

Trash Stand - Open Source Build Plans

How to make a simple trash stand to allow people in the public to help clean up areas.

- Build Plans
 - Trash Stand V0.1
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 - What you need to make the trash stand

Build Plans

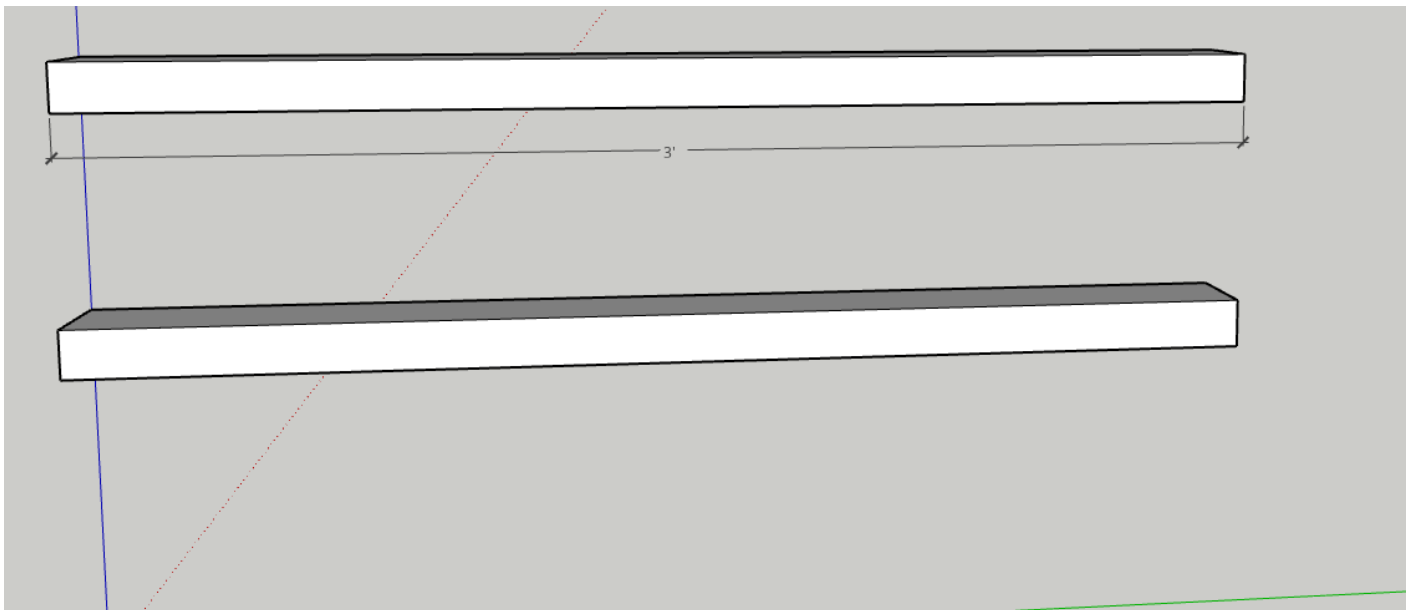
Trash Stand V0.1

This guide is to make a very simple trash picking stand. This is meant to be out in the public, so anyone can help pick up trash. This is great for parks or community spaces that often get trash blown in, or litter ends up in communal areas. The build is very straightforward and simple.

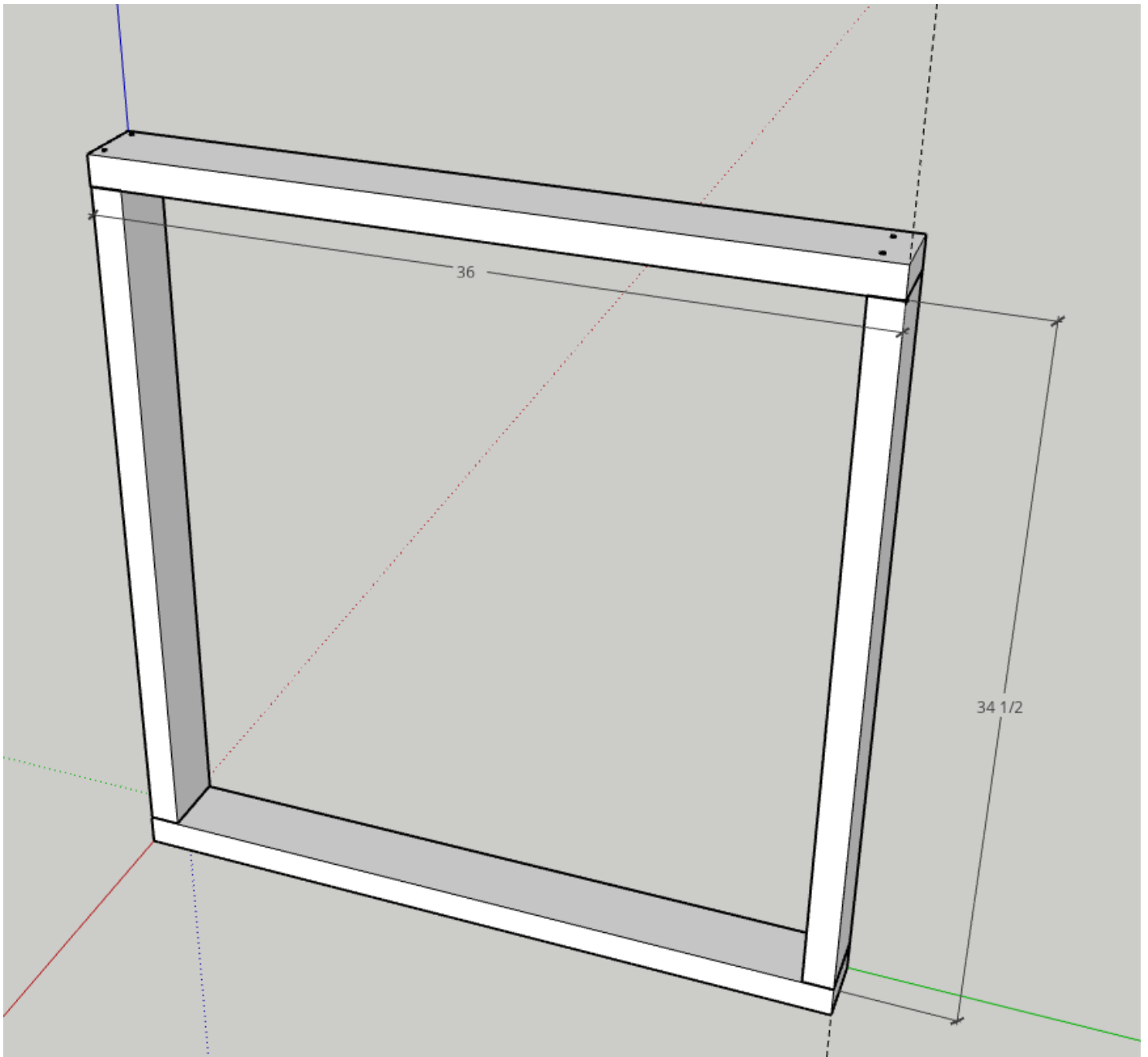
Building

See the [materials](#) section for more details.

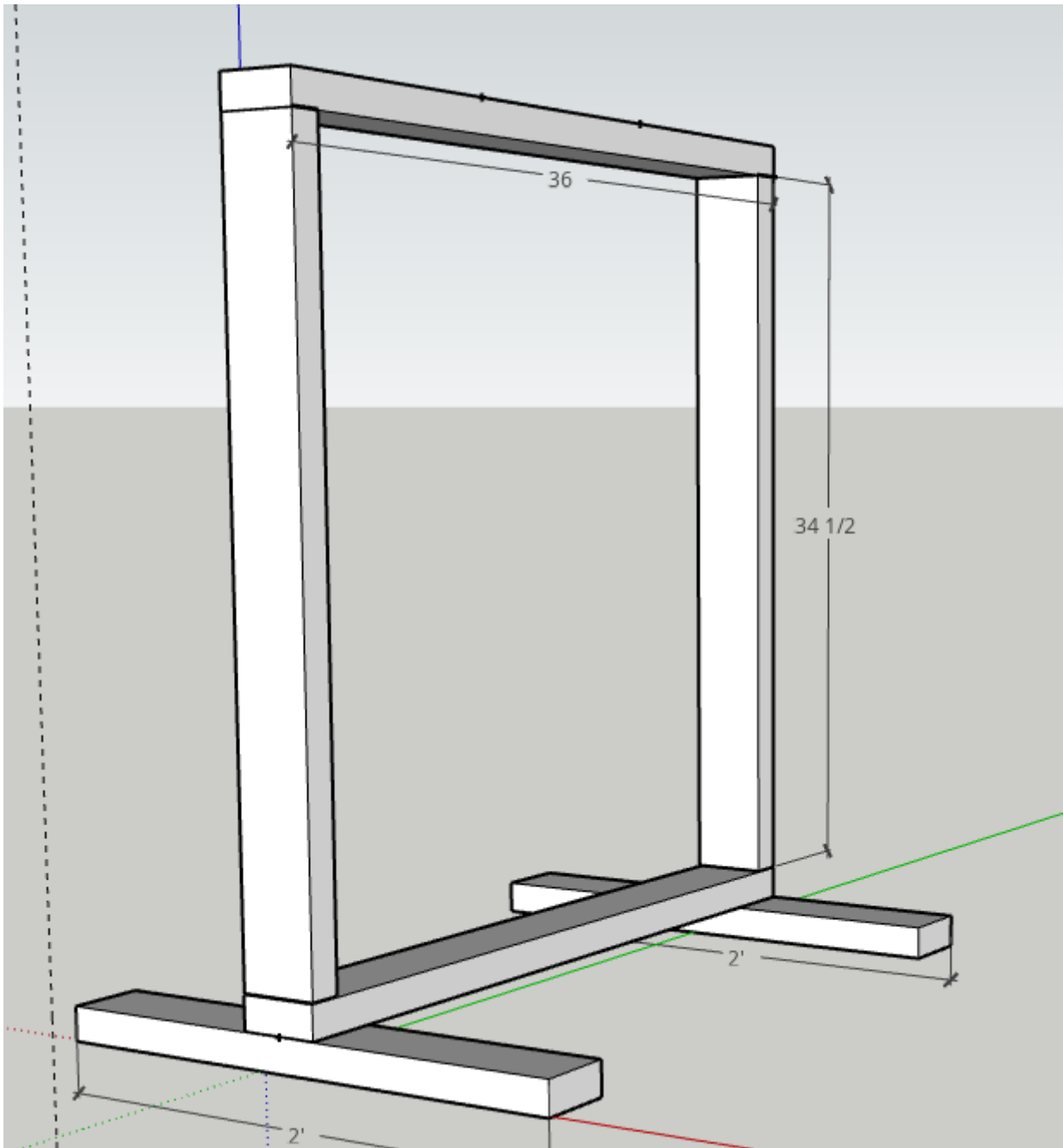
First, start by making the top and bottom of the stand by cutting your wood to 3 feet, or 36 inches. This length will allow for two buckets to rest in the stand. Feel free to expand these dimensions if your build requires more buckets and pickers.



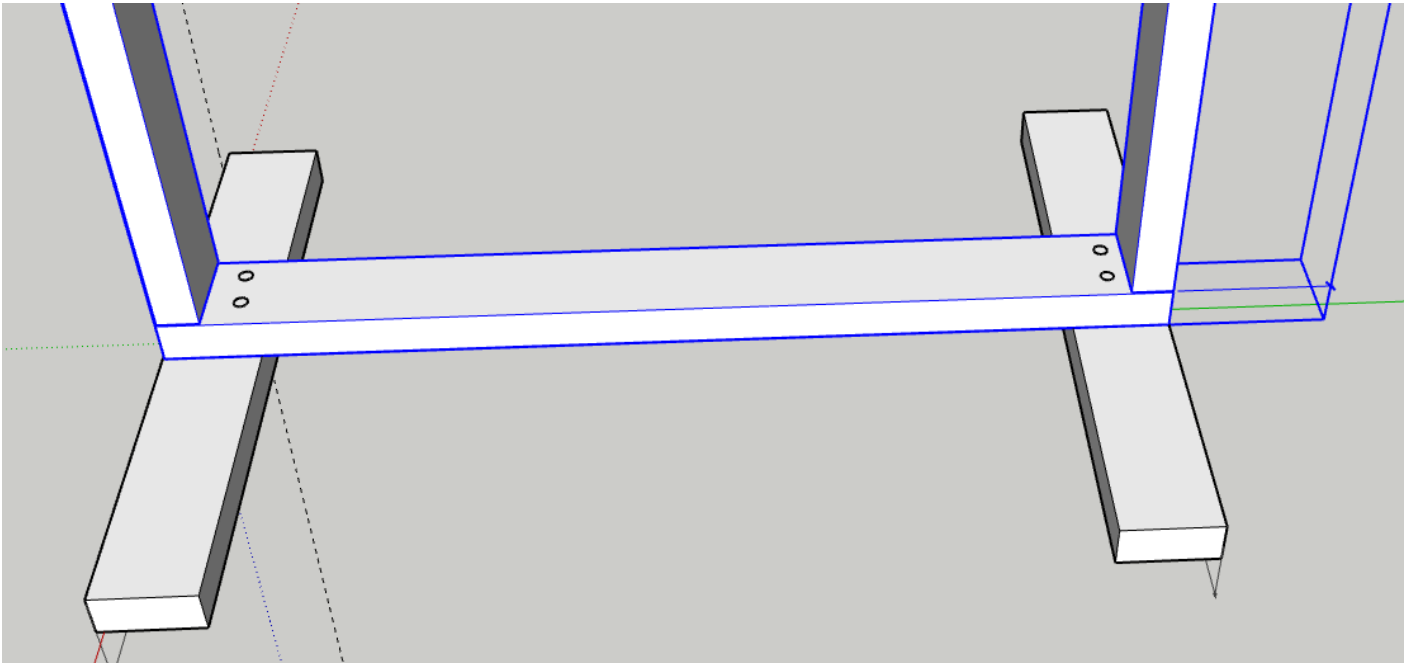
Next cut the pieces for the sides. 34 ¹/₂ Inches is a good height to allow for room to slide the buckets under the grabbers.



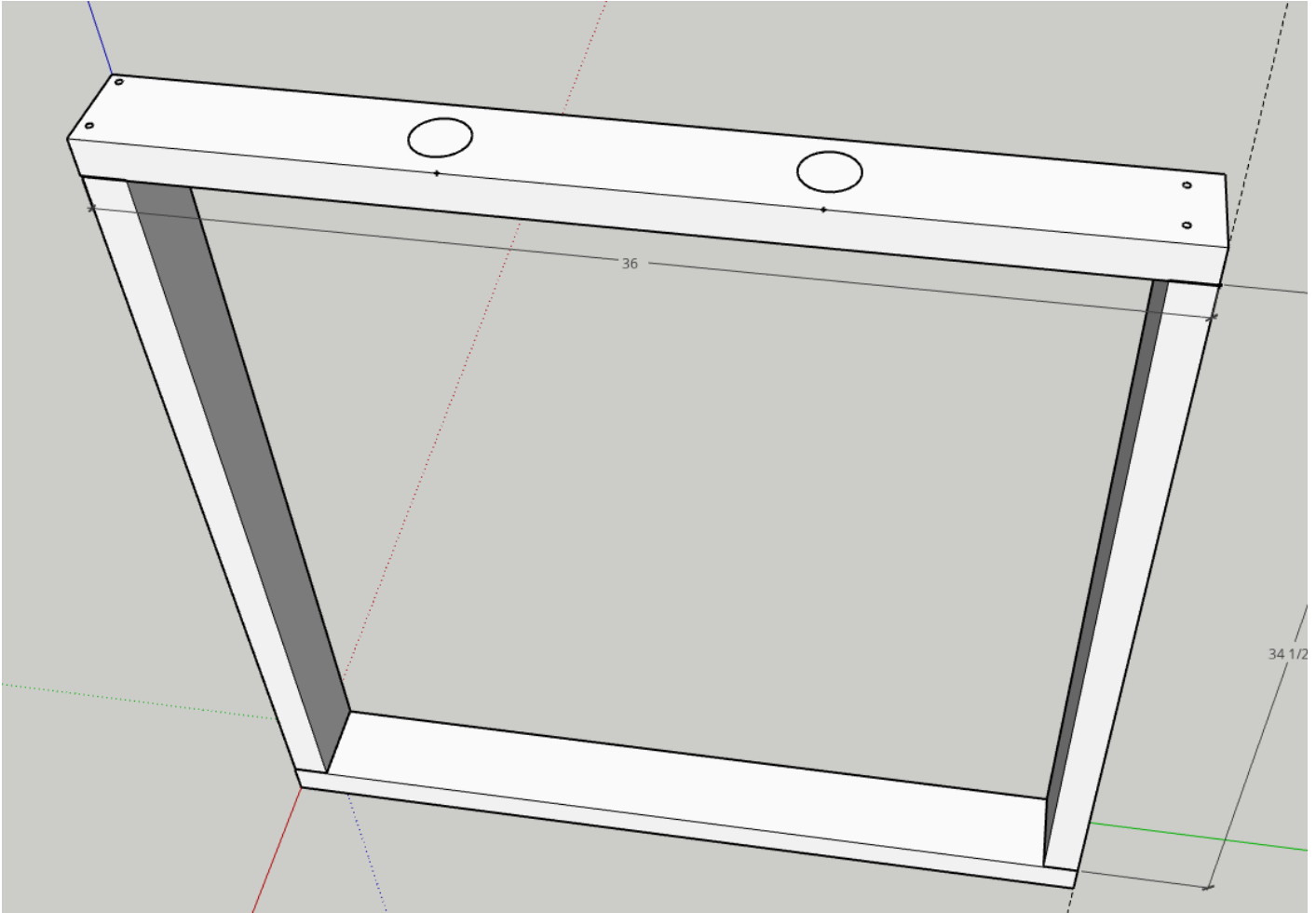
Start assembling the frame together in the orientation above. There are small circles to indicate where to add screws. Two screws are good enough to hold these together pretty well. Be sure that the sides and edges line up when screwing them together. A speed square can help, along with clamps or a buddy. Add two screws to each joint, ensuring your side pieces are wedged between the top and bottom, and not attached to the side.



Next, cut two pieces for the legs at 24 inches long. Center the frame on the legs, you can mark a midpoint of 12 inches and align the frame with that.

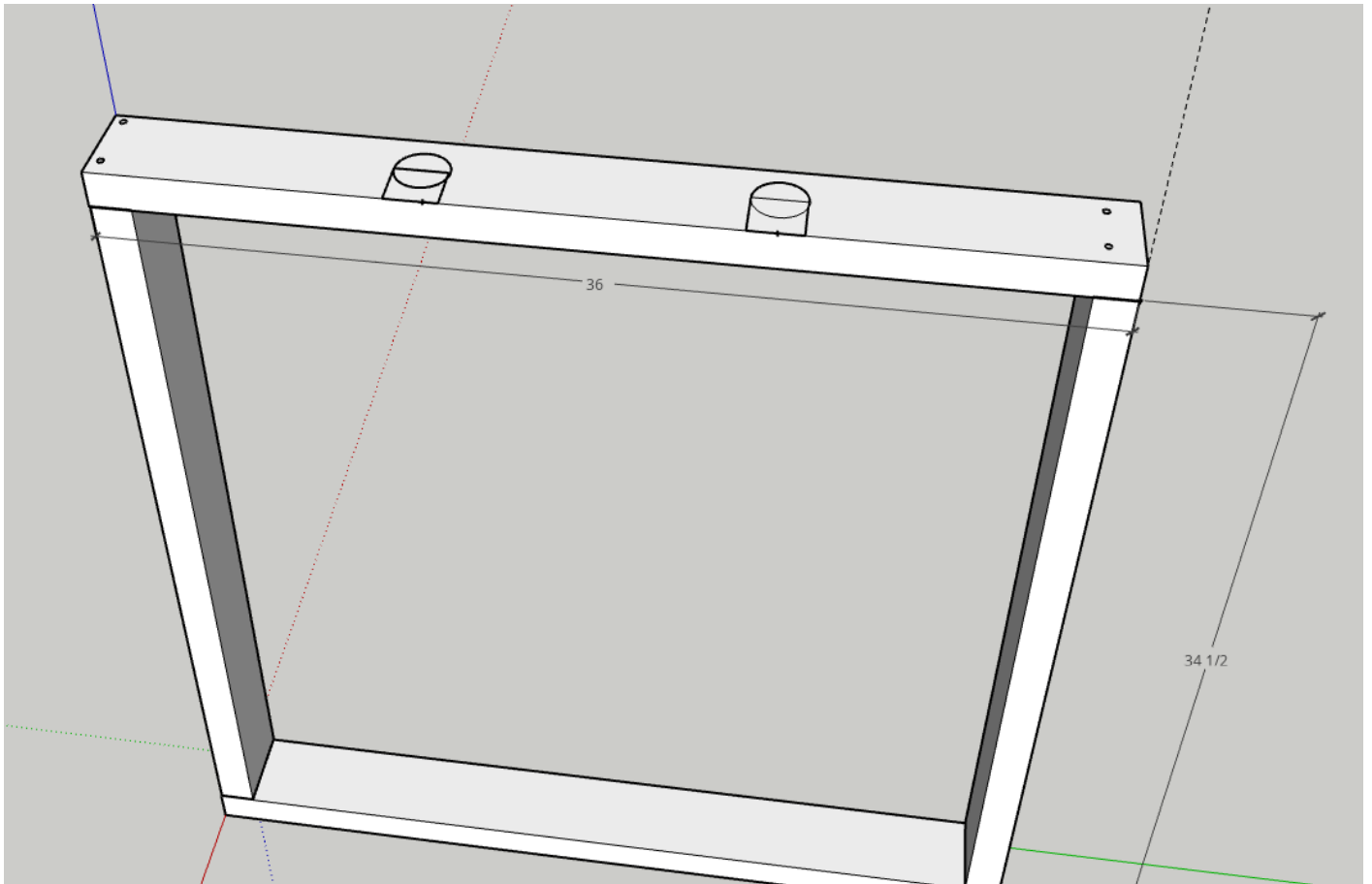


Screw the base to the legs by using two screws on each side. If you want a stand that folds flat for transport, you can use one screw as a pivot and move them into place. But it's easier to just screw two screws in and call it a day.

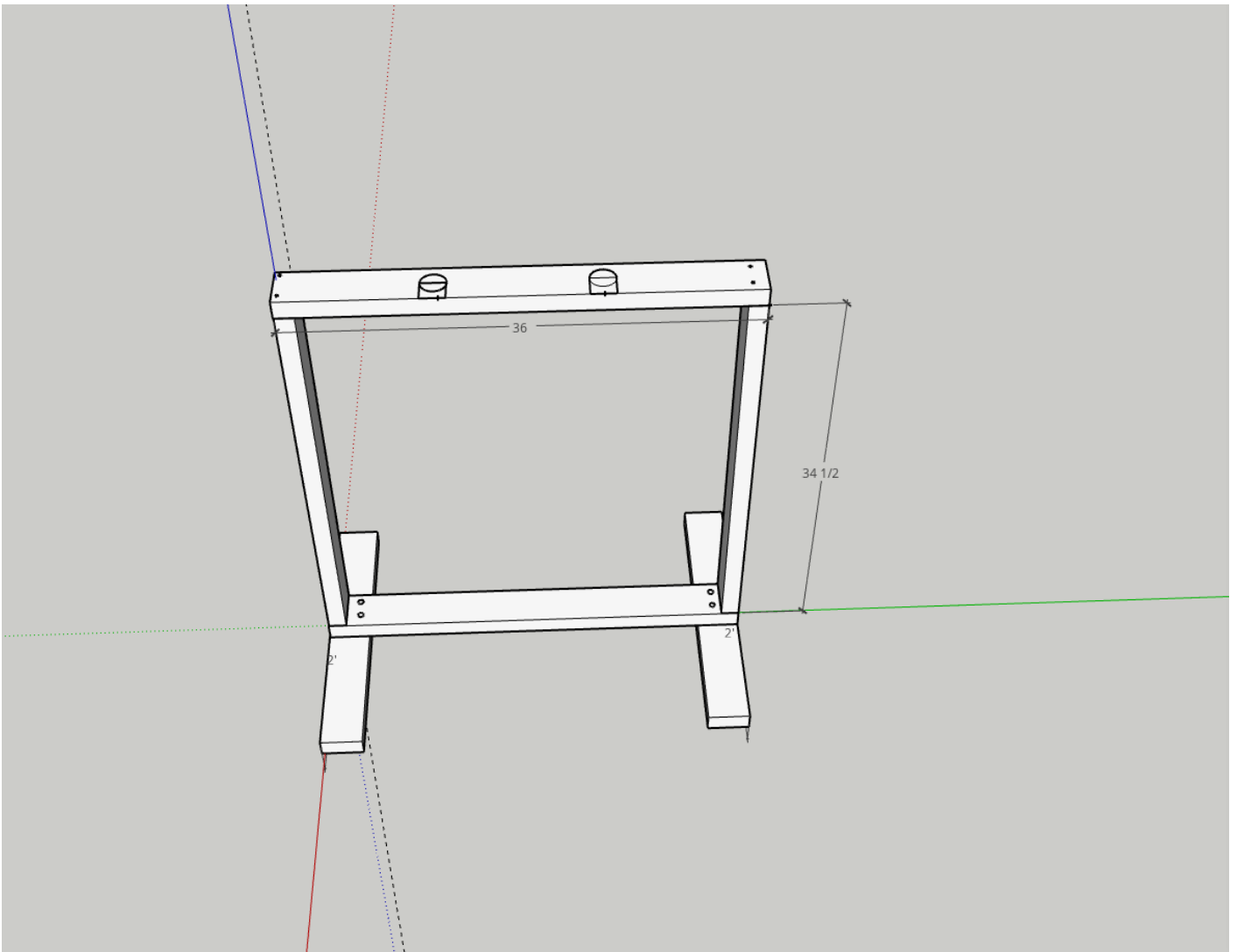


With a stable base, mark the location of the holes to be drilled. Marks at 12 and 24 inches will make them even on the frame. Then use a 1^{1/2} or 1^{1/4} drill pit, spade, forester bit, or hole saw bit

to drill a hole at 12 and 24 inches.



Then mark a straight line from the edges of those freshly cut holes to the end of the frame. These parts can be cut out with a saw, a jigsaw works best, but any saw that you can safely use will work. A plunge cutting tool might also help.



You can now use a stain and a weatherproofing sealant like polyurethane or desk sealant. As long as the sealant is rated for outdoor use. You don't have to treat the wood but for longevity, it is best. From here it is recommended to add your latching bolts (for more info check out the [materials section](#)) where the grabbers slide out to keep them from blowing out of their slots in high winds. You can also use a super small bungee cord or some rope or something but the metal bolt latches work best and are super cheap.

The 3D model (.STL) can be downloaded [here](#)

Videos of the trash stand!

The first intro video

Some more updates

Material Requirements

What you need to make the trash stand

Raw materials needed:

- Three 2x4 pieces of lumber. 8 feet is perfect. Pressure-treated is better but use whatever you can find.
- 3 inch construction screws (star or T-25 drive screws preferred)
- Two Hook and Eyes (or however many you need if you have more than two pickers)
- Trash pickers, or any grabby thingy.
- 5 gallon buckets

Tools needed:

- Saw
- Speed square
- Tape measure
- Screwdriver or impact driver

Why T25 or star screws?

They are way easier to work with and don't strip unlike the plus or minus head screws. They drive in really quickly and are overall better. Get ones rated for outdoors so they don't rust.

What if I don't have tools?

Big box stores can cut your wood down to the sizes you need. Before grabbing your wood, check to make sure the saw is working. They are usually at the back of the store. Call someone over and show them how many pieces you need. This is good if you don't have a saw. They might make you pay a couple of cents to make cuts. Usually, they just let you walk out for free, just be nice to them. You might have to flag down a cashier to call on the radio for someone to come to the saw area.

You do need a saw or something to cut the circular area to allow your grabbers to slide in and out.

You don't need a power saw, but it helps. A jig saw is a perfect thing for this. If you don't want to keep the tools you can buy it and return it. The best place for cheap tools is Harbor Freight if you aren't planning on using them for actual construction. Same thing with power drills / impact drivers.

They will make life alot easier and can usually be returned or bought for super cheap second-hand on Facebook marketplace from someone's grandpa.