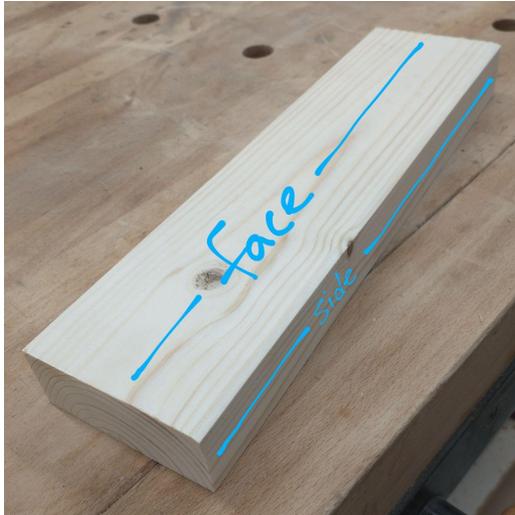


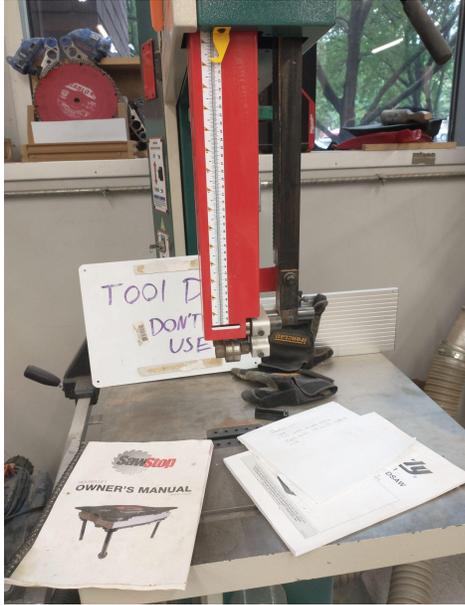
1. Get two blocks of wood, one with the length that you want the width of your shelves to be, and the other with the length that you want the height of your shelf.
 - I used two pieces that were of similar length, but depending on the relative shape you want, use different length wood.



2. Take one block of wood and use the jointer to joint a face and then a side of the block to make them perpendicular to each other.
 - If you don't already know how to use the Wood Room machines in these instructions, you will need to get trained on them, or ask a PI for help (they will be wearing a neon yellow, orange, or blue armband).



3. Use the planer to get the opposite face of the block to be parallel. Make sure that your wood meets the requirements for the planer (listed on top of the planer) before using it.
 - If your wood doesn't meet the requirements, you can use the drum sander, orbital/belt sander, or a hand planer to try to get it parallel and flat. If being parallel isn't a big concern then you can just use the jointer to get a flat side.
4. You can use the table saw to cut the other side of the block to be flat and parallel
 - I didn't, because I was planning to cut the boards thin enough that it wouldn't really matter to me.



5. Depending on the size of your block, use the bandsaw to cut the block in half (or into thirds/quarters) lengthwise so that you have 2 (or more) thinner planks that are otherwise the same size as the block.
 - You can look up resawing if you're confused on what I mean.
 - When I was making this, the bandsaw was not working, so I used the table saw to resaw the blocks. Ask a PI for help with this (and don't try to cut it in half all at once, you will have to alternate cuts on both sides to slowly saw it in half).



6. Checking the requirements for the planer again (mostly checking that it's not thinner than $\frac{1}{4}$ "), plane the boards on the side you just cut to make both sides flat.

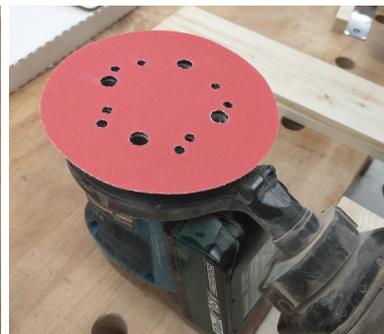


7. Repeat steps 2-6 with the other block, so that you have 4 (or more) planks.

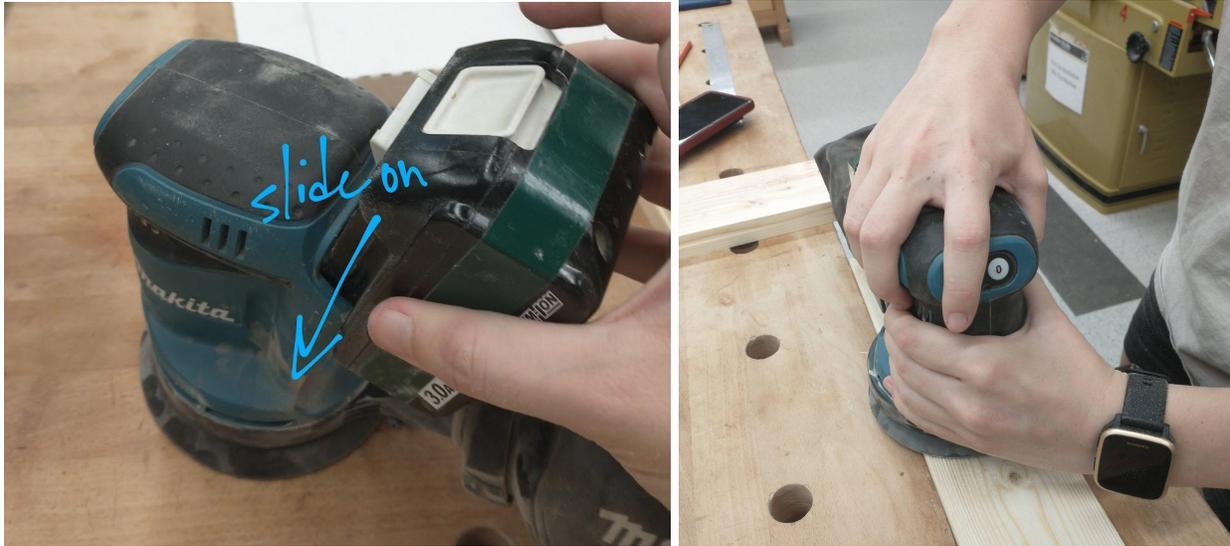


8. Secure the board so it doesn't move and make sure whatever you're securing it with won't run into the sander while you're using it.

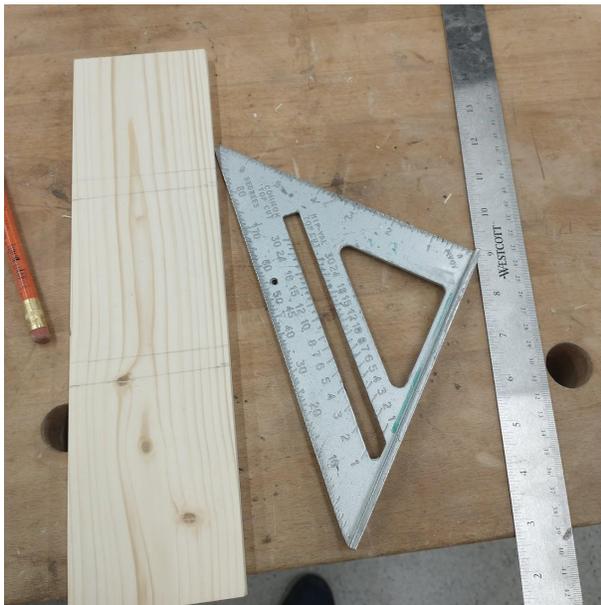
- I would also put supports under so that a side doesn't shift down when you are sanding.



9. Get an orbital sander from the cabinet, a battery from the shelf behind the jointer, and the orbital sander discs from the drawer.
 - o Attach the orbital sanding disc to the sander like Velcro, but make sure the holes line up.



10. Attach the battery and sand both sides of the boards.
 - Start with a lower grit disc, and increase to a higher one for a smoother finish. I used 120 grit, 150 grit, then 320 grit.
 - Hold the sander securely as shown above, and use the 3-2-1 button to start/adjust the speed and 0 button to stop.
11. (optional) You can use the laser cutters to engrave designs onto the wood if you want.



12. On the boards you are planning to use as the sides of the shelf, measure out where you want the shelves to be.
 - I did 4.5" and 9" from the bottom, but this obviously depends on the wood you have and your preference.



13. Get epoxy (basically strong glue for wood) and use the glue to attach the boards for the shelves.

- You don't need a lot of glue to make it work.
- Depending on the amount of stuff you plan to put on the shelf, you may want to use the trim/table router to make "slots" that the shelves can fit into or the nail gun to make the shelves more secure.



14. While letting it dry for a couple of minutes, measure the same distances on the other side of the shelf. Put glue on the end of the shelves and attach the other side. Wait for it to dry and turn it upright.

15. (optional) You can use the Paint Booth (ask a PI to show you where it is) to spray paint your shelf for color.