



Bat House

INTERMEDIATE

APPROXIMATE TIME: 4 1-HOUR CLASSES

TOOLS & MATERIALS

MATERIAL LIST

- 1 piece of 1/2" x 24" x 60" exterior plywood
- 1 - 1" x 2" x 72" pine strip
- 30 - #8 x 1" exterior screws (resists corrosion)
- 4 - #8 x 1 1/2" exterior screws (to fasten the roof)
- Exterior grade water-based stain, primer, and paint in a DARK colour
- Paintable latex caulk

TOOL LIST

- Table saw or portable circular saw
- Handheld drill or drill press
- Drill bits to drill pilot holes for #8 screws.
- #2 Robertson driver bit
- Caulking gun
- Paint brushes

CUT LIST

- Spacing strips (pine):
 - 1 - 3/4" x 1 1/2" x 24" (top)
 - 2 - 3/4" x 1 1/2" x 20 1/2" (sides)
- Back wall (1/2" plywood):
 - 24" wide x 26" high
- Front panels (1/2" plywood):
 - Upper panel 16 1/2" x 24"
 - Lower panel 5" x 24"
- Roof (1/2" plywood):
 - 3" x 24" (optional)

PROCEDURE

- 1 Measure, layout and cut the three panels. From your 24" x 60" piece of plywood, cut a piece 26" x 24" (back), 16 1/2" x 24" (front top) and 5" x 24" (front bottom).
- 2 Using a scratch awl or nail, scratch horizontal groves, roughly 1/2" apart, on the back panel (this will create a rough surface for the bats to cling onto).
- 3 Apply the dark water-based stain to all inside faces of your wood pieces.
- 4 Lay the back panel down, grooved side down. Pre-drill pilot holes spaces similar to what is shown on the diagram. (1/2" from the corners and outside edges, approx. 6" apart)
- 5 Place the three spacing strips under the back and screw them to the plywood. These pieces should be flush with the outside edge of the plywood. Fasten the top strip first then butt the side pieces up to it. Use #8 - 1" exterior grade screws.
- 6 Caulk the inside seam where the strips and the plywood meet. This will help provide for a weather tight / warm interior for the baby bats.
- 7 Drill pilot holes in the front pieces according to diagram.
- 8 (flip back piece with spacers attached, facing up) Before installing the front pieces, put a bead of caulking on the faces of the front and side strips. (this will also help seal the unit to provide a dry / warm interior).
- 9 Fasten the top pieces using 1" exterior screws, leaving a 1/2" space for ventilation between the bottom and top panel. Make sure plywood is flush with the sides and wipe off any excess caulking with a damp cloth.
- 10 Measure, layout and cut the piece for the roof - 3" x 24" (optional)
- 11 Caulk the top of the house and screw the roof on using 1 1/2" screws. (seal screws with caulking)
- 12 Caulk all outside joints and wipe off excess caulk.
- 13 Research the best way to mount your bat house.
- 14 Apply your exterior grade primer according to the instructions on the label, and then apply 2 or more coats of your chosen dark exterior paint finish.

 **EXTENSION CHALLENGES**

- 1 Add roofing shingles or metal roofing to your plywood roof.
- 2 Research how to and make a larger bat house with multiple “rooms”, or a bat house with specific dimensions for a local bat species.
- 3 Type up installation instructions for where to place your bat house and explain why it needs to be facing a specific direction or mounted at a certain height, etc.
- 4 Install an infrared camera so you can watch your bats roosting.
- 5 Make a bat-watching pamphlet that includes how to identify the species in your area that might use your bat house.