

Stretcher Assembly - Method #1

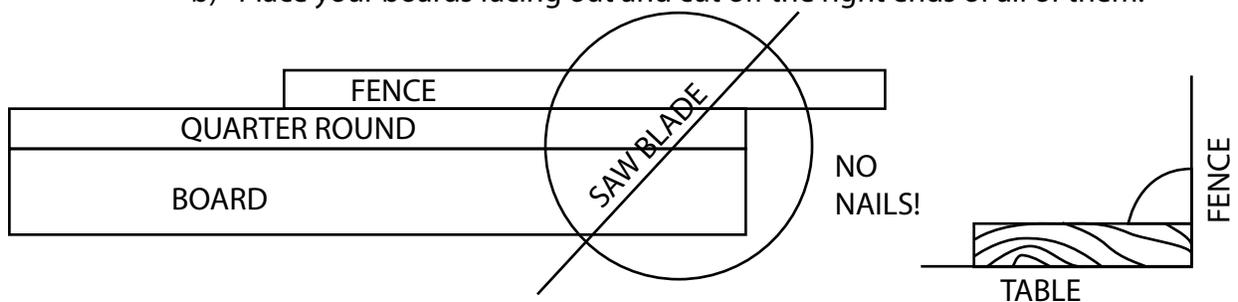


For stretchers under 3 feet, no table saw

1. Select straight 1x3 and quarter round, equal lengths (unless you need cross braces - then extra 1x3 must be purchased): pine, poplar, cedar or redwood.
2. Use the chop saw: cut down your wood to more workable lengths; add at least 4 inches for modification. For example, if you are making a stretcher that's 18" x 24", cut your pieces to at least 22" and 28".
3. Using glue and the nail gun, attach your quarter round to your 1x3:
Leave at least 4 inches on either end without nails. This is so you don't cut through any nails when you cut your corners. This damages saw blades.



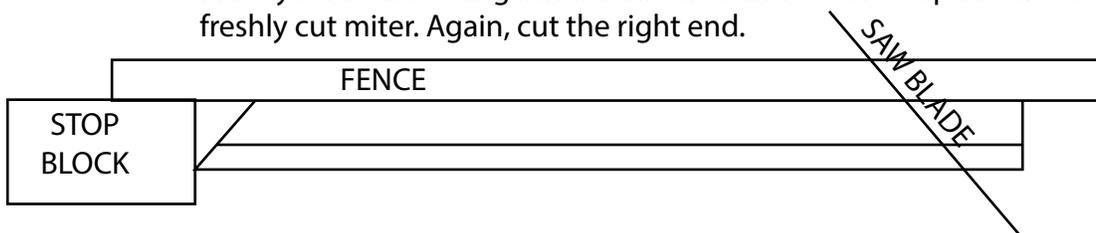
4. Use the chop saw to cut your corners to 45 degrees.
 - a) set the saw at 45 degrees.
 - b) Place your boards facing out and cut off the right ends of all of them.



5. Reset saw to 45 in the other direction.

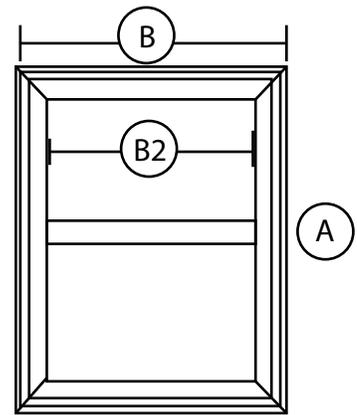
Determine the length and width of your frame. Cut the boards in pairs, longest set first, incase of mistakes.

Place your board facing inward this time and set the stop block to receive the freshly cut miter. Again, cut the right end.

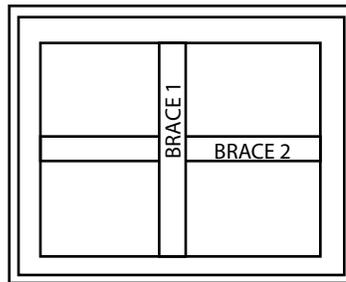


6. Cross braces are recommended on any side longer than 30 inches. If you don't need cross braces, skip to step 7.

- a) reset the chop saw blade to 90 degrees.
- b) cut your braces to fit inside the frame.
If you're making a brace for dimension A, it should equal the interior of B (B2), or B minus the thickness of 2 sides.



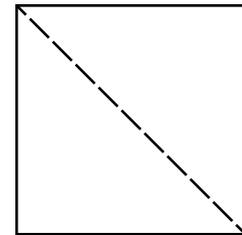
- c) If you need a cross brace in the other direction, cut it to fit around the first brace:



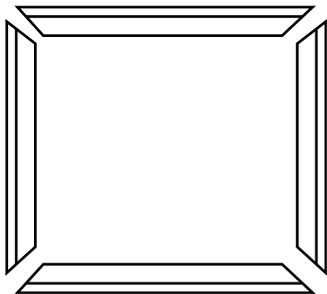
- 7. Cut masonite for corners. You will need 2 pieces measuring approximately 6" x 6", and they must be square. If you need assistance with this, ask the shop staff (it may require the use of the table saw).

Take the squares to the bandsaw and cut them corner to corner:

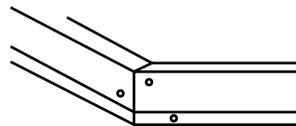
If you have cross braces, you will need additional squares - one per support, cut into triangles, plus an additional square for each intersection.



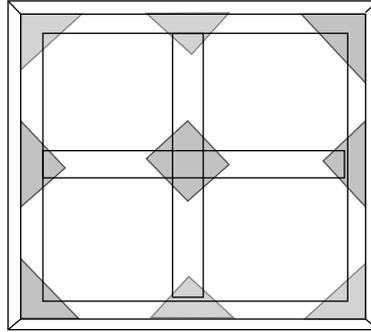
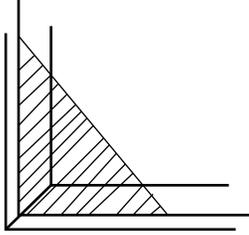
- 8. Assembly: Lay out your pieces:



Begin assembling corner by corner with wood glue and the nail gun. A corner clamp may be useful at this stage for holding the corner in place while you nail. 3-4 nails per corner is sufficient. (For larger stretchers, you may opt to use wood screws.)



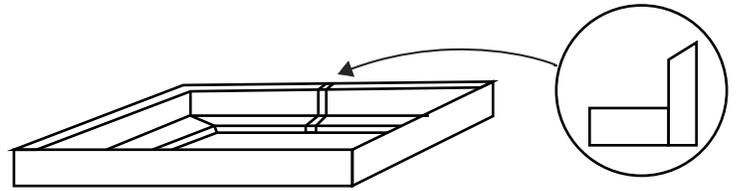
Now attach your corner braces using the narrow crown stapler. If you have cross braces, attach them using your extra masonite as follows:



You're now ready to stretch your canvas.

Stretcher Assembly - Method #2

For stretchers over 3 feet, very strong



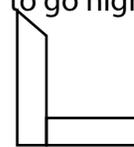
1. Select straight 1x3 or 1x4: pine, poplar, cedar or redwood
2. Use the chop saw: cut down your wood to more workable lengths if it is excessively long; add at least 6 inches for modification. For example, if you are making a stretcher that's 48" x 60", cut your pieces to at least 54" and 66".

*Remember that you will need 2 pieces per side, so for one stretcher, you need 2 sets of 4 pieces of equal length. (ie - 4 pieces at 54" and 4 at 66" in the above mentioned example)

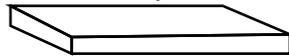
3. Table saw: Cut your bevels

Set the blade pitch to at least 10 degrees (you may prefer to go higher - 15, 30 ...personal preference) and cut your four bevels.

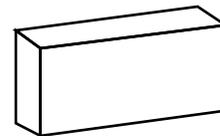
The cross section of one stretcher bar looks like this: so for each side, you will bevel on piece (the vertical piece) and leave the other in tact.



Now you should have 8 pieces for assembly:



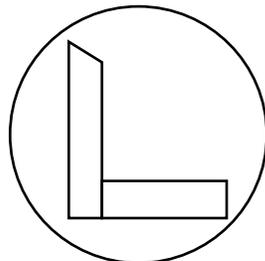
x 4



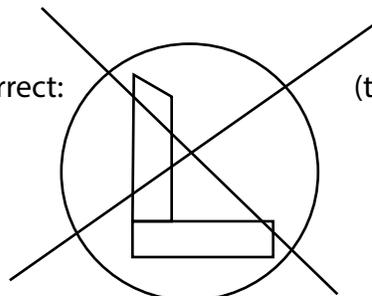
x 4

4. Using glue and the nail gun, attach your beveled board to your square board like so:

Correct:



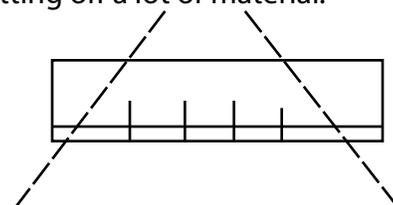
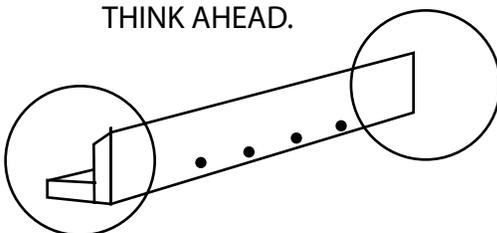
Incorrect:



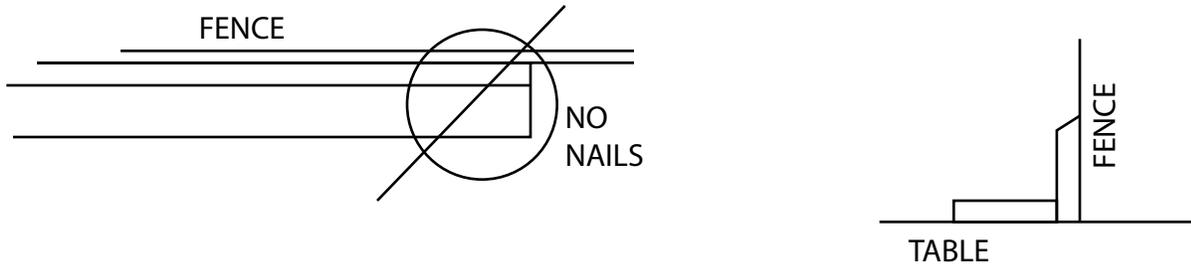
(too weak)

Leave space at each end without nails. This is so you don't cut through any nails when you cut your corners. It damages saw blades. You should leave at least 4-6 inches for this, more if you know you'll be cutting off a lot of material.

THINK AHEAD.



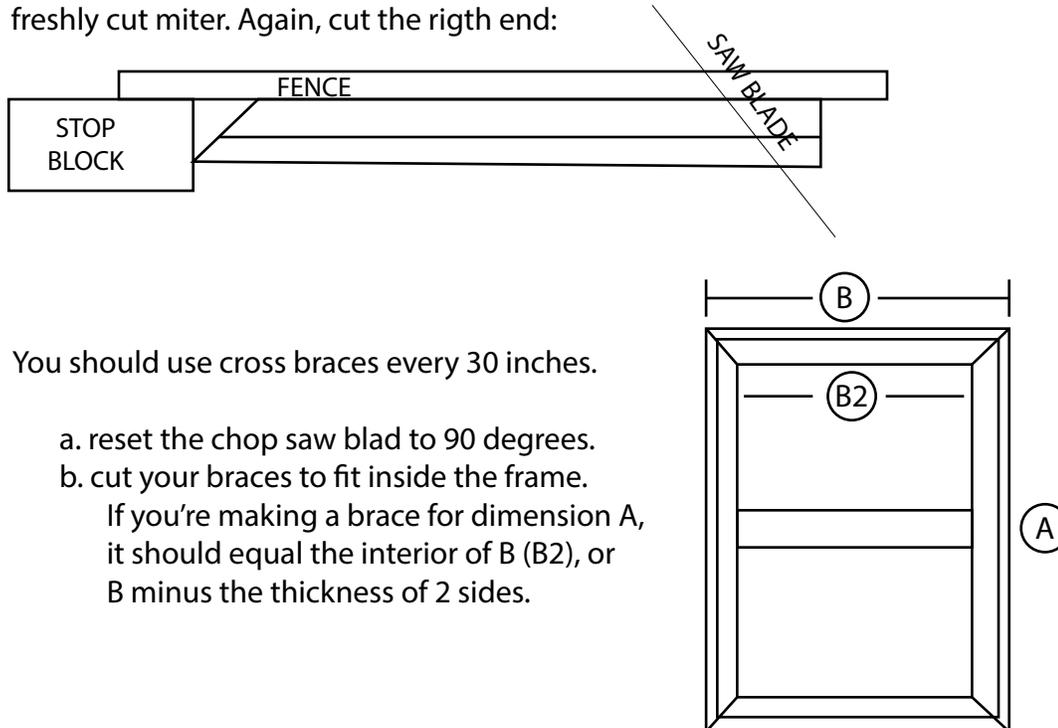
5. Use the chop saw to cut your corners to 45 degrees.
 - a. set the saw at 45 degrees.
 - b. Place your boards facing out and cut off the right ends of all of them.



6. Reset saw to 45 in the other direction.

Determine the length and width of your frame. Cut the boards in pairs, longest set first, in case of mistakes.

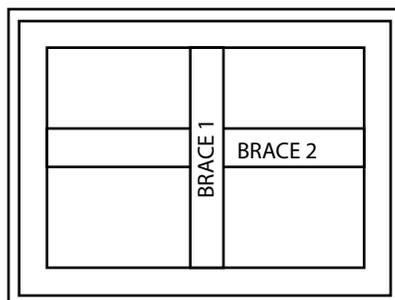
Place your board facing inward this time and set the stop block to receive the freshly cut miter. Again, cut the right end:



7. You should use cross braces every 30 inches.

- a. reset the chop saw blade to 90 degrees.
- b. cut your braces to fit inside the frame.
If you're making a brace for dimension A, it should equal the interior of B (B2), or B minus the thickness of 2 sides.

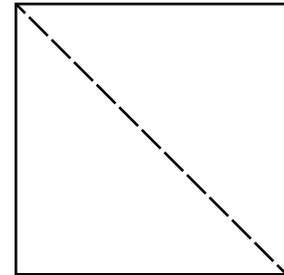
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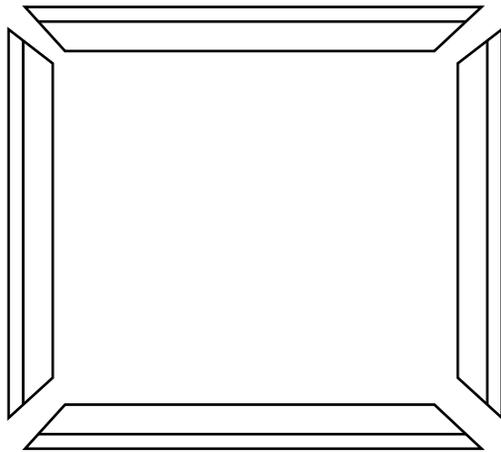
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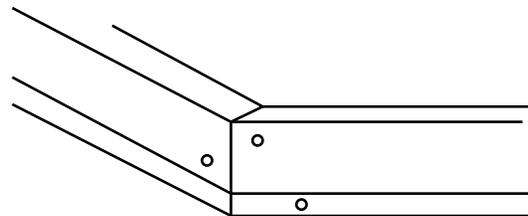
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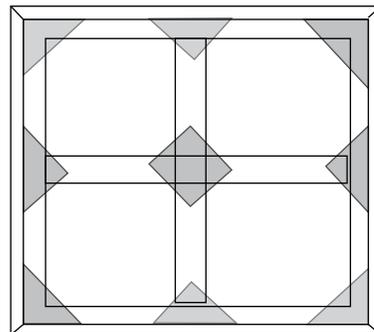
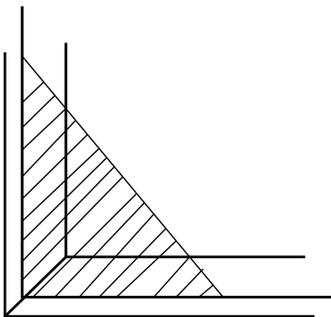
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Now attach your corner braces using the narrow crown stapler. If you have cross braces, attach them using your extra masonite as follows:



You're now ready to stretch your canvas.