

How to Build a Cubmobile Detailed Instructions

Have FUN!

1. Cut one 2 X 4 (42 to 52 inches for main frame.) Might want to make several sizes for scouts of different heights.
2. Cut two 2 X 4's 28" for axles.
3. Make an "X" on each end of each axle, and drill a hole at each "X" intersect, 6" deep using a hand electric drill (5/16" wood bit works well).
4. On front axle 2 X 4:
 - a. Drill a 5/16" hole on each end near the back for the rope.
 - b. Drill a 3/8" hole at center of 2 X 4.
 - c. Attach (2) 2 X 4 safety blocks to front axle. The safety blocks must be attached to the front axle leaving only a 1/8 -1/4" gap between the safety block and the main frame. The picture shows a much wider gap, but the narrow gap makes the cars much safer by limiting the range of steering.
5. At front of main frame 2 X 4, drill a 3/8" hole (center 1-5/8" from front).
6. Attach front axle to frame using 3/8" X 4" hex bolt, 4 washers, and lock nut or 2 nuts. (Tighten enough to allow steering).
7. Align back axle 2 X 4 **at right angle** with back of main frame 2 X 4, clamp if possible. Drill (2) 5/16" holes through axle and main frame. Attach main frame to back axle using 2 carriage bolts, 2 washers, 2 lock washers, and 2 nuts. If this is to be a permanent attachment, glue also.
8. Cut out seat and back rest from plywood.
9. Cut one 2 X 4 12-14" in length for back rest support. (Bevel slightly about 5 degrees if possible).
10. Attach backrest support (bevel end down) to mainframe using glue and 2 screws (#8...2 1/2") at an angle. Position of this support depends on size of the youth, have scout sit on 2 X 4 frame to estimate position.
11. Cut out 2 triangular shaped pieces of plywood and attach to either side of backrest support and main frame with glue and screws (#6 1-1/2"). Drilling small pilot holes helps.
12. Attach seat and back rest using glue and screws (#6...1-1/2").
13. Cut 2 X 2 surveyor's stake to 14-16" at an angle, cover end with rubber using nails, drill a 3/8" hole through stake at location it will meet main frame.

14. Drill a 5/16" hole into main frame at point to attach brake. Mount brake using 3/8" X 4" lag screw and washer to side of main frame.
15. Drill and attach seat belt with fasteners of choice.
16. Attach 6-7' of 1/4" rope to front axle as shown.
17. Attach wheels using washers and 3/8" X 6" lag screws. (Socket wrench helps).
18. Have Cub test drive to be sure steering is limited per 4c instructions. Adjust as needed.