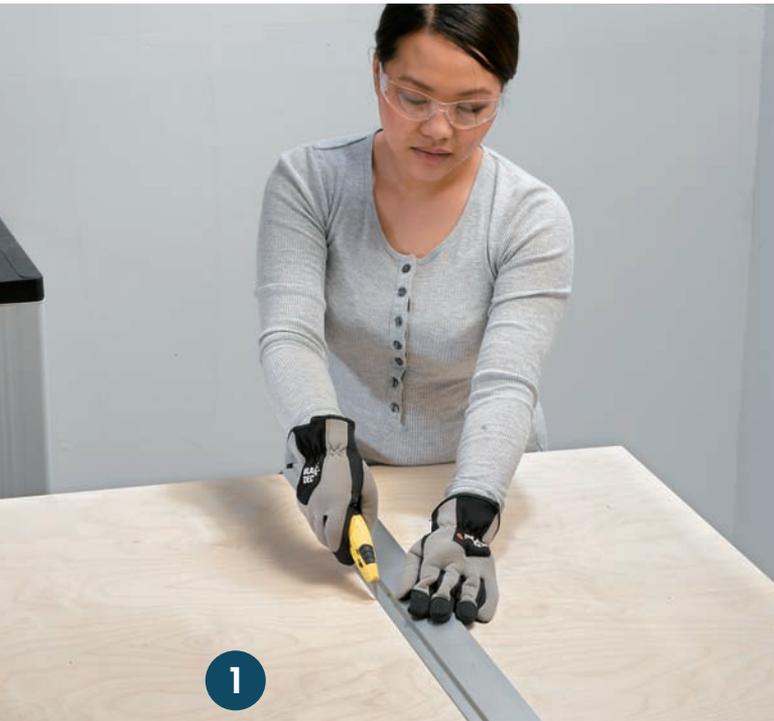
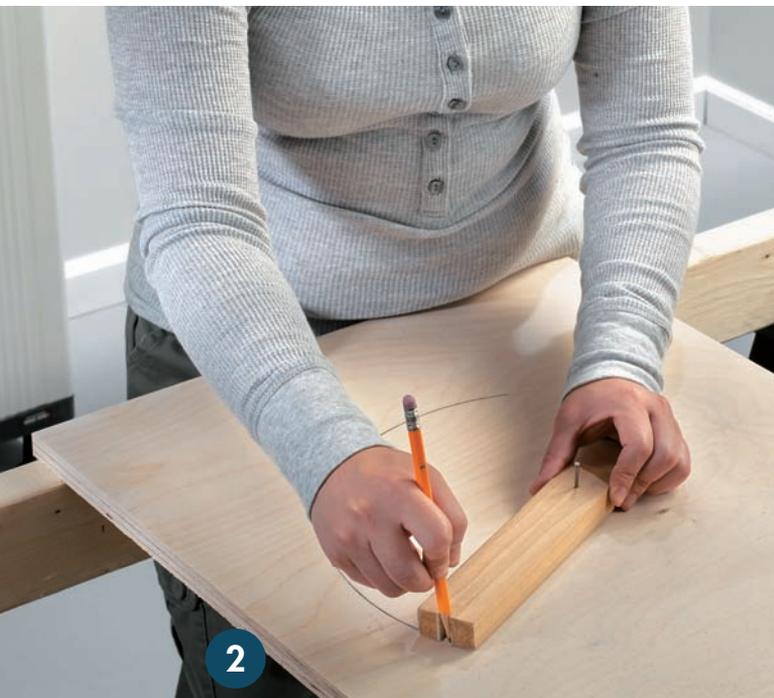




How to Build a Nightstand/Bed



Score along the cutting line with a utility knife using your straightedge as a guide.



Mark a circular cutting line on the center of the side box panel using a 1 x 2 compass.

CUT THE BOX PANELS

This project can be built to any size, so the first step is determining the dimensions of the finished box. If you're using the dog bed as an end table, you'll want the top surface to be at an appropriate height in relation to your other furniture and at a good height for your bed.

The inside dimensions of the box must fit your dog properly, so you may have to alter the proportions of the box to achieve the desired height and interior space. It's a good idea to purchase the bed mat or pillow before finalizing your plans because the right fit and style of the mat makes all the difference in the overall look of the piece.

As shown, the overall dimensions of the dog bed form a 23½" cube, including the 4"-tall legs. Be sure to account for the height of the legs you will use when calculating the box dimensions.

Cut the box panels from a full 5 x 5-ft. sheet of ¾" Baltic birch plywood or a 4 x 8-ft. sheet of other hardwood-veneer plywood. If you plan to paint the box, you can use ¾" MDF instead of plywood. Make the cuts with a circular saw and use a straightedge guide to ensure straight cuts. To prevent burn marks, keep the saw steady and move it continuously through each cut.

MARK THE SIDE CUTOUTS

Each side panel gets a porthole-style cutout in the center of the panel. As shown, the hole is 13" in diameter; the top and bottom edges of the hole are 2½" from the top and bottom edges of the panel. If your dog bed is a custom size, subtract from the height of the side panel to find the hole diameter.

Cutting Plywood



Always cut from the least visible side of the plywood (the side that will be concealed most in the finished product). When cutting across the grain of the face veneers, make a score cut along the cutting line with a utility knife to prevent splintering during the saw cut (photo 1).

Mark the center of each side panel by placing a straightedge diagonally along opposing corners of the panel, then tracing along the straightedge near the panel's center. Repeat the process with the straightedge aligned with the other opposing corners to create an X in the panel's center. The intersection of the X is the centerpoint.

Cut a scrap 1 × 2 or a strip of cardboard to about 8" in length. On one end of the stick, use a utility knife to make a small V-shaped notch in the center of the bottom edge. Measure from the notched end and make a mark 6½" (or half the cutout diameter) on the top of the stick. Drill a pilot hole through this mark for a finish nail.

Drive the nail through the pilot hole in the stick and into the centerpoint on the side panel. Set a pencil in the notch of the stick, then rotate the stick in a full circle to create a continuous cutting line with the pencil (photo 2).

COMPLETE THE SIDE CUTOUTS

Drill a starter hole for a jigsaw blade on the interior side of the marked cutout on each side panel using a ¼" or ⅜" drill bit, as appropriate. The outer edge of the starter hole should just touch the cutting line. Complete the cutout with a jigsaw and fine-tooth blade designed for clean plywood cuts (photo 3).

If desired, round over the edges of the cutout using a router and ⅜" piloted roundover bit. When setting the bit depth, be sure to make test cuts on scraps of plywood, and rout the edges on both sides of the scrap so you'll know exactly what the finished edge will look like.

ASSEMBLE THE SIDE AND BOTTOM PANELS

Wipe off all dust from the bottom edges of the side panels and from the top face of the bottom panel. Apply wood glue to the bottom edge of each side panel and set the side panel on top of the bottom panel so all outer edges are flush. Clamp each side panel in place with two bar clamps.

Drill pilot holes through the bottom face of the bottom panel and into the edge of the side panel, and fasten the panels with 6d finish nails. Drive the nails slightly below the surface of the wood with a nail set (photo 4). Tip: To keep the side and bottom panels square while the glue



Make the side hole cutout with a jigsaw and a fine-tooth blade.



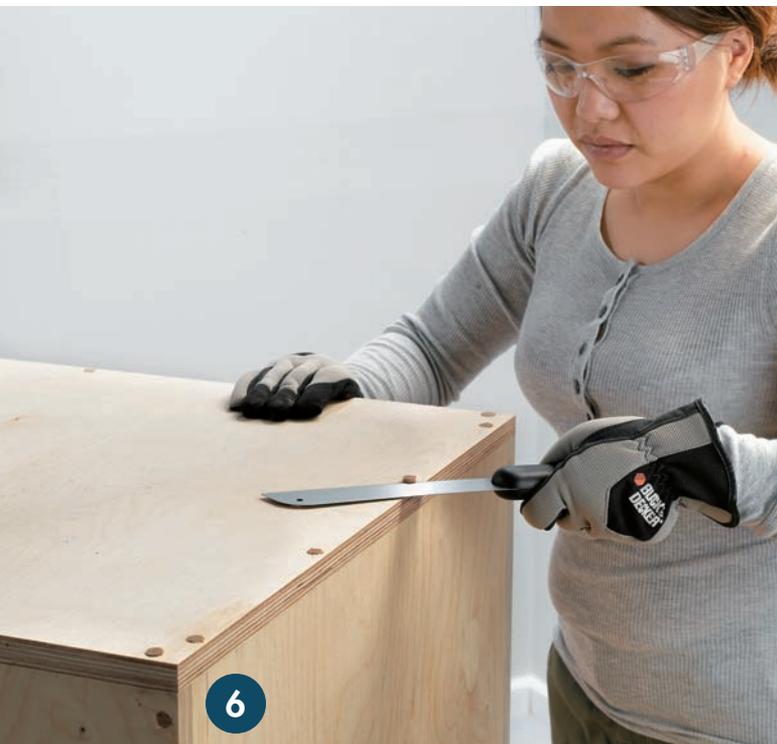
Set the nails in the bottom panel with a nail set. Clamp the side and bottom panels together with two bar clamps on each side.

dries, slip the back panel in between the side panels so it fits tightly against all three panels. Let the glue dry as directed, then remove the clamps.



5

Tap the dowel into the side panel (and edge of back panel) using a hammer or wood mallet. Apply glue sparingly so there's not too much squeeze-out.



6

Trim $\frac{3}{8}$ " dowel flush with top panel using backsaw or Japanese saw.

ADD THE BACK PANEL

Since the outside faces of the side and top panels are exposed, the back and top panels are fastened with hardwood dowels instead of finish nails. This process takes longer than using nails, but the result is a nice hand-built look. If desired, you can use nails in place of dowels following the same process used for the side and bottom panels. Just fill the nail holes on the side and top panels with color-matched wood putty before finishing the piece.

To install the back panel, mark the dowel locations onto the outside face of each side panel $\frac{3}{8}$ " from the back edge of the panel; locate one dowel $\frac{3}{4}$ " from the top and bottom edges of the side panel and two dowels spaced evenly in between.

Clamp the back brad point panel between the side panels so all outside edges are flush. Apply a band of masking tape around a $\frac{3}{8}$ " brad point drill bit $1\frac{7}{8}$ " from the cutting end, or install a depth stop collar at the same location.

Drill a dowel hole at each mark, stopping at the tape on the bit so the hole is $1\frac{7}{8}$ " deep. Hold the drill level and square to the side panel as you work. Use a sharp bit, and start it slowly to prevent splintering the plywood face veneers.

Cut the dowels to length at $1\frac{3}{4}$ " using a hand miter box and backsaw or a power miter saw.

Remove the back panel, then apply wood glue to its edges and set it back into place. Working on one side at a time, squirt a small amount of glue in each dowel hole, before inserting the dowel into its hole.

Tap the dowels into the holes so they are nearly flush with the plywood surface (photo 5). Wipe up any excess glue with a damp cloth. Quickly complete the same process to secure the other side panel, then clamp the assembly with bar clamps. Let the glue dry.

INSTALL THE TOP PANEL

Prepare and secure the top panel to the side and back panels using the same techniques used when installing the back panel. Locate the dowels $\frac{3}{4}$ " from the front, back, and side edges of the top panel, and space two dowels evenly in between along each edge. Let the glue dry completely.



Sand a 45° bevel on the front side or front top edge of the completed box using sandpaper and a wood sanding block (not a sanding sponge).

Sand the dowels flush to the surrounding surface with medium- and fine-grit sandpapers using a sanding block to prevent unevenness. Be careful not to sand through the thin face veneers of the plywood.

FINISH THE BOX

Sand all surfaces inside and outside the box with fine sandpaper. Also sand or rout a slight bevel or roundover on all of the exposed edges and corners (photo 7).

What to Do about Long Dowels

If any of the dowels is too long to sand, trim it flush (or nearly flush) using a backsaw or Japanese flush-cutting (peg-cutting) saw (photo 6). Be careful not to scratch the plywood face with the saw teeth. Then sand the dowel flush with a random orbit sander.



Drive a mounting screw through the leg mounting plate and into the bottom panel of the finished box.

Fill any chips and nail holes with color-matched wood putty. Let the putty dry, then sand it smooth with fine sandpaper.

Clean the surfaces thoroughly to remove all dust. Apply the stain and/or protective finish of your choice following the manufacturer's directions. Three coats of clear (or with stain added) oil-based polyurethane provides a tough, washable surface that's durable enough for both a dog bed and a tabletop.

INSTALL THE LEGS

Mark the locations of the table legs onto the bottom of the box. In the project shown, the legs are centered about 2" in from the front/back and sides of the box. Hold each leg in place on its layout marks, and mark pilot holes for the mounting screws. Drill the pilot holes and mount the legs with the provided screws (photo 8).

Add the mat or pillow to complete the project.