

BUILDING A FLAT #1

Using 1 x 3 (3/4" x 2-1/2" nom.) lumber, cut your framing pieces as follows:

Top and bottom pieces: 2 @ 36"

Verticals: 2 @ 46-1/2"

Central brace: 1 @ 34-1/2"

Skin: 3' x 4'

Put the two vertical pieces together and flush the ends. Put a piece of 3/4" material at one end and measure 24" from that end. Subtract or add 3/8" from 24" mark and make a tick mark on your lumber where the two pieces touch. Put an "x" on the 24" mark. (The tick shows where one side of the framing member goes, the "x" show on which side.) Make sure there is a tick mark on both pieces of lumber. You may wish to use a speed square or similar measuring tool to transfer the mark.

Lay out the top and bottom pieces and the center brace and drill aligned holes for what ever cable material you are going to use for rigging. I usually fly flats by picking them up though and from the bottom frame member. I'll use eyebolts bolted through the frame or there exists flying hardware made specifically for this as well. I'll usually get a turnbuckle somewhere in the mix to help with leveling.

Assemble the flat using whatever fastening system your instructor gives you. Do not worry about build the frame square. The skin will square it up. In theatre, I generally used a pneumatic finish nailer, which allowed the flats to be recycled with a minimum of damage when dismantling. On larger flats I will often use 2 finish nails and a screw at each joint.

Attach the skin flush along one of the short edges, again with whatever system your instructor gives you. (As this flies, glue the skin on.) Working from one corner of the attached edge, work along the 4' side pulling the frame flush with skin and attaching it as you go. Finish attaching the skin to the outer frame. Measure and strike a line at 24" from the top of the flat and attach the skin to the Center support.

Install your flying hardware and. viola!