

The Pilot's Raised Garden Bed

Disclaimer: I'm in no way a qualified wood builder person. My carpentry skills are akin to that of a blind dog...who's been drinking. Proceed at your own risk, use protective equipment, and always have Bob Vila or another professional present. I assume no responsibility for you accidentally smashing your finger with a hammer in a cartoon-like manner or low Instagram likes. Have fun!

This plan builds a fairly large garden box (3 ft x 5 ft x 2 ft), but it's easy to reduce the height or length by modifying the ratios below. The top (or lid) is completely optional. We use it to keep the birds out and reduce the intense, direct sunlight in the summer. The automatic irrigation is also completely optional. I did that more out of fun and personal curiosity.

Materials:

Wood: I used cheap Whitewood because, honestly, I didn't want to mess this up with more expensive lumber. The planks may be sold in different lengths than what I show below, so I had them cut to match my specifications. For example, I bought 6 ft, 8 ft, and 10 ft boards and had Lowes cut them in half (for free) to get the dimensions below. I also did some of my own cutting with a circular saw that I borrowed. Finally, I'm sure you could use 1-inch thick pieces, but the pieces I bought were thinner.

Lower Box

Wood Planks:

.75" x 6" x 5' (6)

.75" x 6" x 3' (4)

.75" x 6" x 4' (2)

.75" x 6" x 2' (2)

2" x 2" x 2' (4)

Large L-brackets:

1" x 8" (total length) (6)

Weed Guard (liner):

DeWitt or Sta-Green (Two 5' x 9' strips)

Thumbtacks:

Generic (approx. 20)

Screws:

Hillman Fas-n-Tite Exterior Wood Screws 8 x 2" (58)

Hillman Fas-n-Tite Exterior Wood Screws 8 x 1 1/4" (16)

Weather Max Stainless Steel Flat Phillips Sheet Metal 10 x 3/4" (24)

Drill Bit (plus the drill itself):

1/8"



Soil:

I used an organic, raised-bed gardening soil. There are plenty to choose from depending on what you want to grow. A garden bed this size would require 30 cubic feet to completely fill (I only used 25 cubic feet which left 4 inches of space from the top because I ran out of room in my car).

Stain/protective coating:

Australian Timber Oil – Cabot (Honey Teak...or choose whatever color you like)

Optional Top Lid

Wood Planks:

.75" x 2" x 5' (3)

.75" x 2" x 3' (4)

.75" x 2" x 2' (4)

.75" x 4" x 5' (1)

Small L-bracket:

1" x 3" total length (8)

Hinges:

Generic (2)

Screws:

Hillman Fas-n-Tite Exterior Wood Screws 8 x 1 1/4" (22)

Handle:

Generic, pick your style (1)

Screen:

I used Stain-Gobnain ADFORS Clear Advantage (2 5' x 7' ft strips)

Staples (plus staple gun):

Generic Wood staples (as required)

Assembly Instructions:

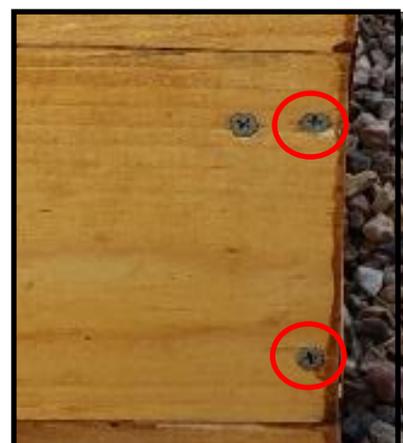
Drilling prior to driving the screws in is fairly critical to avoid splitting the wood. I lined up a 3 ft plank with a 5 ft plank at a 90 degree angle to create a giant "L" with the boards resting on the ground. I leaned them against the legs of a square patio table to prevent them from falling over while I drilled. I'm sure there's a more effective technique or tool for keeping them from falling over while you drill the holes for the screws, but this worked for me. I used the 1/8th bit to drill my holes 1" from the bottom and top and just over a quarter-inch (5/16th) in from the edge.



Small L-bracket



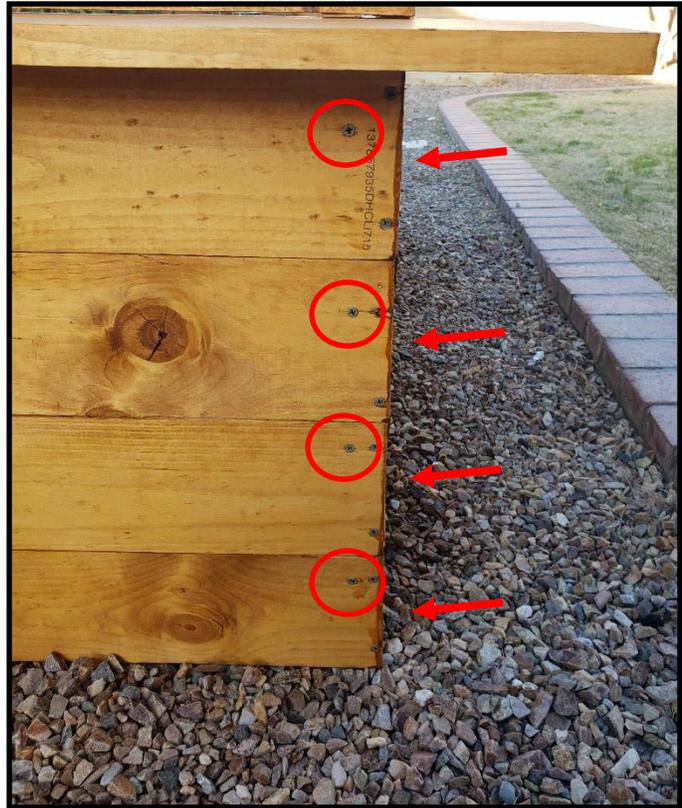
Handle



3 ft & 5 ft connection points

Repeat this process on the adjacent side to create a complete square of wood planks. I did this whole process 4 times to create the 2 ft high stack of squares.

To connect the stack together, I placed the 2" x 2" x 2' piece of lumber on the inside of each of the 4 corners. I then drilled/screwed it to the planks using the 8 x 2" screws (1 screw on each plank on both side).



2" x 2" x 2' connection points

I also built a small shelf using 2 of the 5 ft planks and 2 of the 4 ft planks. I secured the shelf by using 3 of the 8 x 2" screws on the 5 ft piece and 2 on the 4 ft piece. I then used the Large L-brackets to stabilize it. 2 L-brackets under each of the 5 ft planks and 1 L-bracket under each of the 4 ft planks. I secured it using the 10 x 3/4" screws so the sharp end of the screw wouldn't poke out of the stop of shelf.



Drill locations for shelf-to-box connection for 5 ft plank



Large L-bracket under shelf

Finally, I added additional support to the inside, along the 5 ft planks using the .75" x 6" x 2' boards. I simply stood them up vertically inside the box, in the middle, and screwed them in place using the 8 x 1 1/4" screws. You can further support the overall structure by attaching more L-brackets to the outside of the box on the corners of each 3 ft and 5 ft plank connection point. I gambled by not doing this, and it's been okay, so far.



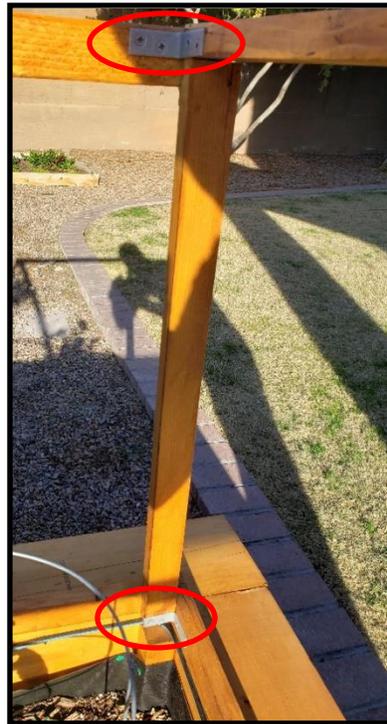
Screws securing 6" x 2'

You can go on to add the lid as described below, or stop here and prep the garden for soil. You'll want to stain the inside and outside to protect the wood from watering and the elements. Next, take the weed guard and line the bottom and sides. The liner will help water to drain out while preventing the wet dirt from leaking out of the sides. I held it in place with thumbtacks, then filled it with soil!

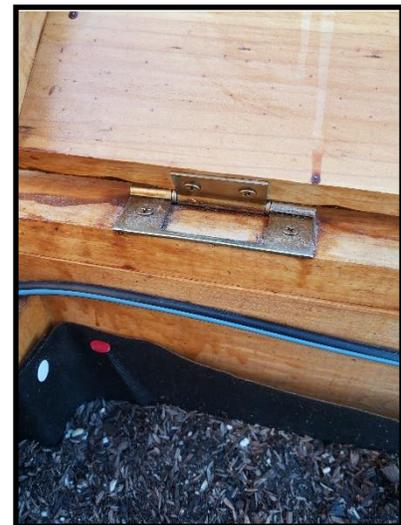
You're pretty much good to go at this point, but if you'd like to add the lid, keep reading. **START THIS PROCESS PRIOR TO STAINING AND FILLING WITH SOIL.** The lid is made using the small wood blanks in the same dimension of the garden box. It's also 3 ft x 5 ft x 2 ft. For the far, lower 5 ft plank, I used the .75" x 4" x 5 board because that's where I attached the 2 hinges to the rear shelf. Note: you can see part of the irrigation system I installed in these pics. That's still a work in progress, but I'll share it once I get the kinks worked out.



Lid connection points



L-bracket attachment points



Left hinge

I used the 8 x 1 ¼" screws to connect the pieces together. There's probably an easier way to connect the joints, but I just attached them like the picture above which seems to work fine. Again, careful not to split the wood pieces (use a bigger drill bit, if necessary), and avoid the running into screws already drilled in. Finally, I bought a couple small lengths of chains that I was going to use to keep the lid from falling too far back, but right now, it rests on our back wall when it's fully open. I initially attached the screen using thumbtacks to align it in place, but attached it permanently with staples.



Garden box with partial screen (prior to irrigation installation)

That's it. I hope you have fun with the project, and enjoy the fruits of your labor!