Bat Box

Build Your Own Bat Box – attract bats to your yard

Did you know that one single bat eats between 6,000 and 8,000 insects PER NIGHT?

Did you know that less than 1% of bats carry rabies (far lower than the incidence in racoons)?

Did you know that a female bat (usually) only has one pup per year?

Did you know that store-bought bat boxes are generally NOT very successful.

Why do I bring this up?

Because this seems like a no-brainer for building/buying and installing a bat box near your home.

Think fewer mosquitoes, natural (and nitrogen-full) fertilizer and aid in pollination all without the risk of them multiplying like mice or bringing rabies to your family pet.

How about this – longer evenings spent outside enjoying your yard without spraying down your kids with toxic chemicals.

Why doesn't everyone have a bat box?

There are several "Bat Conservation approved" bat box plans available online, but I found them to be a bit brief, so I wanted to share the 'build your own bat boxes' I created this past week.

DIY Bat box / DIY bat house

- 3/4″ outdoor plywood
- 1 1/2″ galvanized screws
- outdoor caulking
- wood glue
- outdoor paint
- outdoor varnish/polyurethane

Cuts:

- 18 x 24″ for backing (18 x 26″ would be even better, but 24″ will work)
- 18 x 12″ for front upper
- 18 x 6″ for front lower
- 2 pieces at 18 x 1 1/2″ for sides
- 16 x 1 1/2″ for inner roof
- 18 x 3/4″ for protective ledge
- 18 1/2 by 4″ for roof (cut at a 30 degree angle along one long edge)

Bats need a way to climb up into, and roost, inside your bat box. The easiest, and most cost effective way I found was to create a ladder along the inside of your box:

Start by setting your table saw blade height to 1/4″ (or less) high and cut notches in your bat box back at every half inch.

This may seem tedious, but you can notch one side, turn the board around and notch the other end without moving your guide rail – so two cuts from each measurement. To notch my entire back it took 15 minutes, and that's with taking photos as well.


Alternatively, you could cut and staple plastic mesh to your back board, but I have read where the staples will rust and the plastic will bow over time, making your house less appealing to bats.

Next you'll need to attach your sides; I made mistakes on both bat boxes that I built in that I didn't leave enough space for my outer roof and mounting holes on the first one. I'll still be able to hang it with L-brackets, but leaving space above the side beams would have been better.

Glue your side pieces to your backing leaving a 4 – 5″ gap from the bottom and a 3 – 4″ gap from the top (adjust accordingly to fit). Screw into place, from the back, with your 1 1/2″ galvanized screws.

Next glue down your inner roof piece between the sides and screw into place (from the back).

Your box should look approximately like this:
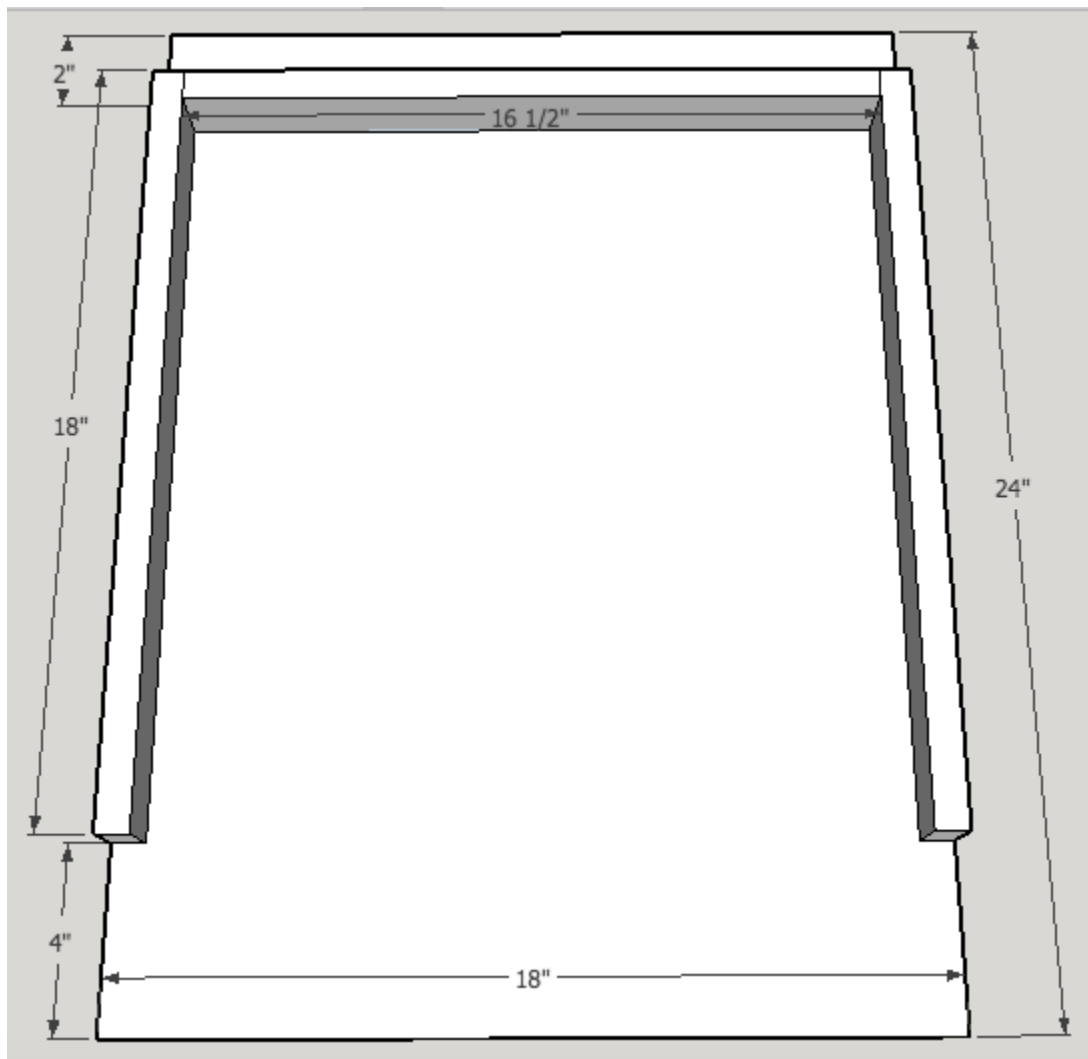
From what I've read, bats require a lot of heat – and it was recommended that bat boxes be sealed with caulking to keep the heat in and the weather out. I found the caulking to have a really strong smell and I questioned whether they'd roost here or not, but after checking several sites, they all say the same thing – seal it tightly.

Before attaching your top plates, run another strip of caulking along the side and inner roof pieces and press tightly. Screw into place using 1 1/2″ galvanized screws while the caulking is still wet (it will give it a better seal). Line your front upper along the inner roof piece and screw down from the front. Before attaching your front lower piece, leave an opening between the boards that is 1/4″ to 1/2″ for ventilation.
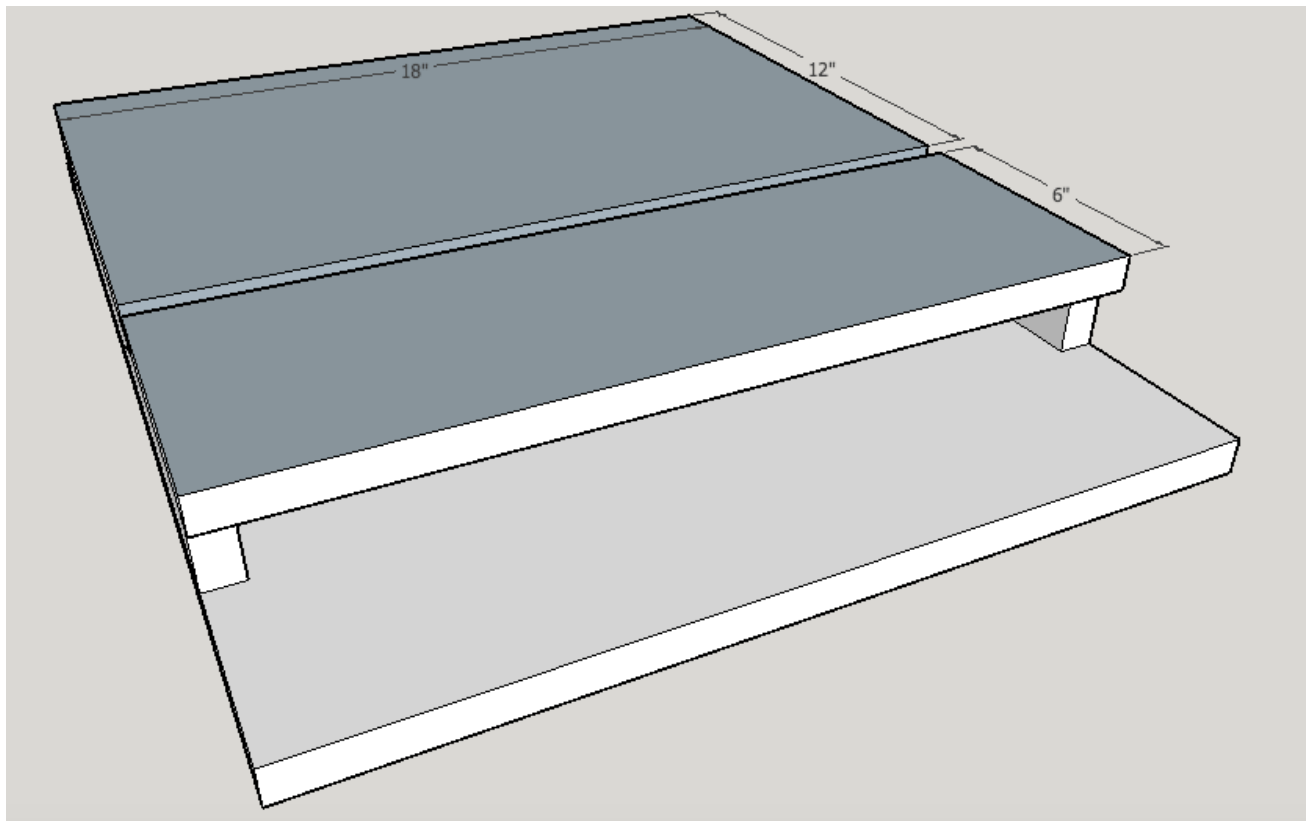
This will give you a small overhang at the bottom of your box. Here you'll attach your protective ledge. It's just a little extra protection from predators.
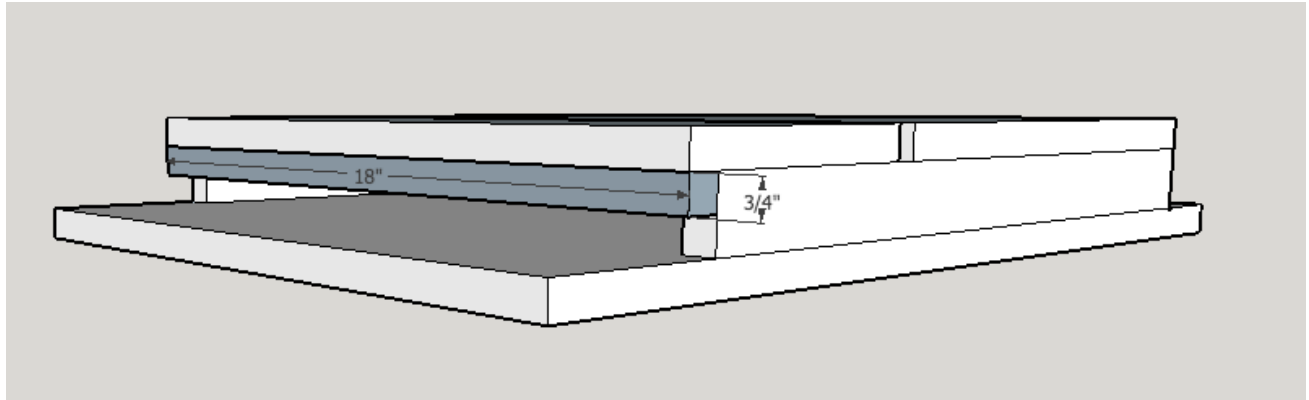
You can nail or screw this into place. Don't worry about caulking this section.

Finally, line up your outer roof piece so that the 30 degree angle is flush with your backing and there is an overhang on the front of your box (mistake number two – my roof wasn't wide enough so I had to add another row of caulking to seal the weather out).

I purchased a new-to-me scroll saw earlier this week and was itching to try it out and what better beginner project than a simple bat.

If I were to make a third bat box, I'd correct my other two mistakes AND paint the entire box before adhering the decorative batman but I'm a "learned the hard way" kind of gal, so painting around the bat was the route I was destined to take.

You could leave your bat box plain – with just an outdoor sealer/varnish to protect it – but it is highly recommended that you paint your box to help attract sunlight and therefore heat.

For my area, black was the recommended colour. One coat of outdoor paint and a coat of triple-thick outdoor varnish and my build your own bat box / DIY bat box is done!

Your bat box will need to be between 15 and 20 feet off of the ground in a cleared area – they need to have a clear path to take off from and to land, so a tree'd space won't find much success.

Your bat box will need about 7 hours of morning sun in order for them to want to move in. They are mammals and like to be toasty warm after a long night's work (don't we all?).

Mother bats tend to look for roosts in April (depending on your location) so putting up your bat box in the Fall will give you a better chance of it being used come Spring.

My thoughts are 1. Who wants to be out in freezing cold April to put one of these suckers up. 2. Putting it up now will give it time to weather and get rid of the strong scents of caulking and paint – but that's just my two cents.