

Cart of Blocks



Introduction

The cart of blocks is a favorite toy among young children. It introduces them to shapes, colors and eye-hand coordination.

This project can easily be completed in a day. Pieces are cut from standard materials. In my case, pine and 3/4" plywood scraps left from other projects.

Important note: Don't make just one! While your machine is set up, cut enough parts for at least a half dozen. You'll be glad you did, once you see how well received they are by mothers and grandmothers...and the children!

The following plans create one cart of blocks:

Hardware

- 4 – 1/4" x 1" fender washers
- 4 - #14 x 2 1/2" wood screws
- 1 – 36" x 3/8" nylon braided rope

Basic block shapes and measurements

The blocks should be cut from solid wood. Round-over the edges of each piece using sandpaper or 1/8" roundover bit on a router table. To save time, I cut long strips to width and rounded the edges before cutting the blocks to length.

- 4 – 3/4 x 1 3/4 x 7
- 12* – 3/4 x 1 3/4 x 3 1/2
 - *8 – No cut
 - *2 – Cut diagonally (Figure A)
 - *2 – Cut half-circle shape (I use a bandsaw)
- 4 – 3/4 x 1 3/4 x 1 3/4
- 4 – 7/8 dowel rod by 3 1/2
- 4 – 3/4 x 3/4 x 3 1/2
- 4 – 1/2 x 1 3/4 x 7
- 3 – 1/2 x 1 3/4 x 3 1/2

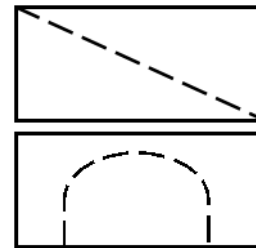


Figure A

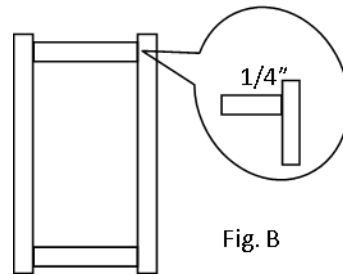


Fig. B

Building the cart

Begin by cutting the following pieces:

- 2 ends – 3/4 x 2 1/2 x 7 1/4 (pine or plywood)
- 2 sides – 3/4 x 2 1/2 x 15 1/4 (pine or plywood)
- 3 each braces- 1" x 1" x 7 1/4" (oak or other hardwood)
- 1 pc. 1/4" plywood pull tab 5" x 6 1/4"
- 1 pc. 1/4" plywood (approx. 7 1/4" x 13 1/4")

After cutting the pieces, round over and sand all surfaces smooth. Connect the ends and sides to form the basic cart shape using glue and brads. Allow the sides to extend 1/4" out from the ends. (Figure B)

Glue and brad nail the three hardwood braces in place, one centered on the cart and the other two centered 3 1/2" from the ends and flush with the bottom of the side. These serve as the wheel axle supports. (See photo at right)

The next step is to cut the 1/4" plywood for the bottom. I measured and cut it to fit. Glue and staple the bottom to the three cross braces.



Next, cut and apply the front pull tab to the bottom, centered on the cart and flush with the back of the first axle brace with glue and brads (or staples). Drill a hole for the pull rope. (Figure C and photo at right)

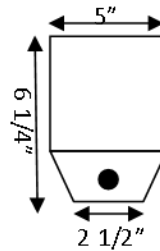


Figure C



Finally, pre-drill a hole for each of the wheel placements. The hole is drilled through the side and centered on the brace. When drilling the pilot hole for the screw holding the wheel, the bit may “chew into” some of the brad nails.

Wheels

The wheels are cut using a 3 1/2" hole saw on the drill press. The arbor of the saw will create a centered hole for the #14 wood screw. Round-over the edges of the wheels with sandpaper or 1/8" roundover bit.

(Option) If you cut the wheels using a circle cutting jig on a bandsaw, the center hole is 1/4".

When applying the wheels, insert a fender washer between the wheel and the cart side (photo at right). Drive the wood screw in tight, and then back it off until the wheel spins freely.



Painting

All parts should be sanded with 150 grit sandpaper before painting. The choice of colors for the cart, wheels and blocks are up to you.

I used 12 oz. cans of Krylon spray paint. It requires no priming and through experience, I've learned a better paint is worth the extra cost. Once the paint dries, it is safe for children.