

## Tool Chest

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This tool chest is intended to serve as working tool storage and also to be movable, i.e., shippable by UPS, etc. That means that it should weigh less than 100 lbs when full of hand tools, that it should be strong, tamper-proof, and water-tight. I intended to design it based on Chris Schwarz's "Twelve Rules," but his design was too big, in my opinion.

I built it out of  $\frac{3}{4}$ " pine plywood. This added to the empty weight somewhat. Solid  $\frac{3}{4}$ " pine or  $\frac{1}{2}$ " plywood would have been preferable for the sides. The top and bottom should be plywood. The top is  $\frac{1}{2}$ " plywood rabbetted into a mitered frame of oak. The top frame should be 2" deep or more to hold framing squares, etc. The bottom is  $\frac{1}{2}$ " plywood trapped in a groove. The chest has three sliding trays. It is painted a drab tan color, so as not to draw attention if I should need to ship it. It weighs 40 lb., empty, probably too much.

It requires about 9, 4 x 8' planks or a bit less than three quarter-sheets of plywood.

Construction is straightforward. The sides are joined with  $\frac{3}{4}$ " finger joints, The top is rabbetted into the frame and the bottom is trapped in grooves around the bottom of the sides. The trays are graduated in size and are different distances from the one below. The bottom tray is about 4  $\frac{1}{2}$ " from the bottom to accommodate plane and saw totes. The tray lengths have to be "stepped" so that they can be removed. Each one should be about  $\frac{3}{8}$  -  $\frac{1}{2}$ " shorter than the one above so that it will clear the tray guides of the one above it. I joined the tray boxes with drawer-lock joints and nailed/glued on the  $\frac{1}{4}$ " Masonite bottoms. The bottom and the trays should be subdivided with Masonite to suit. It is probably not a good idea to fit the tool spaces too carefully to the tools that they are intended to hold.

part#	pcs	Name	Dimensions (Can be $\frac{1}{2}$ " plywood or $\frac{3}{4}$ " Pine)
1	2	Box Front & Back	26 x 18 x $\frac{1}{2}$
2	2	Box Sides	18 x 18 x $\frac{1}{2}$
3	1	Bottom	25 $\frac{1}{4}$ x 17 $\frac{1}{4}$ x $\frac{1}{2}$
4	1	Top	25 $\frac{1}{4}$ x 17 $\frac{1}{4}$ x $\frac{1}{2}$
5	2	Top Frame Front & Back	26 x 2 x $\frac{3}{4}$ "
6	2	Top Frame Sides	18 x 2 x $\frac{3}{4}$ "
7	1	Top Tray	24 $\frac{3}{8}$ x 8 x 1 $\frac{7}{16}$ D overall
8	1	Middle Tray	24 x 8 x 3 $\frac{1}{4}$ overall
9	1	Bottom Tray	23 $\frac{5}{8}$ x 8 x 4 $\frac{3}{8}$ overall
10	6	Tray Rails	17 $\frac{1}{4}$ L x $\frac{3}{4}$ thick, various widths (e.g., $\frac{3}{4}$ ", 1 $\frac{1}{4}$ ". 1 $\frac{3}{4}$ ")

The top is heavy and definitely should have a trunk lid hinge



