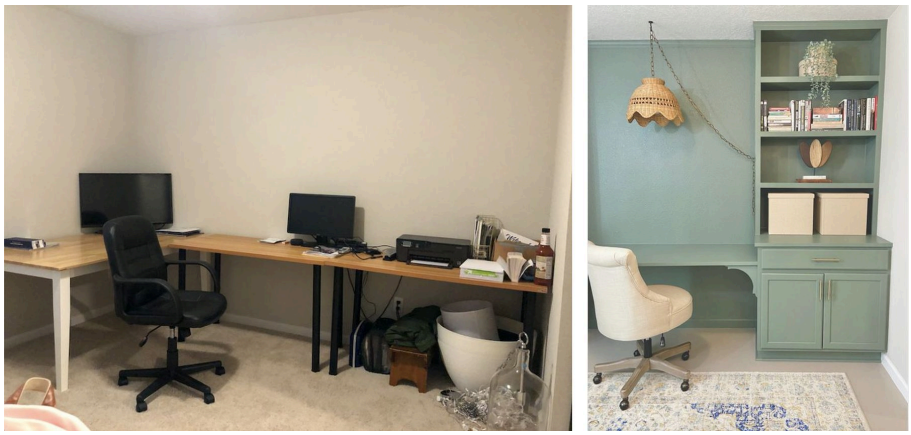
DIY Office Built-ins

Build a wall of office built-ins with a desk in the middle, using kitchen base cabinets, plywood countertops and custom bookshelves. Our wall is 11' long with a 5' desk, but you can size this to fit any wall.



Before (left) and after (right)

Tools

- [ ] Miter saw or circular saw
- [ ] Table saw (to rip the trim)
- [ ] Cordless multi-tool
- [ ] Brad nailer
- [ ] Cordless drill and drill bits
- [ ] Kreg Jig
- [ ] Tape measure
- [ ] Level
- [ ] Speed square
- [ ] Stud finder
- [ ] Utility knife
- [ ] Hammer or pry bar
- [ ] Screwdriver
- [ ] Clamps
- [ ] Hand sander
- [ ] Putty knife
- [ ] Caulk gun
- [ ] Paint brush
- [ ] Paint roller with an extension pole

- [ ] Microfiber roller covers
- [ ] Paint tray
- [ ] Drop cloth
- [ ] Dust masks
- [ ] Safety glasses

Supplies

- [ ] Kitchen base cabinets, 36"W x 24"D x 34.5"H (2)
- [ ] Toe kicks (2)
- [ ] Corbels (2)
- [ ] Wood shims
- [ ] Wood glue
- [ ] 2" screws with washers
- [ ] 1 1/2" screws
- [ ] Pocket-hole screws, 1 1/4"
- [ ] Brad nails: 3/4", 1" and 1 1/2"
- [ ] Wood filler
- [ ] Sanding discs, rough and fine grit
- [ ] Paintable caulk
- [ ] Painters tape
- [ ] Paint: Pinecone Hill, Benjamin Moore, lightened with Ultra Pure White (1 tablespoon of white per cup)
- [ ] Cabinet hardware

Lumber list

Material	Used for
3/4" poplar plywood	Countertops, desk and bookshelves (4 sheets for the bookshelves)
1 1/2" x 3/4" poplar boards	Countertop, desk and bookshelf trim
Shoe trim	Bottom of the cabinets
2 1/2" decorative molding	Top of the bookshelves
Scrap wood	Corner shims and desk support strips

Bookshelf cut list

Each bookshelf is 37" x 12" without trim and sits on one base cabinet.

Qty	Part	Size
2	Backs	35 1/2" x 61"
4	Sides	12" x 61"
2	Tops	35 1/2" x 11 1/4"
6	Shelves	35 1/2" x 11 1/4"

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Office plan



Step 1: Prep the floor

I pulled up the carpet and painted the concrete floor before building. See the How to Paint Concrete Floors tutorial for the steps.

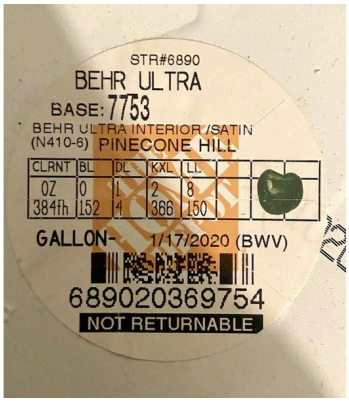


Step 2: Paint the back wall

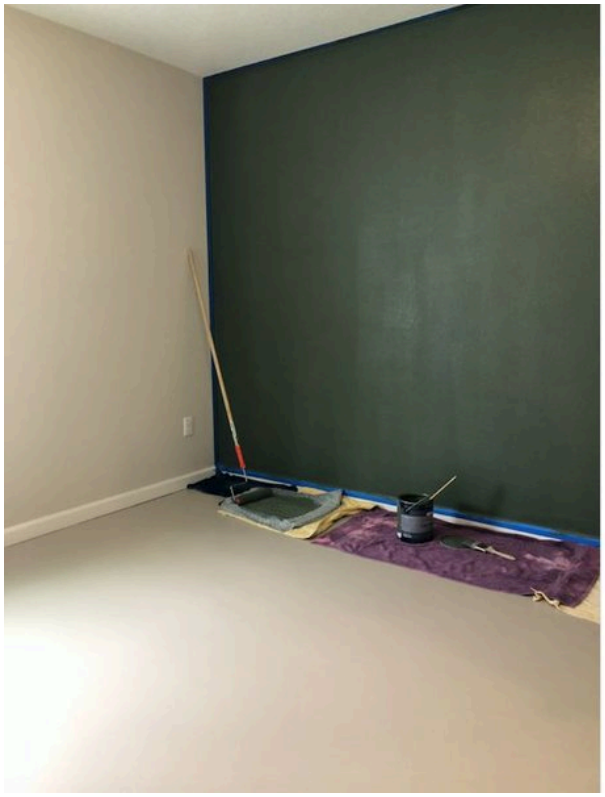
Paint the back wall before you install anything so you don't have to cut in around the cabinets and bookshelves later. Remove the outlet covers, tape over the outlets and tape the edges of the wall. On textured walls, paint can still get behind the tape.

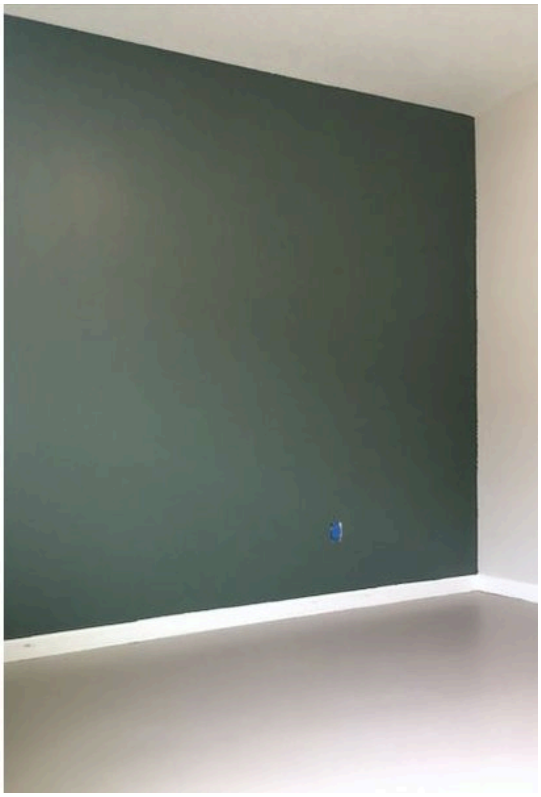
I used Pinecone Hill and lightened it with 1 tablespoon of Ultra Pure White for every cup of paint.







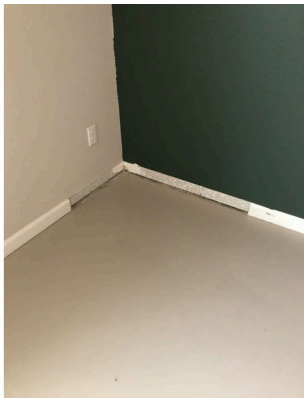




Step 3: Cut out the trim where the cabinets go

Measure the width and depth of each cabinet and mark it on the baseboard, starting the measurement at the wall, not the trim. Add at least 1/8" so the cabinet slides in. Cut the trim with a multi-tool, score the caulk with a utility knife and pry the trim off.





Step 4: Install the base cabinets

If an outlet will sit behind a cabinet, measure it and cut the opening in the cabinet back with the multi-tool before you install it. Don't try to cut it after the cabinet is in.

Set each cabinet in place and level it with wood shims. Fill any gaps along the back and side walls with shims and trim the excess with a utility knife. Find the studs and screw the cabinet to the wall with 2" screws and washers.







Step 5: Install the toe kicks

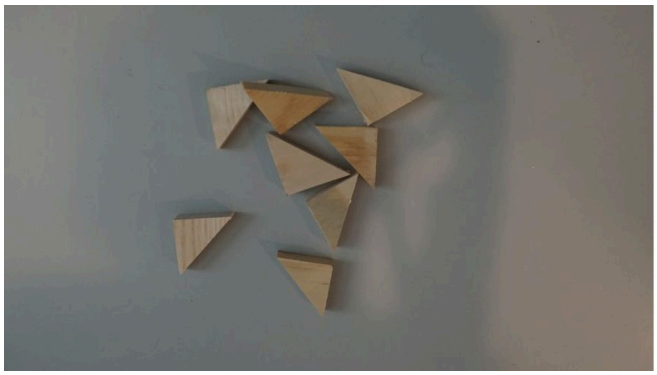
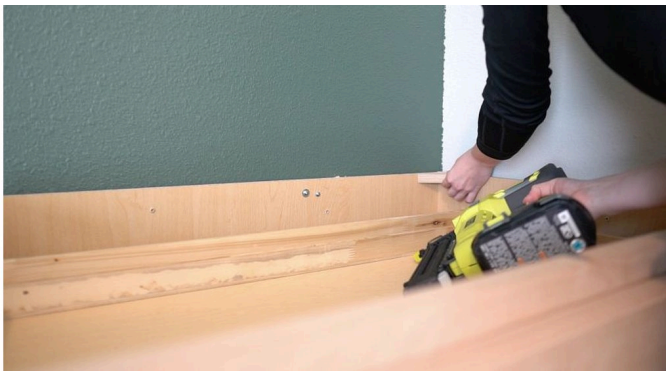
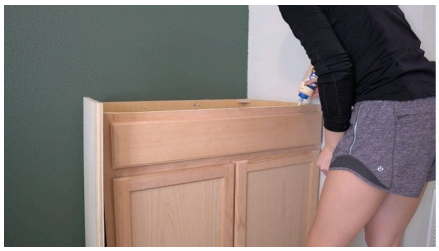
Cut the toe kicks to the width of each cabinet front. Glue the back and attach them with a few 3/4" brad nails.




Step 6: Install the countertops

Cut 3/4" poplar plywood to 36" x 24" for each cabinet. You'll add trim to the edges in Step 8.

Cut triangle shims from scrap wood and nail one into each top corner of the cabinet with 1" brad nails. They give you something to screw the countertop into. Put wood glue along the top of the cabinet, set the countertop in place and weigh it down or clamp it while the glue sets. Pre-drill up through each corner shim and screw the countertop down with 1 1/2" screws.



Step 7: Install the desk and corbels

Cut 3/4" poplar plywood to 5' x 23 1/2" for the desk. Nail wood support strips to the inside of each cabinet with 1" brad nails, and screw a support strip into the studs on the back wall. My desk height is 30".

Put glue on the strips, set the desk in place right behind the lip of the cabinets and secure it with brad nails along the edges. Nail the corbels to the cabinets and desk with the brad nailer. They're decorative.








Step 8: Trim the countertops and desk

Rip 1 1/2" x 3/4" poplar boards down to 1" x 3/4" so the trim isn't too thick. Cut the countertop trim corners at 45 degrees and cut a straight piece for the desk. Attach everything with wood glue and 1 1/2" brad nails.



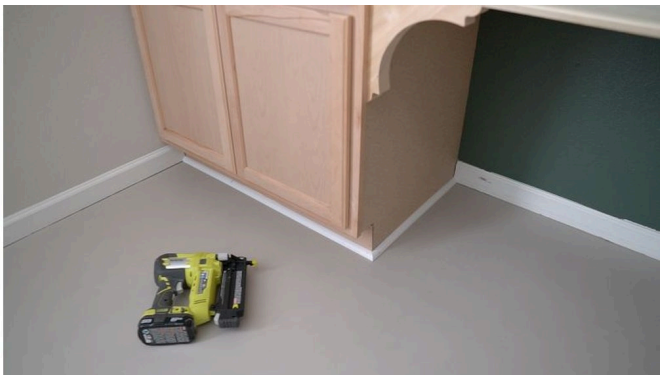




Step 9: Install the shoe trim

Install shoe trim along the bottom of each cabinet, cutting the corners at 45 degrees. Secure it with wood glue and 1" brad nails.





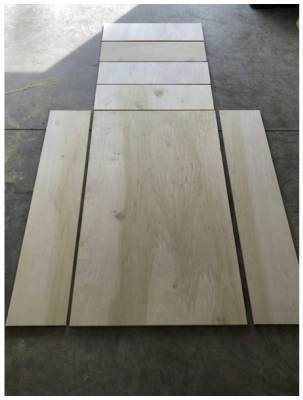
Step 10: Build and install the bookshelves

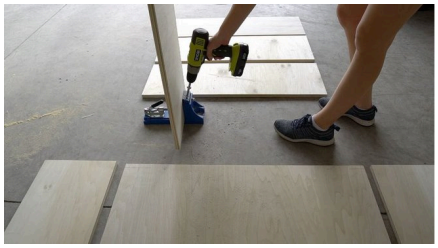
Use the cut list above. Lay out the pieces and mark the pocket holes. Each shelf and top piece gets 2 pocket holes on each side and 2 along the back. Put 4 to 5 pocket holes along each side of the back piece.

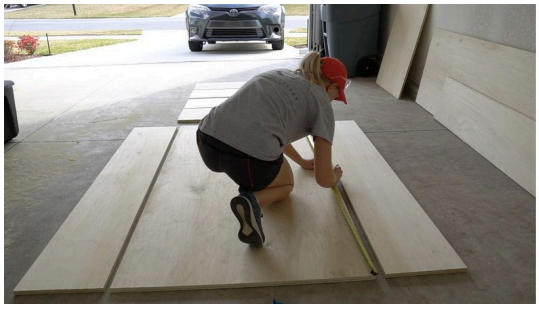
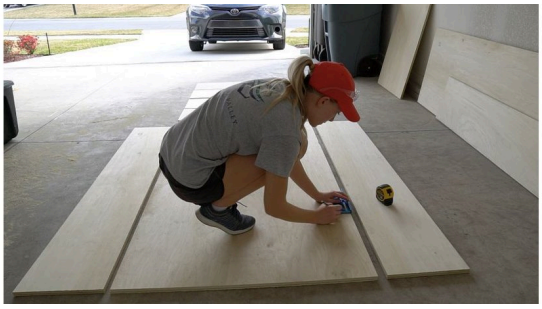
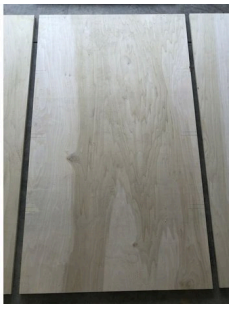
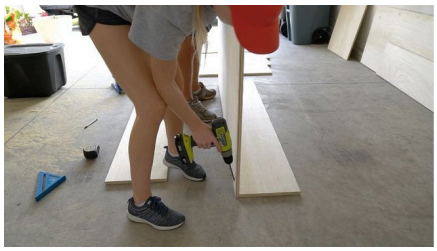
On the back piece, mark a 3/4" gap for each shelf with a pencil and speed square. Make sure they're evenly spaced.

Assemble the sides to the back with 1 1/4" pocket screws and wood glue. A second person helps hold the back up. Then add the shelves the same way, measuring at the top and bottom of each shelf so it's straight and level.

Find the studs, set each bookshelf on its cabinet, pre-drill and screw it to the wall with 2" screws. Countersink the screws so you can fill the holes later.







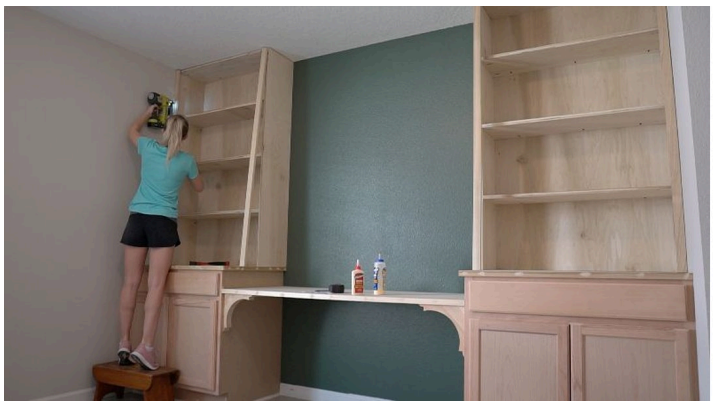







Step 11: Trim the bookshelves

Measure and cut the vertical trim from the bottom of the cabinet to the ceiling. Attach it with wood glue and 1 1/2" brad nails. Then trim each shelf front, centering the trim on the shelf so there's a small lip to push books against. Finish with decorative molding along the entire top, cutting the corners at 45 degrees, and nail it in place.






Step 12: Fill nail holes and gaps

Fill all the nail holes and gaps with wood filler.



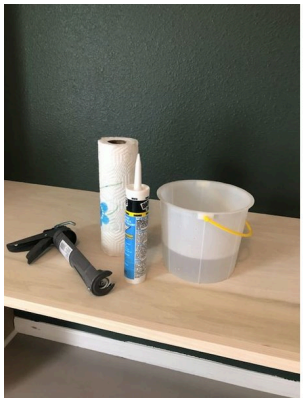
Step 13: Sand

Wear a mask and safety glasses and cover the vents. Sand every surface, starting with a rough grit and moving to a fine grit until it's smooth.



Step 14: Caulk the seams

Vacuum and clean the built-ins first. Run a small bead of paintable caulk along every seam, then smooth it with a wet finger or wet rag.









Step 15: Prep for paint

Tape off all the edges and lay down drop cloths. Clean up all the dust one last time. Take the cabinet doors and drawers off with a screwdriver and prep them for paint too.



Step 16: Paint

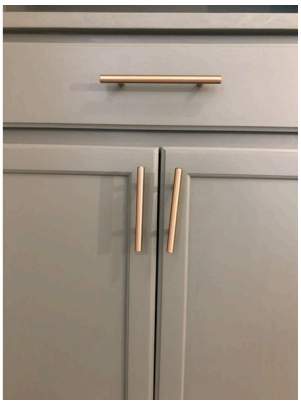
Paint the entire built-in wall, including the trim, in the same color as the back wall.



Step 17: Reinstall the doors and add hardware

Put the doors and drawers back on and install the cabinet hardware.



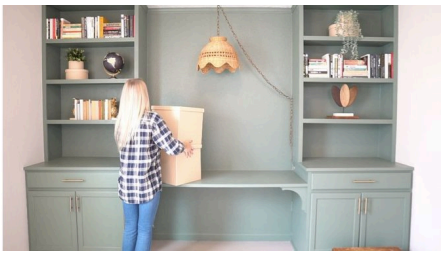


Step 18: Style the shelves

Let the paint cure for about a week before you put anything on the shelves.












More from this project

- Watch Part 1 on YouTube
- Watch Part 2 on YouTube
- Watch the built-in reveal on YouTube
- How to Paint Concrete Floors