, axel to axel, is a maximum of 4 feet.; the width of the car, outside of wheel to outside of wheel, is a maximum 36 inches a minimum of 28 inches
6. Use roundhead 1/4-inch bolts to hold frame. Screws are a second choice. Nails are not permitted, because they may work loose.
7. All cars must have a seat with braced backrest, so the Scout can comfortably steer with his feet.
8. Steering is done with the feet, which are placed on the front axle, and by the hands holding a rope fastened to the front axle. Steering rope should be nylon and at least 1/4" diameter. String is not suitable. Gloves are strongly recommended.
9. All cars MUST include a footrest attached to the front axle to prevent "FRED FLINTSTONING".
10. If threaded axles are used, the nuts must be secured with cotter pins or wire.
11. Cars must be equipped with an adequate safety belt securely fastened to the main frame of the car.
12. Cars must be equipped with a handbrake with its rubbing surface faced with a rubber material such as a strip of an old tire. This will stop the car when dragged on the ground.
13. Cars must include the two 2-by-4-inch blocks fastened 1/4 inch from the centerboard to limit the turning radius. (Very important to test this before the race!)
14. All participants must wear a helmet (bike, motorcycle, etc.) and shoes that cover the whole foot. The participants must wear either long pants or kneepads if shorts are worn. Elbow pads and gloves are also recommended.

The Frontier District The Great Race 2025

15. Repairs are permissible in the "pit", however modifications are not allowed after registration.
16. At the pack level an inspection should be held one week prior to the race to check Cubmobiles for mechanical soundness. A pre-race inspection will also be held. Any Cubmobile found to be mechanically unsound will not be allowed to race. **DO NOT USE NAILS!!!** Use carriage bolts/nuts or lag screws. **NAILS WILL NOT HOLD UP TO THE STRESSES INVOLVED WITH THESE CARS!!!!**
17. All drivers should have a practice session prior to race day to familiarize them with the vehicle and to work as a team.
18. Cubmobiles does not have to strictly follow the diagram provided. The car needs to be within the specifications outlined above. It **DOES** have to be mechanically sound. Creativity is highly encouraged. We also encourage this to be done as a Den project. All of the boys should have a hand in the design and construction of their Cubmobile.
19. The ruling of the judges is final on all matters concerning the event.

The committee has found a highly recommended source for Cubmobile wheels. These have been proven to be very sturdy and safe for building a good Cubmobile.

Contact info:

Ali Zarabi @ AliZarabi@eaton.com 412-298-0257

The Frontier District The Great Race 2025

