



Photo by Dan Cary

Organize all your recreational clutter with this easy-to-build cart. Plans courtesy of **HANDY Magazine** July/August 2005. Plans created by Dan Cary and illustrated by Gabriel Graphics.

Shopping List

- 3— $\frac{3}{4}$ " x 24" x 48" Plytanium® Plywood
- 3—1" x 4" x 8' pine
- 2—1" x 6" x 8' pine
- 2— $\frac{3}{4}$ " dia. x 10" EMT conduit
- 4—4" swivel-locking casters
- 1— $\frac{3}{4}$ " dia. x 36" wood dowel
- 1 $\frac{1}{4}$ " corrosion resistant screws
- 2" corrosion resistant screws
- $\frac{1}{4}$ " x 1 $\frac{1}{2}$ " galvanized lag screws
- Exterior primer (1 quart)
- Exterior acrylic paint
- $\frac{1}{2}$ " nylon rope (4')



Most of us encourage our children to play sports, but no one wants to come home to a garage that looks like a sporting goods store exploded. Providing a well-designed system for kids to store their stuff can make all the difference. And including your children or grandchildren in the construction process can foster a sense of ownership in the project and help ensure they'll actually use it.

With these goals in mind I designed a cart that holds a lot of gear; looks good, doesn't take up much space and rolls wherever it's needed. It features two rails that each hold four full-size basketballs or a variety of smaller balls such as soccer balls, a large bottom shelf for everything from inline skates to baseball gloves, a vertical storage area for long items such as bats or hockey sticks and a rack for hanging skateboards and helmets.

This design is easy to modify to suit other storage needs. For example, removing the ball tracks and securing a couple of $\frac{3}{4}$ " x 14 $\frac{1}{2}$ " x 36" plywood shelves on the side rails makes the cart perfect for storing power tool cases, gardening materials or automotive supplies.

Materials and Cutting List

Key	No.	Description	Size
A	1	Bottom, plywood	$\frac{3}{4}$ " x 16 $\frac{1}{2}$ " x 46 $\frac{1}{2}$ "
B	2	Caster cleats, pine	$\frac{3}{4}$ " x 5 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ "
C	2	Bottom rails, pine	$\frac{3}{4}$ " x 5 $\frac{1}{2}$ " x 39 $\frac{3}{4}$ "
D	1	Bottom end rail, pine	$\frac{3}{4}$ " x 5 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ "
E	2	End panels, plywood	$\frac{3}{4}$ " x 16 $\frac{1}{2}$ " x 38"
F	4	Side rails, pine	$\frac{3}{4}$ " x 3 $\frac{1}{2}$ " x 48"
G	2	Box side rails, pine	$\frac{3}{4}$ " x 5 $\frac{1}{2}$ " x 8 $\frac{1}{4}$ "
H	5	End rails, pine	$\frac{3}{4}$ " x 3 $\frac{1}{2}$ " x 12"
I	4	Dowels, oak	$\frac{3}{4}$ " x 8"
J	6	Ball tracks, EMT conduit	$\frac{3}{4}$ " x 39"
K	2	Rope ends, nylon rope	$\frac{1}{2}$ " x 18"

Cutting the Parts

When shopping for materials, I bought 2' x 4' Plytanium® plywood panels, which are a little more expensive but easier to haul and handle than full-size sheets. Cut all of the plywood and solid stock parts to the dimensions in the cutting list; then refer to the drawing (back page) to lay out the profiles on the bottom, one end panel, two side rails and one bottom rail. Next, clamp matching parts together and cut them in pairs with a jigsaw.

The ball tracks fit through holes in the end panels and are held in place by the end rails. Mark the center location of each rail and drill a 1" dia. hole at each mark.

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Drill two 1" dia. drain holes in the bottom. I located the holes 2" from the side rails and centered them between the end panels, but the spacing is not critical.

To make the dowel rack, fasten four dowels to one of the end rails. Drill four 3/4" dia. holes at a 10° angle through one of the end rails. Next, cut four 8" long pieces of 3/4" dia. dowel and secure them to the end rail holes with exterior-grade glue.

Sand all of the parts smooth. Apply one coat of exterior-grade primer and two coats of exterior-grade paint to all surfaces. I chose a basic two-color paint scheme, but you can be as creative as you like with the color choices. You might also want to personalize the cart by painting images of your child's favorite sports or your child's name — ask for his or her input.

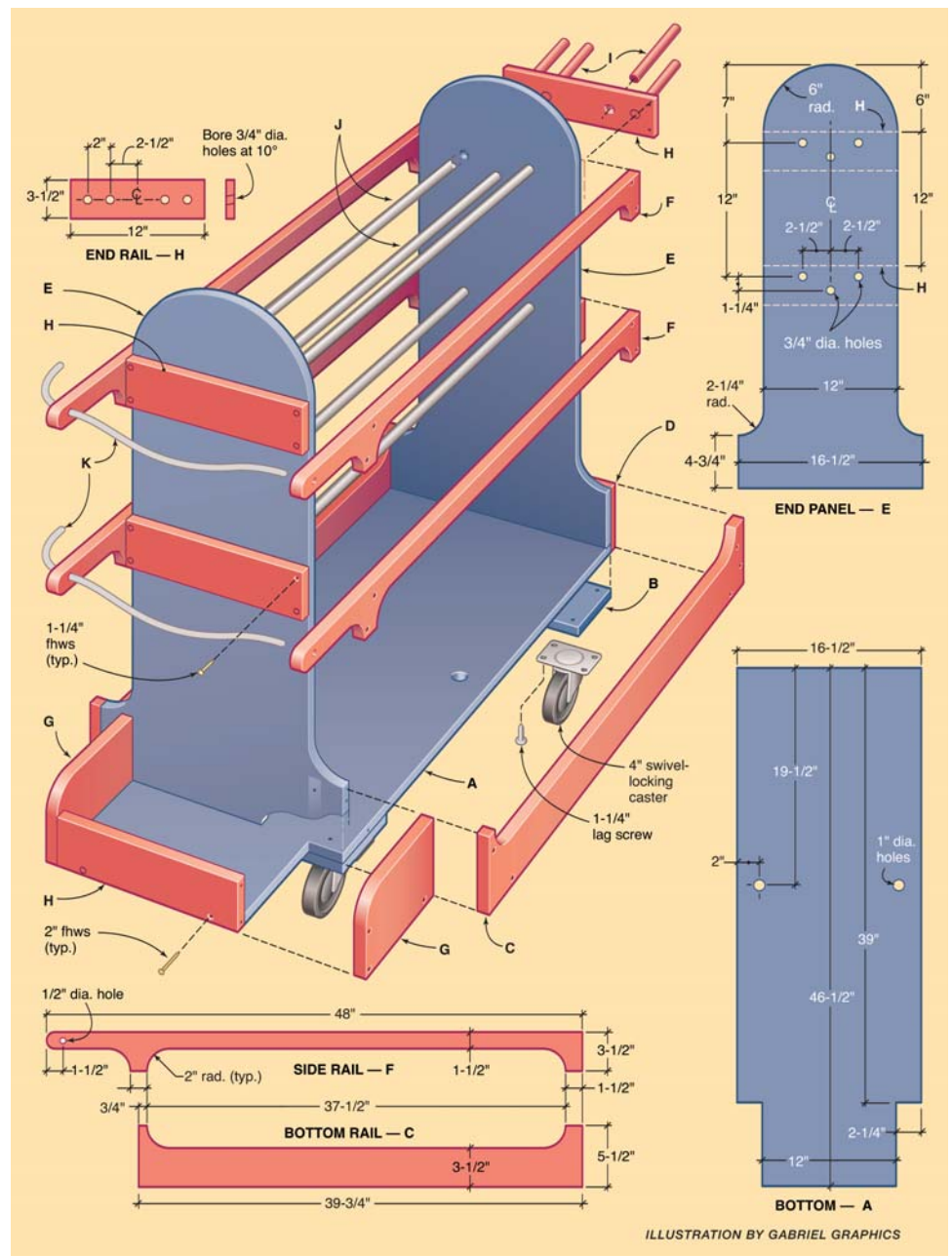
Assembling the Cart

When assembling the parts, you'll work up from the bottom using corrosion resistant screws. To avoid splitting the stock, drill countersunk pilot holes and be careful not to overtighten the screws.

First, attach the end panels to the bottom with 2" screws, being careful to keep the end panels perpendicular to the bottom. Then attach the caster cleats to the bottom with 1/4" screws. Next, attach the bottom rails, the side rails and the box side rails.

I used 3/4" dia. electrical metal tubing (EMT) conduit for the ball tracks. Use a hacksaw to cut six 39" long pieces of the conduit. Slide the conduit through the holes in the vertical panels. Then cover the conduit ends by attaching the end rails to the vertical panels with 1/4" screws and fasten the side rails to the end rails with 2" screws.

I used nylon rope for the end rails on the tall vertical storage area. Slide the rope through the holes in the side rails, tie knots in the ends and trim off any excess. To keep the ends from fraying, singe them with a match or lighter.



Finally, fasten the casters to the caster cleats with four 1/4" x 1/2" lag screws and washers. The cart is now ready for service. It won't clean up a messy garage on its own, but it might increase the odds that someone else will.



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