

How to build a flat.

Materials:

Part 1:

Wood, as detailed in step 1 (possibly in the wood pile, or recently purchased)

Roofing nails (right part of tool cabinet, by the screws I think. They're short suckers with big fat heads)

Hammers (tool cabinet, left door)

Wood glue (paint cabinet, 3rd shelf or something like it)

Tape measure (tool cabinet, left door)

Triangle square (funny, eh? tool cabinet, left wall)

Part 2:

Muslin, length detailed in step 1 (should be lying around)

Glue (paint cabinet, 3rd shelf or something like it)

Staple guns and staples (tool cabinet, middle shelf, left side, in one of the organizers)

Knife (same as staple guns)

Tape measure (tool cabinet, left door)

Hammer (tool cabinet, left door)

A) First, the frame.

1. Get your materials. To start, you'll need 1"x4" of the length of the sides of the unit. Check with the TD or whomever is in charge to see what he/she wants you to build. For example, if I say, make me a 4'x8' flat, go and get 2 1"x4"'s of length 4' or greater and 2 of length 8' or greater.

2. Now for the cross bracing. In the middle, going horizontal across on a flat is usually cross bracing. How many depends on the area of the flat. Examples:

a. 2'x8' = no cross bracing, or optionally 1 at 1'5"

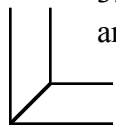
b. 4'x8' = 1 or 2 cross braces of 3'5"

c. 5'x10' = 2 cross braces of 4'5"

Scale to order, but don't forget to subtract the width of a 1"x4" (3 1/2") from each side.

Thus, each cross brace is 7" less than the horizontal dimension. If the flat is friggin huge or will carry weight, go nuts and add vertical cross braces and the like. Do this only if you're told.

3. Cut the materials down to size. We do miter cuts on the joints, which means that we are putting two pieces together at 45°.



a. Mark the wood to the appropriate length (say, 4' and 8' or whatnot). make sure you mark it at the appropriate 45°. Use the triangle square thingy to do it.

b. Make sure that the chop (miter) saw is plugged in.

c. Get goggles.

d. Adjust the chop saw to 45° by using the knob directly on the front. You might have to unscrew it a bit, and then push down on the metal catch to rotate it. If you

let go of the catch, it should slide freely (with some effort) and catch at both 22.5° and 45°.

e. Put the wood in and examine where your cut will be. Remember that you want the long side to be your outer dimension, so cut with the blade on the far side of your line.

f. Cut all the wood. Do not cut too quickly, or else the blade might catch and cause the motor to stall.

4. Prepare pieces of backing to hold the wood together. Do this by cutting triangles of 1/2" ply wood or luan with sides and bases around 7". You'll need 4 triangle units. Cut rectangles of length approximately 7" and width 3 1/2". You'll need 2 of these for every cross brace.

a. If you are comfortable with the table saw, go ahead and cut them on that. They only need to be approximate, so do whatever.

b. If you're not comfortable, find someone who is to show you how to use the table saw.

c. Alternative cutting can be done, but definitely find someone who seems like they're in charge first.

5. Put the frame together by laying it out on a clear space of ground. Get a framing square (looks like a giant L. on the left door unit) from the tool cabinet and put it in the joints to get them as square as possible.

a. Use wood glue to lather up the bottom sides of the triangles and rectangles and place them firmly on the corners and gaps between the cross braces. You can use your hands, or a piece of stray wood to do the spreading.

b. Use the roofing nails and a hammer to attach the pieces to the 1"x4" beneath.

6. If its the last flat to be build, clean up your tools. Otherwise, move the flat aside, GENTLY, while the glue dries and move on the to the next piece.

B) Now, the cloth

1. Get your materials.

2. Cutting the cloth: I want an excess of cloth on all sides. Muslin is usually purchased off a 9' tall roll, which means that 8' and shorter can be made with 6" on top and bottom. If its a taller flat and we don't have any taller cloth, you'll have to measure it out on its side. Use the knife to cut out a rectangle with a 5" (or 6" if its 8' exactly) border on all sides. For example, for a 4'x6' flat, cut out a rectangle of 4'10" by 6'10". If you start a cut with the knife, you can often tear it the rest of the way. Just be careful that it goes fairly straight.

3. Spread glue all around the upper face of the frame. You can do this with your hands, or with a flat piece of wood. Do not use too much glue, it should spread fairly evenly across the entire piece of wood.

4. Get a crew of 10 or so people together. Save 1 or 2 people for stapling, depending on how many guns we have.

5. With those 10 people pulling on the muslin as tightly as possible, lower it on the frame and pull it down around the frame. Again PULL AS TIGHTLY AS POSSIBLE. Don't forget to leave the 5" border all around.

6. While pulling, have the people with the staple guns staple the cloth into the side of the frame as quickly as possible. Once a section is fully stapled, the people pulling in that area can stop and someone with a hammer can sink the staples.
7. Clean up the cloth by cutting off all but approximately 2 inches of excess from all around. The idea is to have enough to staple the cloth around and onto the back.
8. Do that. Pull the cloth around back and staple it a few times just to keep it from getting in the way.