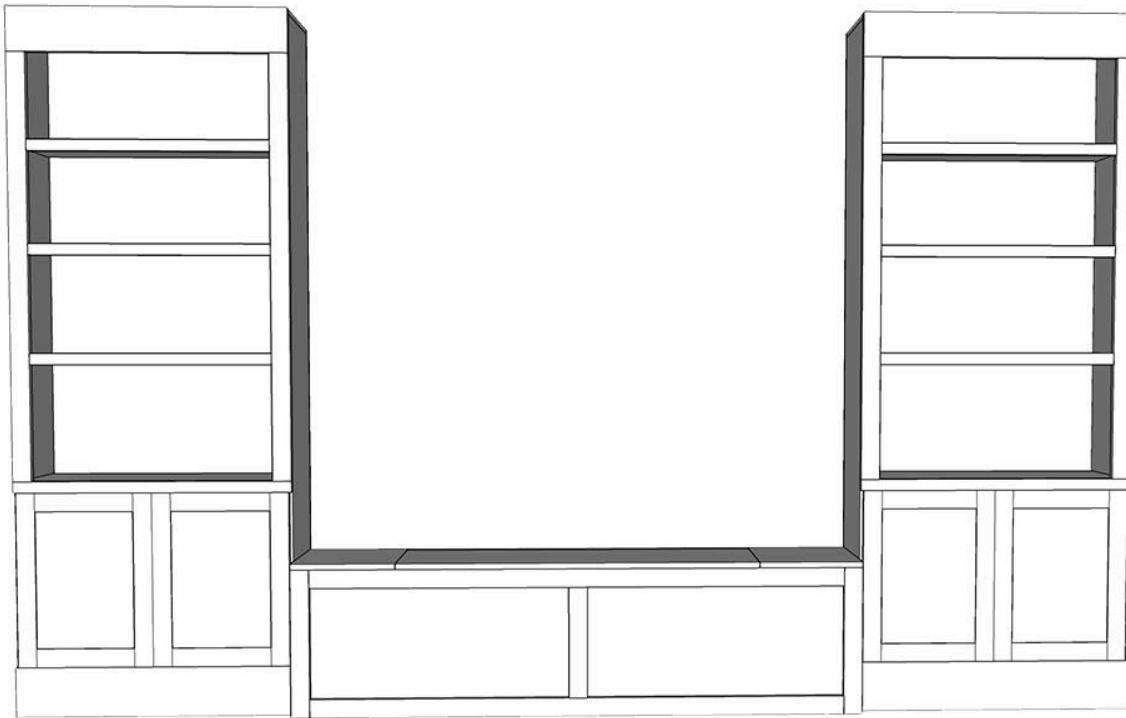


Built-In Bookcases and Window Seat

By Shades of Blue Interiors



Exact measurements will vary depending on the size of your wall/room, but below is the general cut list for 2 bookcases and a window seat in a room with 8' tall ceilings. My total measurements for each bookcase was 37" wide, 94 $\frac{3}{4}$ " tall, and 12 $\frac{3}{4}$ " deep. My window seat total measurement was 77" long, 20 $\frac{3}{4}$ " tall, and 13 $\frac{3}{4}$ " deep. Again, your measurements will vary.

BOOKCASES:

4- $\frac{3}{4}$ " MDF cut to 12" wide x 94" tall --(**bookcase sides**-- yours might be taller if you have taller than 8' ceilings)

2- $\frac{3}{4}$ " MDF cut to 12" wide x (37" was what I used, yours might vary if you want wider or narrower bookcases)-- (**bookcase tops**)

4- $\frac{3}{4}$ " MDF cut to 12" wide x (35 $\frac{1}{2}$ " was what I used, but take the width of your final bookcase and subtract 1 $\frac{1}{2}$ "-- (**bookcase bottom and second shelf**)

4- $\frac{3}{4}$ " MDF cut to 6 $\frac{3}{4}$ " wide x (37" was what I used)-- (**top and bottom aprons**)

4- 2 $\frac{1}{2}$ " wide Fluted door casing or 1x3 cut to 56 $\frac{1}{2}$ " (may be taller if your bookcase is taller than mine)-- (**side trim**)

2- 1x2 cut to (37" was my width)-- (**cabinet opening trim**)

6- 1x2 cut to (31 7/8" was my width, basically this is best done when shelves are in place already and you can measure the distance between the two side trim pieces)-- (**shelf trim**)

6- 3/4" MDF cut to 11" wide x (35 1/8" was my shelf width, but yours may be different, just take your overall bookcase width and subtract 1 7/8", to allow room for shelf pins and easy removal of shelves)-- (**shelves**)

CABINET DOORS:

8- 1x3 cut to (23 1/4" was mine, but yours will be the measurement from the very bottom shelf to the top of the cabinet opening trim, minus 1/4" for door clearance)-- (**cabinet door stiles**)

8- 1x3 cut to (13 1/4" was mine, but yours will be the width of your bookcase minus 1/2" for door clearance, divided by 2 since you have 2 doors)-- (**cabinet door rails**)

4- 1/2" plywood cut to length of door rails x (length of stiles minus 5)-- (**cabinet door in-sets**)

WINDOW SEAT:

(note: this is best built after bookcases are in place so you know can build it to fit your space)

4- 2x4 cut to: distance between 2 bookcases minus 8 1/2"-- (**front and back window seat frame long lengths**)

4- 2x4 cut to 20"-- (**front and back window seat frame height pieces**)

2- 2x4 cut to 13"-- (**window seat frame middle supports**)

4- 2x4 cut to (9 1/4" was mine, but yours will be different based on how deep you want your seat to be-- basically take the seat depth want and subtract 4 1/2")-- (**window seat frame width supports**)

2- 3/4" MDF cut to 20" (total window seat height minus 3/4" for lid) x (12 1/4" was mine, yours will be window seat depth minus 1 1/2")-- (**window seat sides**)

1- 3/4" MDF cut to 20" x (77" was mine, but yours will be the total length of your window seat or the total distance between the two bookcases)-- (**window seat front**)

2- 1x3 cut to 20" (height of window seat minus 3/4")-- (**window seat height trim**)

2- 1x3 cut to (72" was mine, but yours will be total length of your window seat minus 5")-- (**window seat length trim**)

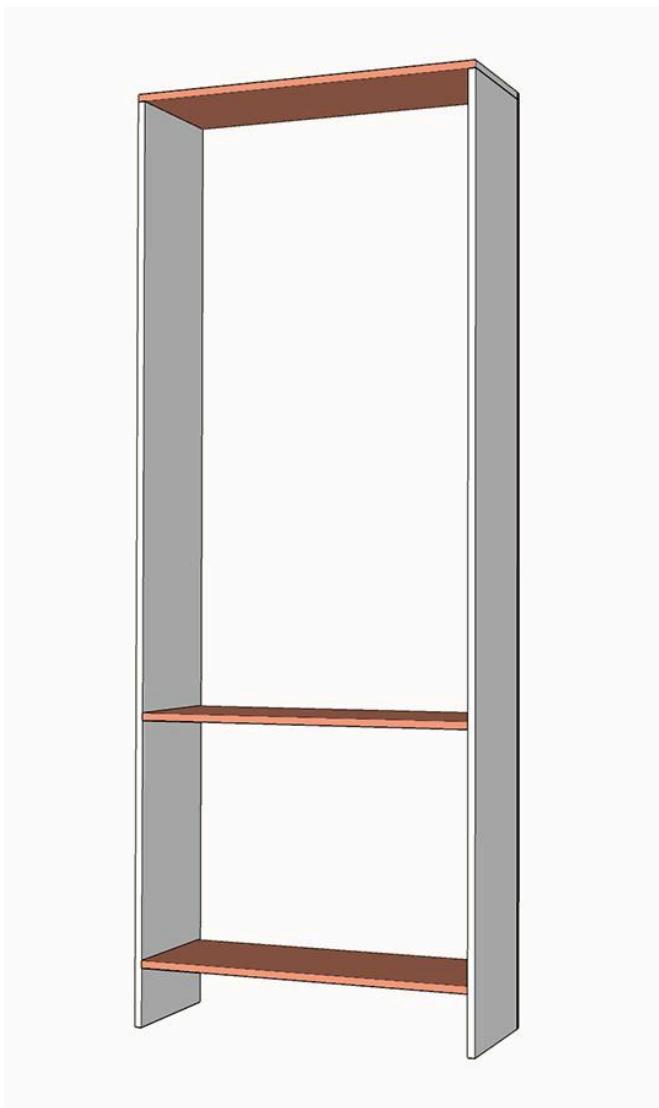
1- 1x3 cut to 15" (height of window seat minus 5 3/4")-- (**window seat center trim**)

2- 3/4" MDF cut to (13 3/4" was mine but yours will be total window seat depth) x (14 7/16" was mine but yours will be the total length of your window seat, minus 48 1/8" divided by 2)-- (**window seat top pieces**)

1- 3/4" MDF cut to 1 1/2" x 48 1/8" -- (**window seat lid hinge support**)

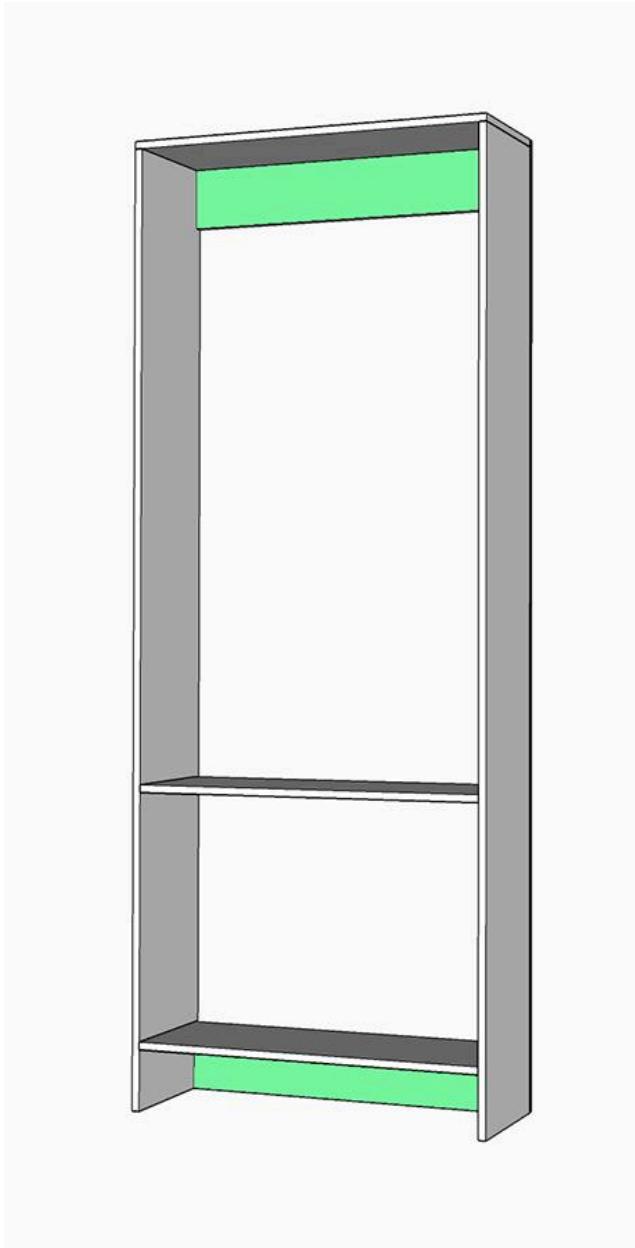
1- 3/4" MDF cut to 48" x (12 1/8" was mine but yours will be total window seat depth minus 1 3/8", which is 1 1/2" of the lid hinge support plus 1/8" hinge allowance)-- (**window seat lid**)

BOOKCASE STEP-BY-STEP



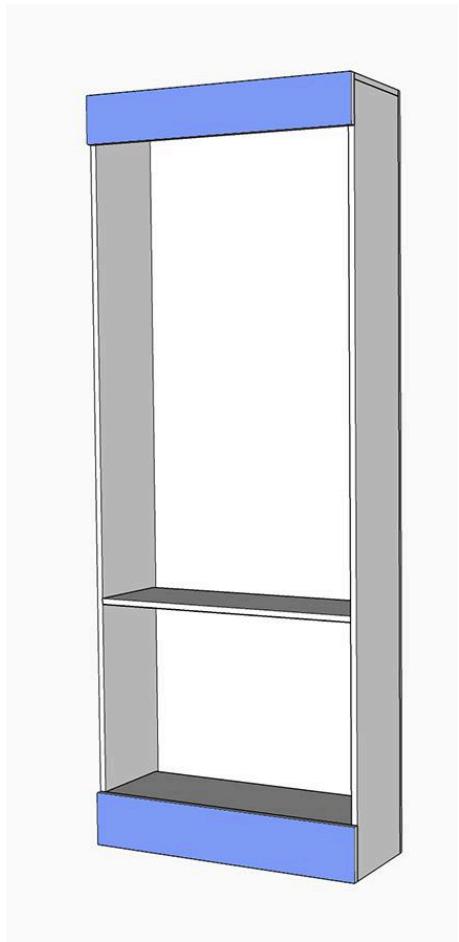
Step 1- Build Frame

Pre-drill 3 holes per side for the top piece, then attach to the top of the long sides. Measure the bottom shelf support, and mark 6" from the bottom of the sides on both front and back edges. These marks are where the bottom edges of the bottom shelf will touch. Put the bottom shelf support in place and pre-drill 3 holes per side, then glue and screw (using 2" screws) into place, driving the screws in from the outside of the sides. Measure 24" from the top of the bottom shelf, and mark on both front and back edges of the sides. Put the second shelf support in place and pre-drill 3 holes per side. Glue and screw into place.



Step 2- Attach Back Supports

Place one of the 6" wide back supports flush against the underside of the bottom shelf, and flush with the back of the bookcase sides. This is the bottom back support. Pre-drill holes and drive 2" screws into the support from the outside of the sides. Repeat this process for the top back support, placing it just under the top of the bookcase. Pre-drill and drive screws from the top into the back support as well as the sides.

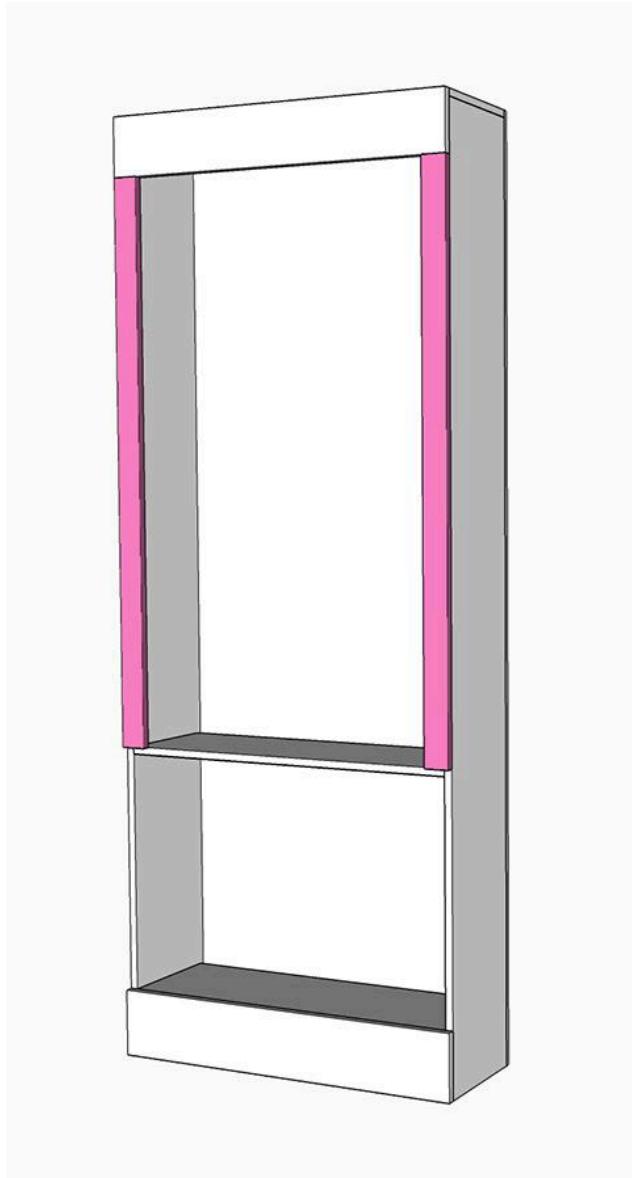


Step 3- Attach Aprons

Before attaching the top and bottom aprons, place the bookcase frame into place in the room. Position both bookcases flush against the walls. Find the studs, and attach the bookcase to the wall using $2\frac{1}{2}$ " screws, driven from the back supports into the wall and the studs. Position the bottom and top aprons to hide the back supports and glue and nail into place using 2" nails.

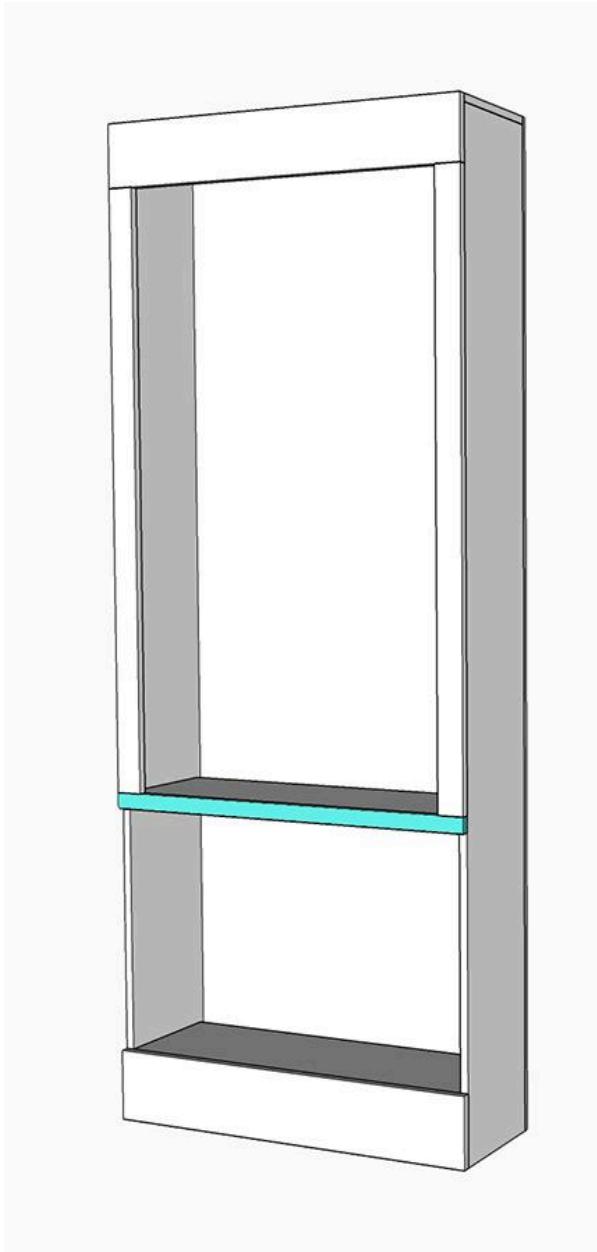
Step 4- Drill Shelf-Pin Holes (Not Pictured)

Using a shelf-pin template or a shelf-pin jig, drill $\frac{1}{4}$ " shelf pin holes on both sides of the inside of the bookcase between the 2nd shelf and where the top apron hits. Make sure shelf-pin holes are even and level, so your shelves will be level.



Step 5- Attach Side Trim

Using either fluted door casing or 1x3s, glue and nail the side trim from under the top apron down to the top of the bottom shelf, making sure they are flush with the outer edge. On the side that is against the wall, position the trim to hide the gap between the bookcase and the wall.



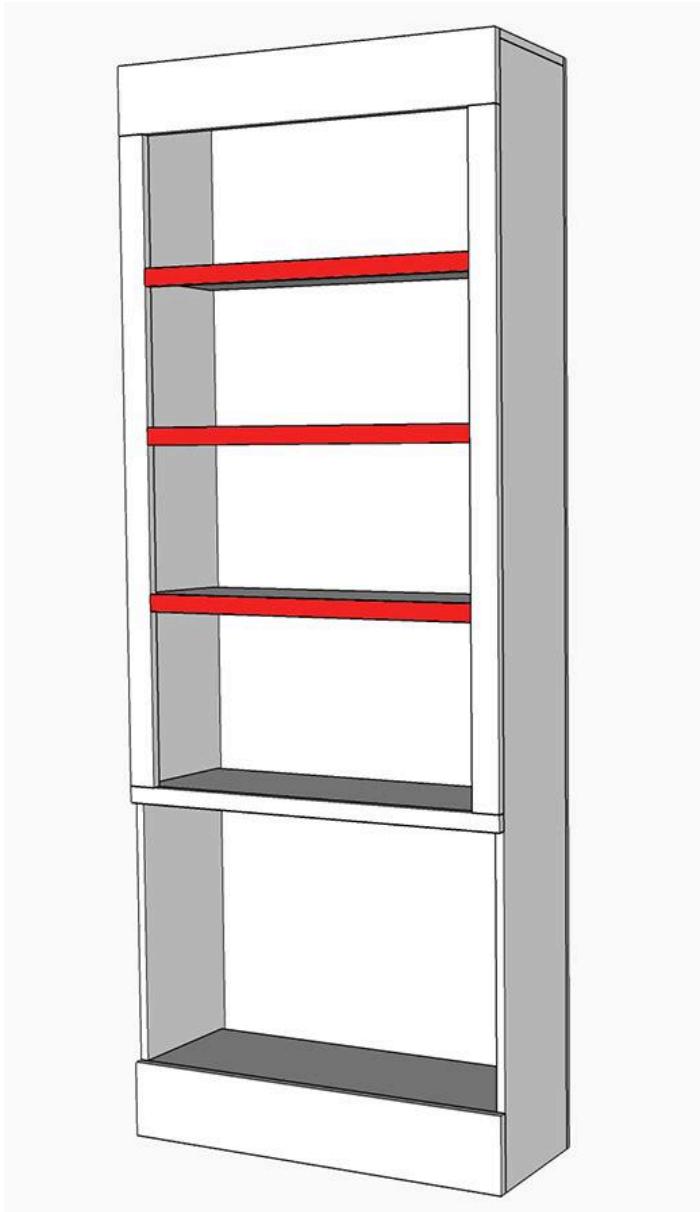
Step 6- Attach Cabinet-Opening Trim

Glue and attach the 1x2 trim flush below side trim pieces attached in step 4, driving nails into the 2nd shelf and sides. Best practice so that you can cover gaps on the wide that has the wall, is to measure from the wall to the outer side of the bookcase and cut the 1x2 to that length.



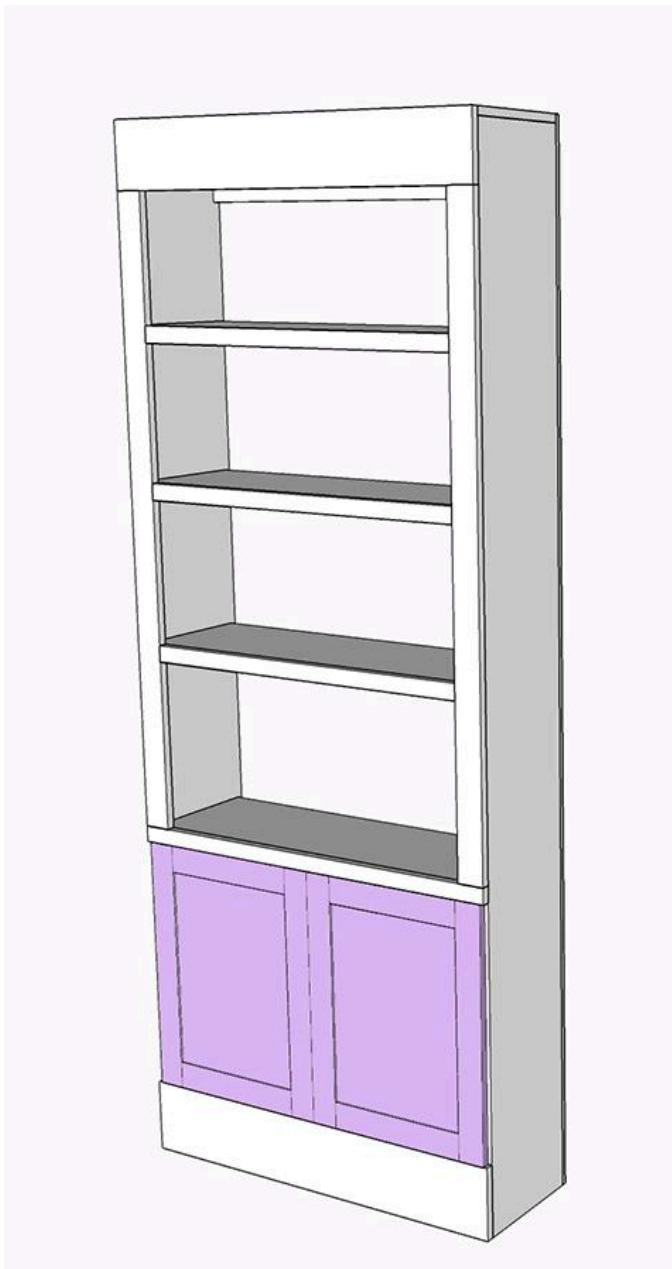
Step 7- Hang Shelves

Place shelf pins into desired locations for even spacing of shelves and place shelves on top. Make sure no shelf is a 'perfect fit' as MDF expands a little when painted, so you want to have enough space on either side that it doesn't fall off the shelf pins, but it also is easy to remove.



Step 8- Attach Shelf Trim

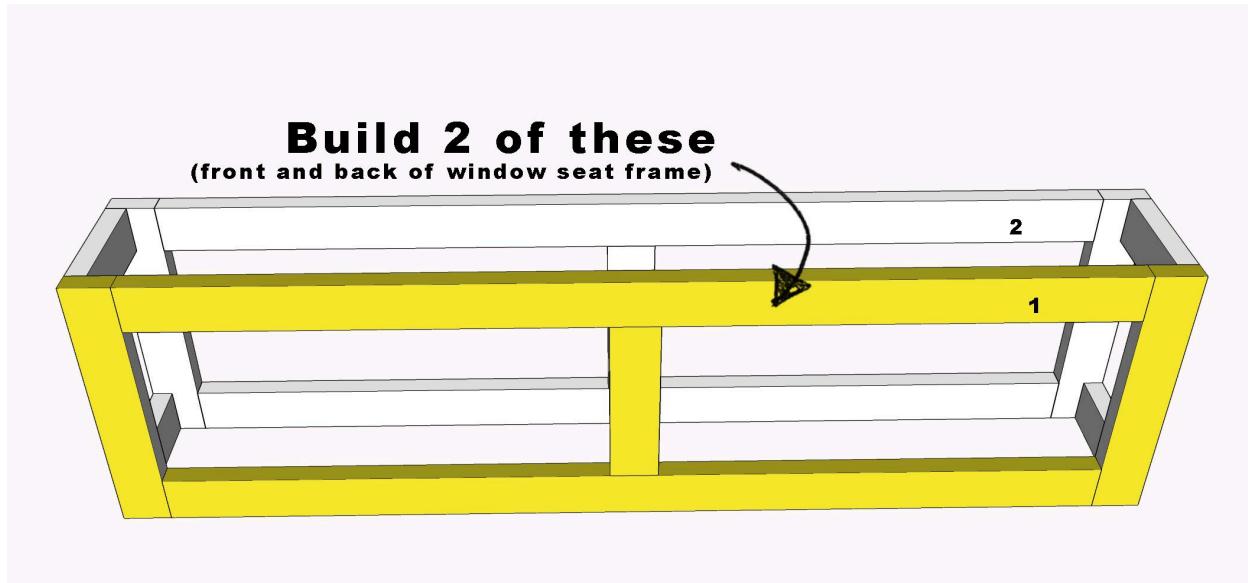
Measure the distance between the inside edges of both the side trim pieces, then cut the 1x2s accordingly (subtract about $\frac{1}{8}$ " so you can easily move the shelves around). Attach them to the edge of each shelf using glue and nails.



Step 9- Attach Cabinet Doors

Build and attach cabinet doors using full overlay cup hinges. To see how to build doors, visit <https://www.shadesofblueinteriors.com/how-to-build-cabinet-doors-for-any-bookcase/>

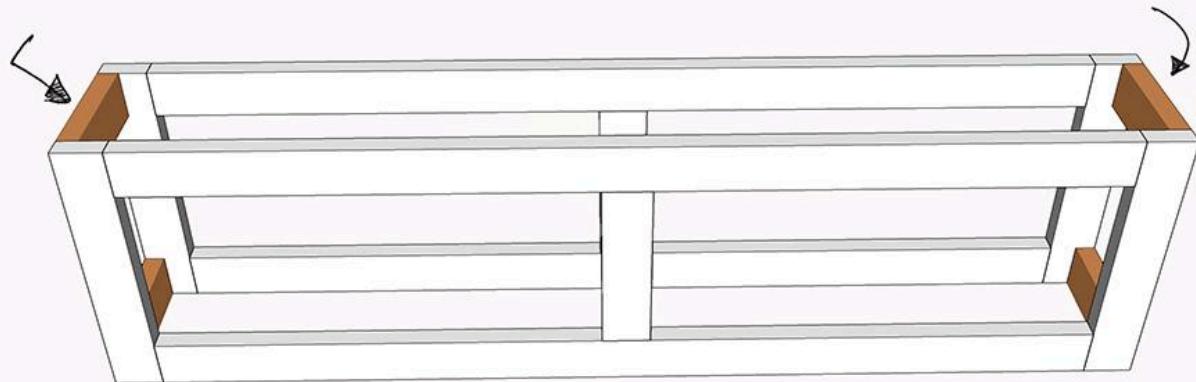
WINDOW SEAT STEP-BY-STEP



Step 1- Build Front & Back of Window Seat Frame

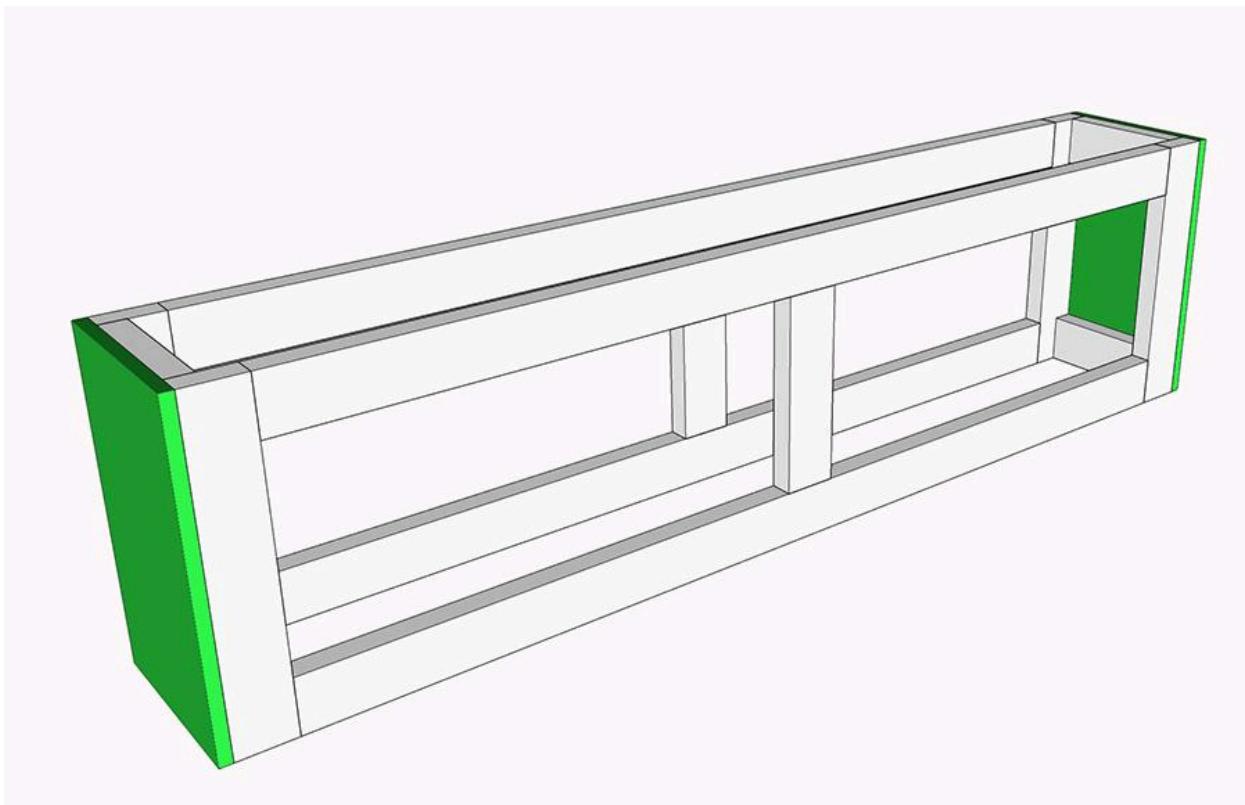
After bookcases are installed, build your window seat to fit. Build a front and back of the window seat frame using 2x4s and attaching the pieces together with a pocket-hole jig. For instructions on calculating lengths of each piece see cut list above.

Attach front and back window seat frames with 2x4s



Step 2- Attach Front & Back of Window Seat Frame Together

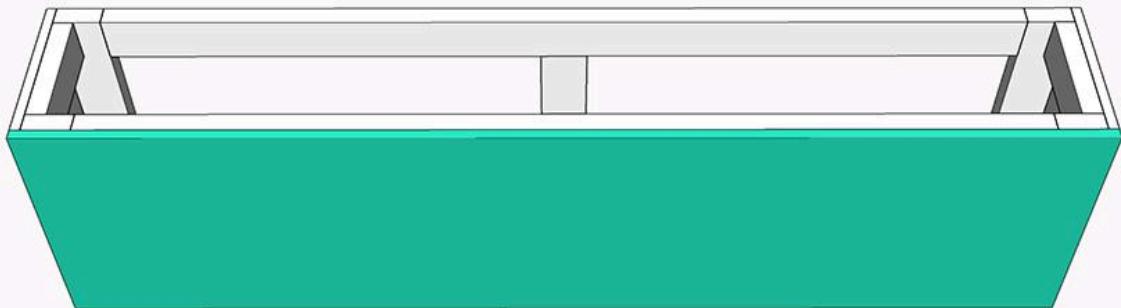
Using a pocket-hole jig (with jig-holes on the outside) or using screws driving in from the outside, attach the window seat width supports to the front and back of the window seat frame.



Step 3- Attach Frame to Wall & Nail Window Seat Sides onto Frame

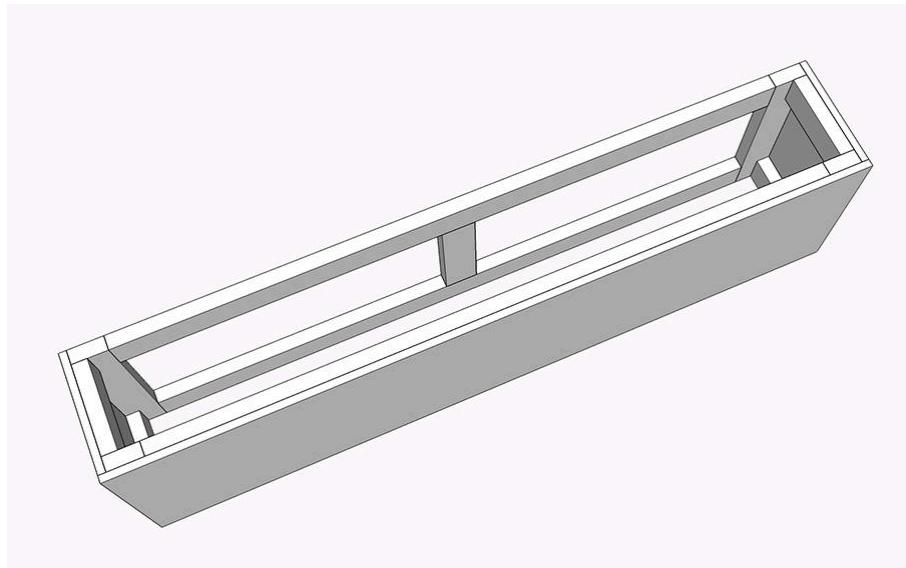
Find the studs on the wall and attach the window seat frame onto the wall, driving 3" long screws from the 2x4 long lengths into the wall and studs.

Slide the MDF window seat sides between the bookcase and the window seat frame. Nail into place. This should be a snug fit.

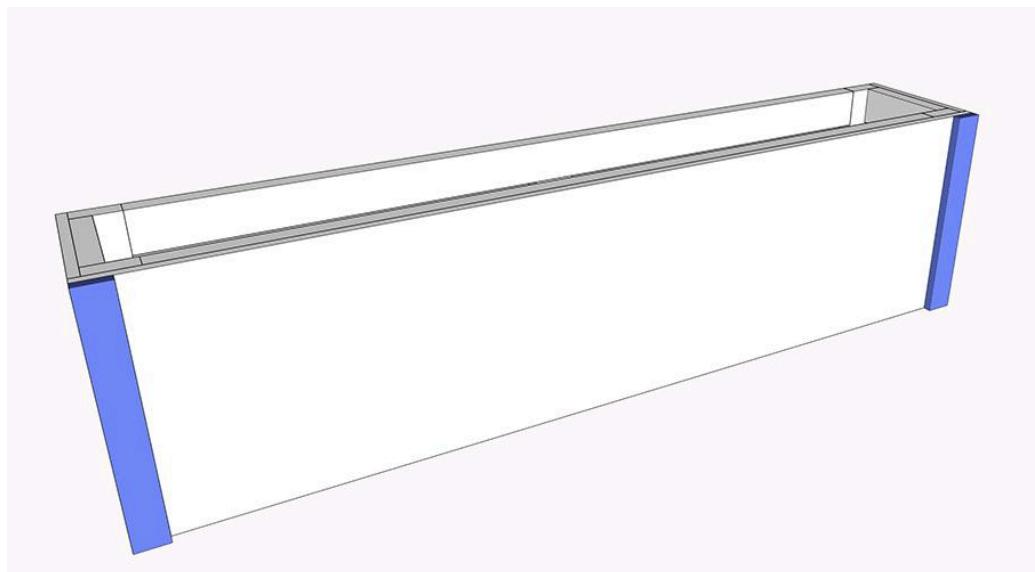


Step 4- Nail Window Seat Front On

Position MDF window seat front onto the frame and glue and nail into place.

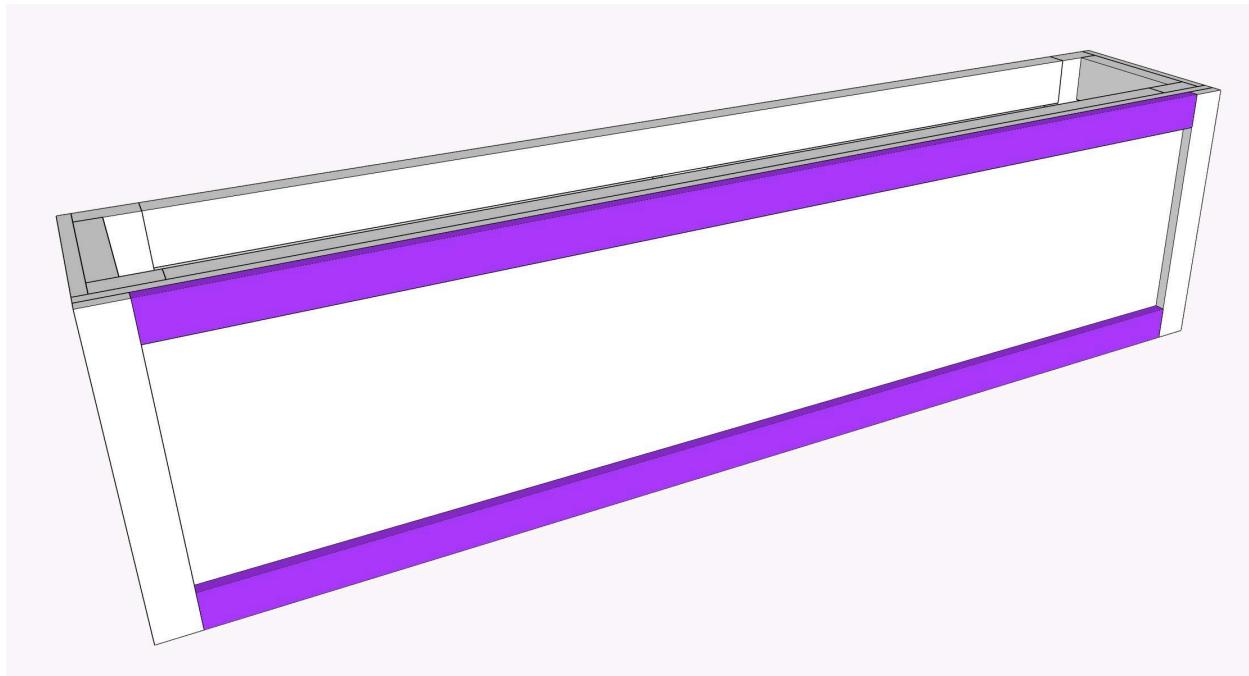


(Step 4, viewed from above)



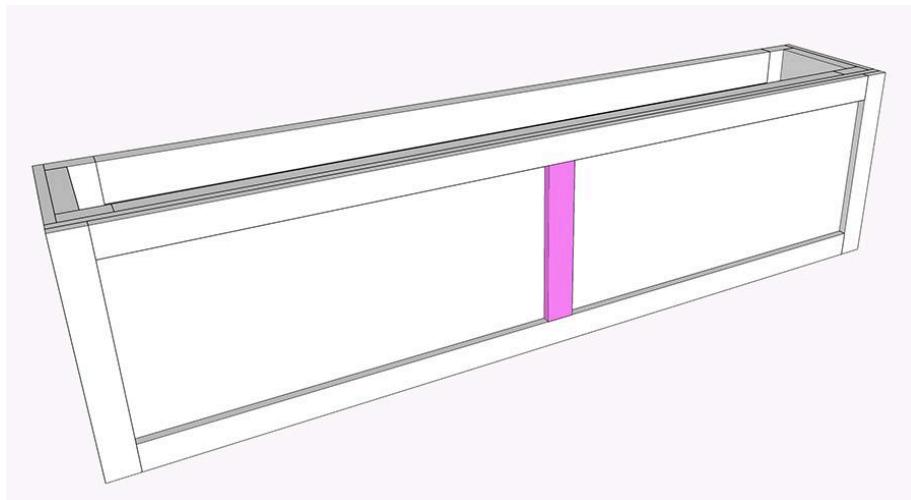
Step 5- Attach Window Seat Height Trim

Glue and nail the 1x3 height trim flush along either end of the window seat front.



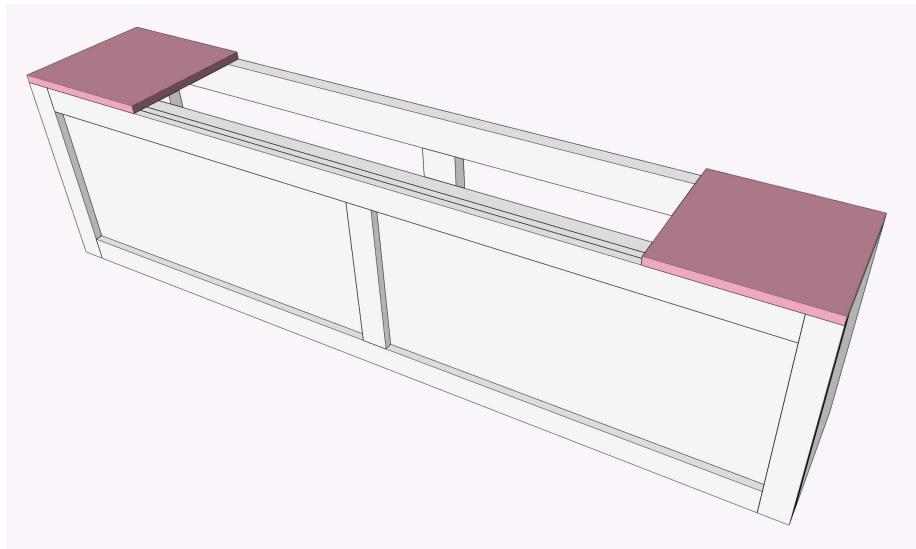
Step 6- Attach Window Seat Length Trim

Glue and Nail the 1x3 length trim along the top and bottom of the window seat front.



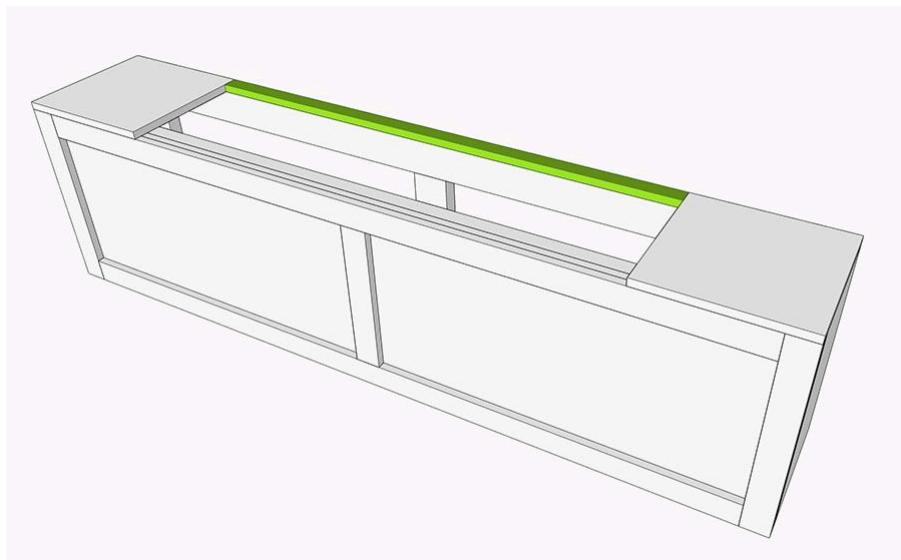
Step 7- Attach Center Trim

Glue and Nail the 1x3 center trim to the window seat front, making sure it is completely centered.



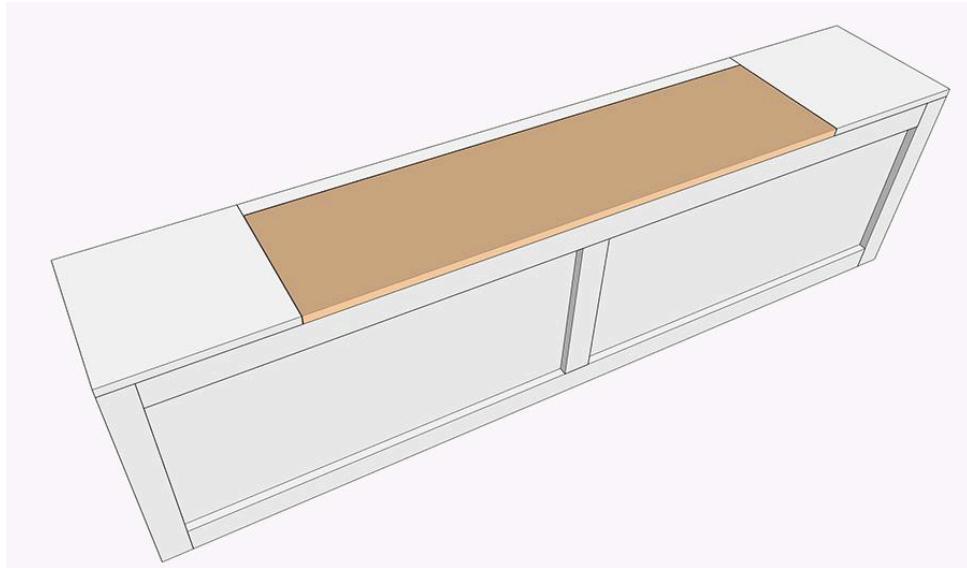
Step 8- Attach Window Seat Top Pieces

Using glue and nails, attach the top pieces on either end of the window seat, making sure they are flush with the front edge of the trim.



Step 9- Attach Lid Hinge Support

To attach the lid hinge support piece, fit it snugly between the two top pieces, and pre-drill holes down into the 2x4 frame. Then attach using glue and 2" screws. This is going to be what you attach your piano hinge to and it needs to be strongly secured.



Step 10- Attach Piano Hinge to Bench and Lid

Attach the piano hinge to the lid first, then with assistance, attach it to the lid hinge support. Allow space on either side of the lid so there is clearance without rubbing.