

Mid-Century Credenza

Thoughtful details and modern joinery merge in this sleek design

BY LIBBY SCHRUM



Mid-Century Modern furniture has not been wildly popular since, well, the mid-century. But fashion is cyclical, and with its simple, elegant lines, the style has returned to the limelight at auction houses, on eBay, in woodworking shops, and in the media.

This cabinet's straightforward construction is a perfect application for the Festool Domino joiner. Growing in popularity, the Domino is a great joinery tool for building cabinets. I will explain how to build simple jigs that expand the Domino's capabilities and add personal details in keeping with the style.

Cut the mortises in the sides, top, and bottom

To add visual interest to the cabinet, I created offsets where the top and bottom of the carcass meet the sides. I made the top offset deeper to accommodate a sheet of glass. You can simplify cutting offset mortises by using shims with the Domino.

For the carcass, I made two shims the size of the fence on the Domino, and cut out a notch in each so the guide line would be visible. I made one shim $\frac{3}{8}$ in. thick and the other $\frac{1}{8}$ in. thick. Using the shims allowed me to offset



parts while limiting the number of joinery setups and taking out some of the math.

With the $\frac{3}{8}$ -in. shim in place, set the Domino's fence so the cutter is centered in the thickness of the top. Then, with the depth of cut set to 25 mm, cut mortises into each end of the carcass top. Remove the shim, reduce the depth of cut to account for the thickness of the sides, and cut the mortises at the top of each carcass side. Repeat these steps using the $\frac{1}{8}$ -in. shim to cut the mortises at the bottom of the cabinet.

Rout a groove for the back panel, then tackle the center divider

At the router table, using a $\frac{1}{4}$ -in. straight bit, cut a groove for the back panel. The top and bottom pieces get through-grooves, but you'll need to start and stop the grooves on the sides of the cabinet. After each pass, adjust the fence away from the bit a little at a time until the $\frac{3}{8}$ -in.-thick back panel fits in the groove.

To cut mortises in the carcass top and bottom for the center divider, I clamp a piece of $\frac{3}{4}$ -in. MDF in place as a fence. I draw lines on the fence to guide the mortise spacing. I also transfer those lines from the fence to the divider itself to guide the mortises I'll cut into its ends.

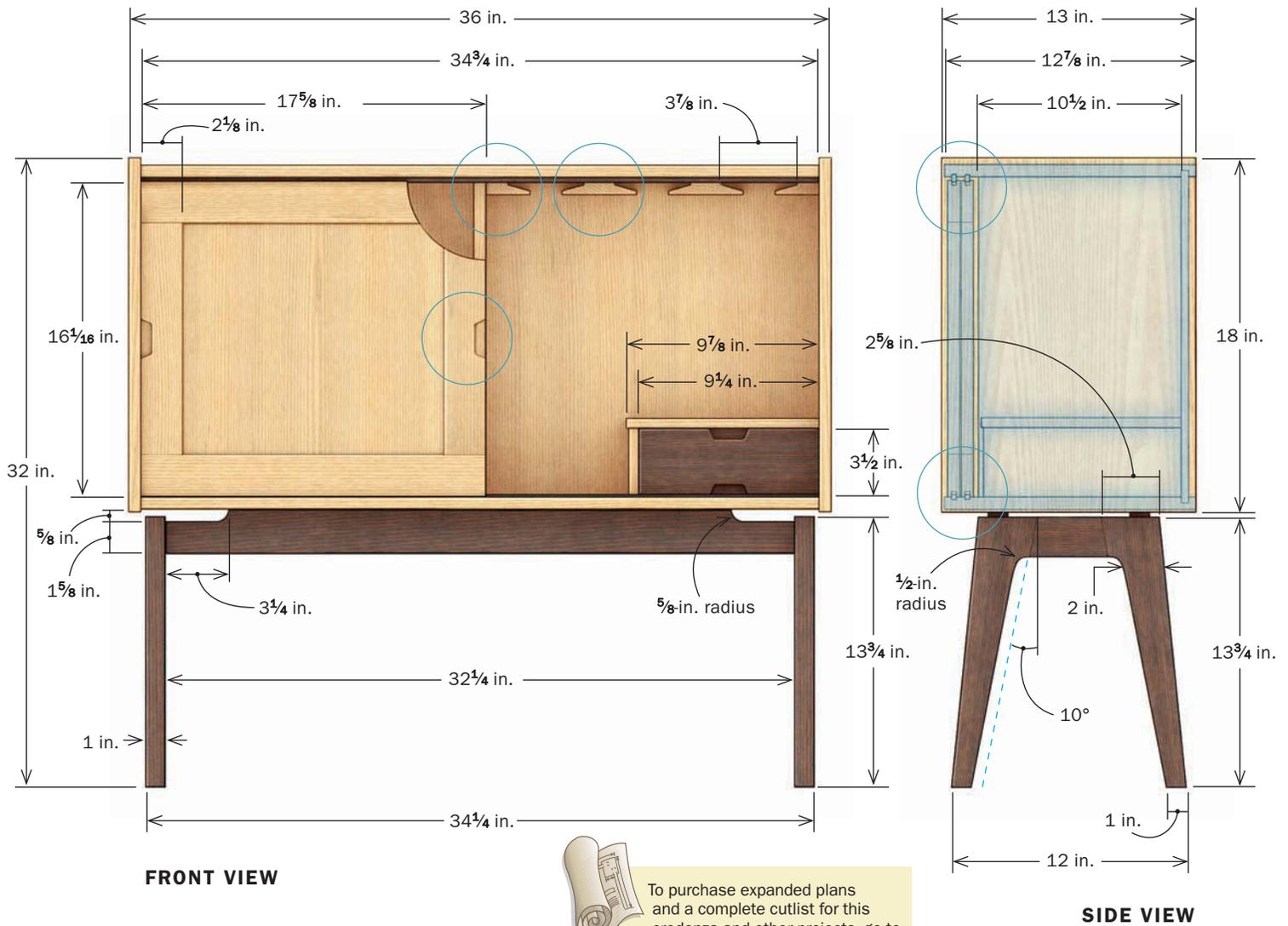
Build the drawer pocket

After cutting the top of the drawer pocket to length, determine the placement of the joinery between the top of the drawer pocket and the side of the cabinet.

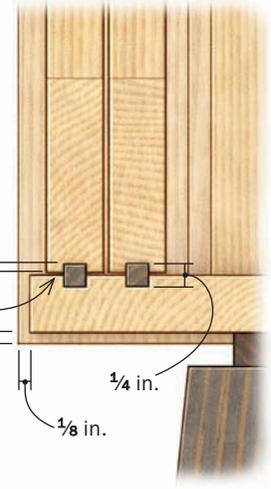
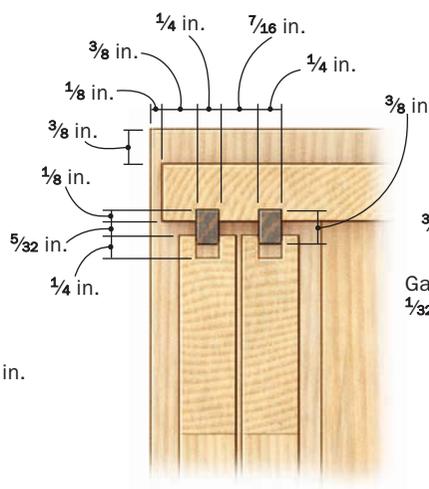
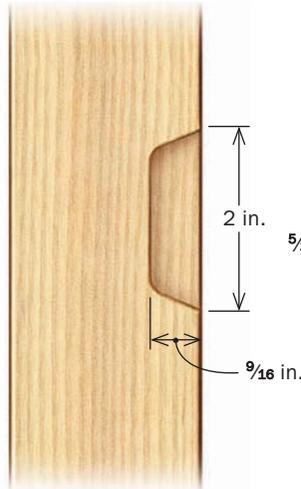
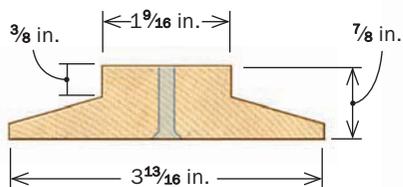
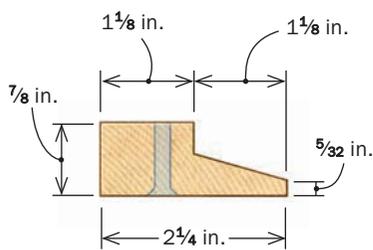


Cabinet floats on a stand

Schrum added personality to her cabinet by incorporating sliding doors, designing custom door and drawer pulls, and offsetting parts to create interesting reveals. The contrasting angular base offers sturdy support.



DETAILS

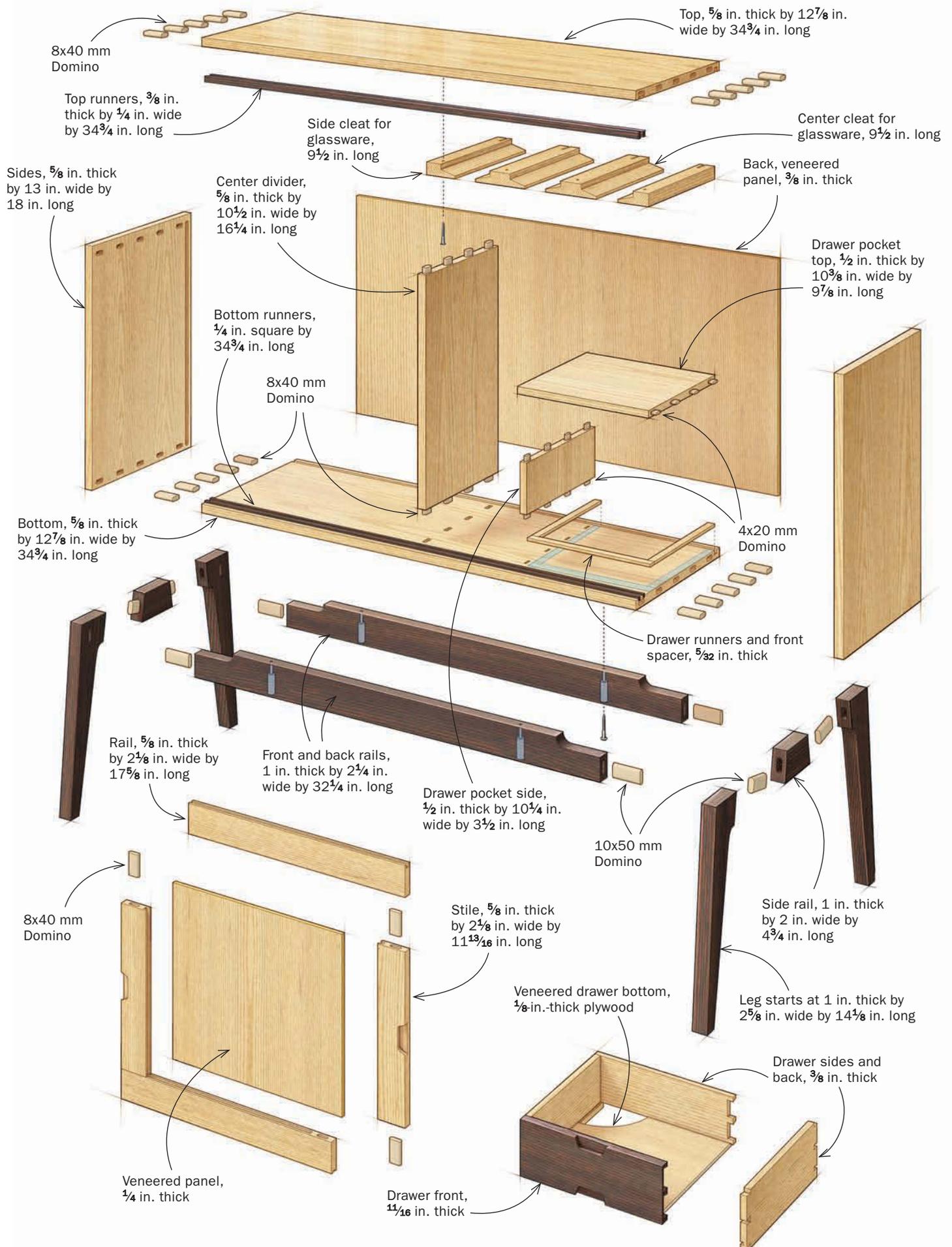


GLASSWARE RACK

DOOR PULL

TOP TRACK

BOTTOM TRACK



SHIMS HELP WITH CASE JOINERY

Schrump adds shims of two thicknesses to the Domino fence to create a larger offset at the top, a smaller one on the bottom. Shims make the joinery math-free.



THICK SHIM FOR THE TOP



Cut mortises in the ends of the top first. Attach the thicker shim to the Domino fence with double-sided tape (above left), and then center the bit in the thickness of the top (above center). Register the shimmed fence on the outside face of the top (right).

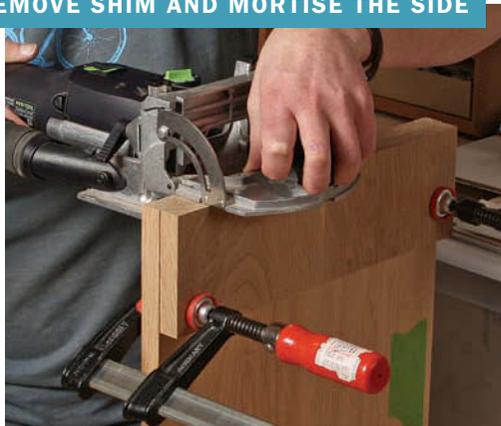


Online Extra

Take the Domino to another level by using shims to offset parts. To learn how, go to FineWoodworking.com/261.



REMOVE SHIM AND MORTISE THE SIDE



Go shimless. When the shim is removed, the offset is automatically $\frac{3}{8}$ in., the thickness of the shim. A scrap block clamped to the workpiece adds support for the Domino.

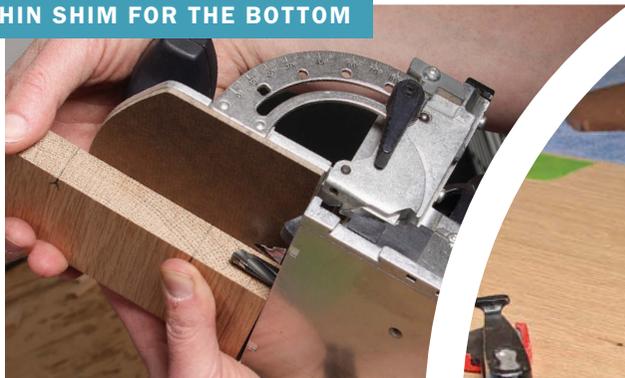
Then cut the mortises in the right end of the pocket top. Make a fence similar to the one you used for the center divider, mark the mortise spacing on it, and cut the drawer-pocket mortises in the side of the cabinet.

Now dry-assemble the bottom of the cabinet, the top of the drawer pocket, and the cabinet side. Cut the side of the drawer pocket to height. Cut mortises in each end of the drawer-pocket side, working from the same face each time. Then cut their mating mortises in the underside of the pocket top and in the carcass bottom.

Consider the grain in the door parts

I always take the time to look for wood grain that supports the form rather than working against it. In this case, super-straight, consistent grain emphasizes

THIN SHIM FOR THE BOTTOM

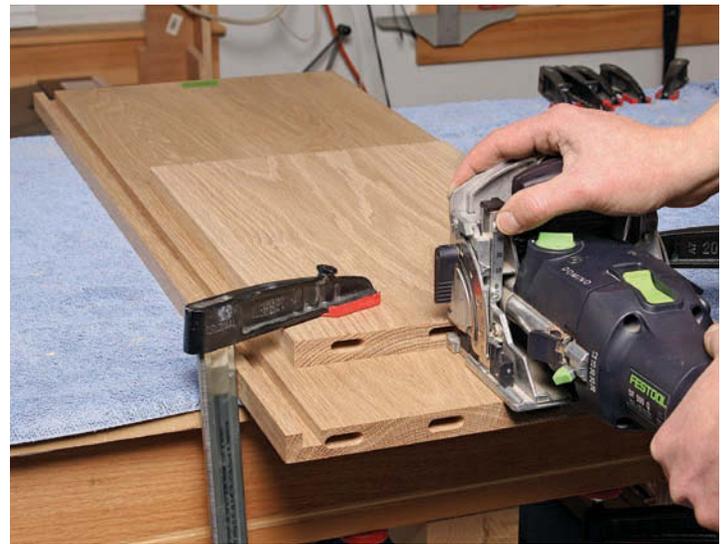


Different offset on the bottom. Attach the thinner shim to the fence, and reset the fence to center the cutter in the thickness of the stock.



USE A FENCE FOR THE DIVIDER

The rest of the mortises for the center divider and drawer box are straightforward and can be cut by registering on the base of the Domino.



Mortise for the center divider. Determine the placement of the center divider by measuring and adjusting from each end. Clamp on a fence marked with the mortise locations. Be sure to work from the same end of the cabinet and the same face of the divider to maintain consistent placement.



Drawer pocket joinery. First, cut the mortises in the edge of the pocket top. Then use a fence to locate the mating mortises (above) and cut them in the side of the cabinet.

the straight lines and right angles in the door frames, drawer front, and base.

The door rails should be long enough so the door, when closed, will overlap the divider. The stiles should be cut to allow for about a $\frac{1}{8}$ -in. gap at the top. Lay out the pieces and cut mortises for each door frame.

At this point I make preliminary grooves for the door runners; I'll cut them to full depth later. These shallow grooves will help me when I'm locating the runner grooves in the case. At the router table, using a $\frac{1}{4}$ -in. bit and fence, center a cut in a test piece or cutoff from the door-frame stock. Use the setting to cut a $\frac{1}{16}$ -in.-deep groove in the top of each top rail and the bottom of each bottom rail.

With the bit still centered, rout a groove for the floating panel in each of the stiles. Do the same for the top and bottom rails, remembering to stop the groove at each end. Start with a shallow groove and raise the bit in



Now the other side. Dry-assemble the cabinet side to the cabinet bottom and the top of the drawer pocket. Measure for and cut the drawer pocket's side, and then cut the mortises in its top and bottom edges. Finish with the mortises in the underside of the top and the top side of the cabinet bottom.

A THREE-PHASE GLUE-UP

Break the gluing sequence into three steps. But at each step, dry-fit and clamp the whole carcass to ensure everything remains straight and square.

1



Glue the drawer box. Using a spacer to hold up the right side, glue the L-shape together and to the bottom of the cabinet. Dry-fit the top and the sides and let this assembly dry completely before moving on.



2



Glue the center divider and the back to the top and bottom. Schrum adds a bead of glue to the veneered back panel where it meets the center divider. Dry-fit the sides to the assembly.



$\frac{1}{16}$ -in. intervals. Once you reach a depth of $\frac{1}{4}$ in., adjust the fence away from the bit in small increments, flipping the workpiece to run each face against the fence, until the groove is wide enough for the veneered panel. Square up the rounded ends, and leave the doors oversize for now.

Lay out the door runners

To lay out the spacing for the door runners, place a rail from the front door $\frac{3}{16}$ in. back from the edge of the bottom. Place a rail from the back door behind it, with a $\frac{1}{16}$ -in. spacer between the two, and secure the pieces with a clamp.

Use a knife or a super-sharp pencil to make a mark at the front edge of each groove and place an X on the side of the mark that will be removed. Using a test piece, set the fence to rout the first groove. Routing no deeper than $\frac{1}{8}$ in., cut the first groove in the

3



Add the sides. The final stage of the glue-up is to glue the sides to the top and bottom.

carcase top and bottom. Use the test piece to reset the fence for the second groove and repeat.

Mill stock for the runners to the width of the grooves and use a bandsaw to cut the runners to height. Keep in mind that the bottom runners should sit about $\frac{1}{8}$ in. proud; the top, about $\frac{1}{4}$ in. Leave the height a bit over-size; you'll fine-tune the runners and doors later.

It's important to remember that the drawer must travel over the door runners. To make that happen, build a three-sided spacer to elevate the drawer. Two pieces will act as runners beneath the drawer sides; the third piece simply sits beneath the drawer front, filling a visual gap.

Sand and prefinish, then glue up in stages

Sand all carcase pieces except the door runners and prefinish all inside surfaces. Sand and finish both door panels and any surfaces adjacent to the panel. Final sanding and finishing of exterior surfaces and doors happens after glue-up. For this piece I used Minwax Wipe-On Poly. It is easy to apply, and the built-up film is more protective than an oil-rubbed finish.

Rehearse the steps of the carcase glue-up with several dry runs to make sure you assemble each piece in the right order. Also, work in stages. Don't glue in the door runners yet.

Fine-tune the fit of the doors on the runners

When the cabinet is glued up, the doors are glued up and rough-sanded, and the runners fit in the grooves perfectly but are a bit oversize, it's time to fine-tune. Starting with the runners, trim and sand them to $\frac{1}{8}$ in. proud at the bottom and $\frac{1}{4}$ in. proud at the top.

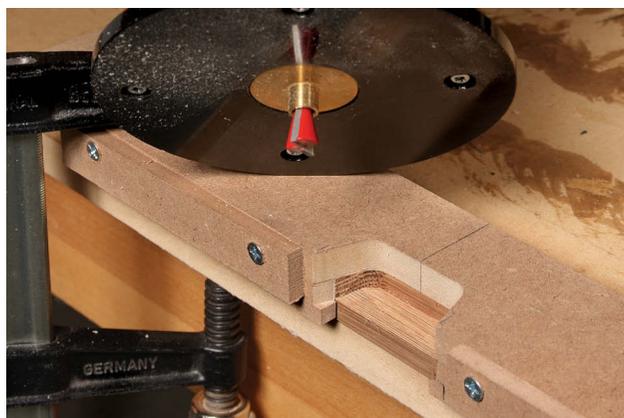
Back at the router table, use a $\frac{1}{4}$ -in. straight bit to deepen the runner grooves in the top and bottom edges of the doors. Be sure the grooves are slightly wider than the runners so that they slide freely. They should not be so loose that they rattle but also not so snug that they bind. The groove on the bottom of each door should only be as deep as to allow the doors to sit about $\frac{1}{32}$ in. to $\frac{1}{16}$ in. above the bottom of the cabinet. The groove at the top must be deep enough that the door does not bottom out when you lift it upward and swing it into place over the bottom runners. Hand-planing the top of each door and putting

INTEGRAL DOOR PULLS ADD FLAIR

To keep with the unadorned aesthetic, Schrum designed and cut a stylish but subtle pull into the door stile.



Start with a template and a straight bit. Rout most of the waste with a straight bit and rub collar in a handheld router.



Go back over it with a dovetail bit. This creates an angle along the inside of the pull. Use a chisel afterward to fine tune the shape.



Glue up the door. With the mortises, panel grooves, preliminary runner grooves, and drawer pulls all cut, it's time to glue up the door parts and the veneered door panels.

MID-CENTURY MODERN AESTHETIC

The tapered legs and scalloped rails “lift” the cabinet from the stand.

Angle legs and rails. After tapering the legs, use a skewed fence on a crosscut sled to cut the top and bottom angles (left). Also using a skewed fence, cut the angled ends of the short rails (right). Finally, mortise the parts.



Legs are tapered and curved.

Having ripped the initial taper into the legs with a jig on the tablesaw, use the bandsaw to rough-cut the secondary taper and curve. Glue the legs to the short rails, then template-route the unit to final shape.



Final base assembly. Glue the legs to the short end rails first (above right), then link them to the long rails (right).



FINISHING TOUCHES

All the little details make this piece special: wenge door runners, glass racks, custom door pulls, and a base that floats the case.

Door runners.

Sand and fit the four runners (two in the top and two in the bottom of the case) in their grooves, and glue them in place.



Glass racks.

Simple angled strips screwed into the top hold stemware. The strips have slotted screw holes to accommodate wood movement.

a slight bevel on the front edge of the groove on each door can help perfect the fit. Once the runners are glued in, a wax-only finish will keep the doors moving smoothly.

Add glass racks

It's best to have the glasses and stemware that will be stored in the cabinet available when designing. The racks should be tailor-made to fit the stemware. Remember, like the drawer, each glass that hangs will have to pass the runners, so design the racks to hang low enough for the glasses to slide in smoothly.

Cut custom pulls into the doors and drawer

First, make a template to guide the router in shaping the pull. Use the tablesaw to make the angled cuts, and then connect those angled cuts on the bandsaw and use the side of the blade to then shave off the last little bit. Using double-sided tape to secure the template, rout most of the waste with a flush-cutting straight bit and rub collar in a handheld router. Then use a dovetail bit with a rub collar to create an angle along the inside of the pull, making sure to leave the edge square. Use a chisel to fair the dovetail angle into the square edge. Once you've created the pulls on each of the doors, trim both sides of each door the same amount until both doors perfectly overlap the divider.

The final stretch

Now tackle the wenge drawer and stand. Wenge is a beautiful wood with a striking contrast to white oak. I created a template for the legs and used the Domino to cut the mortises. Glue the legs to the short end rails first, then cut the joinery for the long rails.

Finally, sand and finish the outside of the carcass as well as the doors and the other components. □

Libby Schrum teaches woodworking and builds custom furniture out of her studio in Camden, Maine.



Attach the base to the case. Schrum screws the base to the case. The front and back rails have a curved cutout on the ends and are wider than the short end rails. This creates an illusion of lift.



Add the drawer and doors. Slide the drawer in place, and add the doors. They slot in at the top (the grooves in the top of the doors are deeper than at the bottom) and rest on the bottom runners.