

Build a bluebird house...what's needed?

CNC:

Most importantly you'll need a ShopBot. Pretty much any ShopBot will work fine from the earliest cable drive to the new MAX ATC. The project is set up for a Desktop (24" x 18") or larger.....though with a little work you could use a Handibot and tiling.

Software:

We supply ready-to-cut sbp files so at a minimum you'll need the SB3 software running on your computer. We recommend however that to get the most out of this project you have software to view CAD files and create toolpaths...CAD/CAM software

The download zip file includes the VCarve Pro file that we used to create the included sbp file. It is saved in VCarve Pro v10.022 format, so any version of VCarve Pro or Aspire that's at least that recent can open and work with it.

For those that don't have VCarve Pro or haven't kept up to date with it, we've also included a dxf file which is somewhat universal and should open in just about any other CAD/CAM software. Unfortunately, the toolpathing info is lost in the dxf file, but you can download the free VCarve Pro trial version if you want to explore how toolpathing was done.

Materials:

Each birdhouse requires:

- A piece of plywood that's nominally 24" x 16" x ½",
- 3 @ 1.25" screws to mount the bottom panel
- ~ 30@ 3d galvanized box nails
- 1 @ ¼" x 3" dowel
- Fasteners to mount the birdhouse
- A small piece of rubber membrane for roof covering

You can buy a kit from ShopBot that includes enough materials to build 2 birdhouses and the files are sized for those blanks which in actuality measure 23.9" x 15.9" x 0.47". Feel free to use any material you have, but just be aware that if it varies much from being 0.47" thick you'll need to modify the design files for your actual thickness.

Purchase the kit in the ShopBot Webstore: Bluebird House Project Kit
<https://store.shopbottools.com/products/bluebirdhouse-project-kit>

Supplies:

You'll need some way to hold the blank while cutting. Our set of files include a file to drill pilot holes for 10 @ 1.25" holddown screws, and our blanks include small pieces of double-stick tape to hold the blanks

in place until the screws are installed. If you have your own system like vacuum holddown or mechanical clamping, feel free to use at your own risk.

You'll also need a 1/8" endmill (1/4" Downcut, Onsrud 57-910, [ShopBot Part No. 13507](#)) and a 1/4" endmill (1/8" Straight "O" Flute, Onsrud 61-040, [ShopBot Part No. 13728](#)) that can cut at least 1/2" deep. You can order a Desktop 7 Piece Bit Kit ([ShopBot Part No. #13698](#)) from ShopBot that includes these two bits, or use whatever bits you prefer.

In addition you'll need these common shop supplies

- A method way to cut the tabs and release the parts after the cutting is finished. There are many methods of doing this Video [Removing Tabs-Bluebird House \(6:11\)](#)
- shows several, but it can be as simple as a sharp knife or a hacksaw blade
- A drill and a 1/16" drill bit to drill pilot holes for the nails and assembly screws. This is not technically necessary, but a big help when it comes time to nail it together, especially if you are building your birdhouse with a child
- Hammer. You'll only be driving small box nails so just about anything you have will be fine
- Sandpaper or a power sander. 120 grit is about as fine as you need to go
- Tape for temporary assembly. I like the blue painters tape because it doesn't leave any residue, but really any kind will do.
- Paint and brushes. You have a lot of freedom when it comes to painting, but here's a good resource for ideas and tips for painting birdhouses:

<https://www.thespruce.com/bird-house-colors-and-painting-386632>

Optional:

- Wood glue. You don't HAVE to glue it together...the nails will hold it together just fine... but it makes a little stronger birdhouse.
- Caulk or putty to fill dogbones. This is optional, especially if you do a good job of sealing the edges of the plywood, but if you decide to putty the openings I suggest painting one coat as a primer, doing the puttying, and then finishing the painting. Also remember that you want a little air flow in your birdhouse and a way for any water to drawing, so leaf a couple of the holes open.

11/04/2020



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