

# Garage/Shop Storage \& Workbench 

-full build video on the Jonny Builds YouTube Channel
Find me on Instagram @jonnybuilds for any questions about these plans.

## Materials List:

22) $2 \times 4$ 's
23) 4'x8' sheets of plywood (I used (3) $3 / 4$ " sheets and (1) $1 / 2$ " sheet of Radiata Pine plywood)
24) 2'x4' $1 / 8$ " hardboard project panel

1 Box Spax 2 1/2" \#10 screws link: homedepot.sjv.io/4Qa50
1 Box Spax 1 1/2" \#10 screws link: homedepot.sjv.io/ydZgN
Wall Control Panels: https://amzn.to/2QCgQpp
Husky Tool Cabinet: https://homedepot.sjv.io/eVnRX
LED's: https://amzn.to/2QDShs8

## Cut List:

## 2x4's:

8 - 8 foot long $2 x 4$ 's
6 - 52"
12-313/4"
21-18"-21
$1-44 "$
Plywood:

```
3 - 21"x 96"
3-21"x19.5"
2 - 24" x 67"
2 - 21 3/4" x 36"
1 - 36" x 48 1/2"
```




## Steps:

1. Cutting the $2 \times 4$ 's (I used a miter saw and a stop block to make repeatable, accurate cuts. If you don't have a miter saw you can use a circular saw. )

- Cut $62 \times 4$ 's to 52 ". Cut the offcuts of those pieces into 6 pieces at 31 3/4".
- Cut 6 more pieces at $313 / 4$ "
- Cut 21 pieces to 18 ".

2. Assemble the frames.

- Starting with the 6 frames needed for the end cap assemblies, attach two 31 3/4" long boards to two 18 " long boards to create a frame. The ends of the $313 / 4$ " boards will overlap the end grain of the 18" boards.
- Use a clamp to hold the boards in place.
- Check for square and attach with 2) 2 1/2" screws on each end.

- Build the 3 larger frames in the same fashion. Attach the 52" boards to the 18" board so he ends of the 52 " boards will overlap the end grain of the 18" boards.
- Check for square and attach with 2) 2 1/2" screws on each end.
- Add an 18" board to the middle of the frame for support attaching with 2) 2 1/2" screws.

3. Adding the uprights


- Place two smalls frames on each end of a large frame on the floor. These get assembled upside down initially.
- Attach an 8 foot $2 \times 4$ upright to the far ends of the small frames.
- Make sure to push the frames all the way down to the floor and check for square with a speed square before attaching with (3) 2 1/2" screws.

- Repeat for remaining (7) $2 \times 4$ uprights.
- The uprights that join the center frame to the end frames get attached so the $2 \times 4$ is centered where those two frames meet.
- Only attach to the center frame for now so you can flip each assembly over individually.


4. Flip over \& connect

- The whole structure is going to be extremely wobbly at this point. As each new section is added the project gains rigidity, and bit the end this piece is rock solid.
- Flip the frame/upright assemblies over and stand them up.
- Use clamps to hold the frames together and in alignment.
- Make sure frames are coplanar and connect with (2) 2 1/2" screws where the frames mate along the 18 inch board.


## 5. Attach lower frames

- Measure up from the base of each $2 \times 4$ upright to $281 / 4$ ".
- Use a square to mark a line and clamp on a $2 x 4$ scrap to the upright so the top of the $2 \times 4$ scrap is even with the line you just marked.
- The blocks you just added give a place for the frames to rest on while you attach them.
- Place a small frame on one end, and the large frame in the center resting on the scrap blocks.
- The small frame should be even with the outside edge of the $2 x 4$ uprights on the ends. The small frame and center large frame should meet so the join at the center of the middle uprights.
- Check the upright for square against the top frames, and then attach to the lower frames with (3) 2 1/2" screws.
- Attach the middle upright to the small frame in the same fashion. It should stop at the midpoint of the middle uprights.
- Butt the large frame against the small frame and attach the two frames with $21 / 2$ " screws through the 18 inch boards.
- The back side of the frames gets screwed to the uprights through the inside of the frame at a slight angle to pull the two sides of the frames together.
- Repeat these steps to add the 2nd lower small frame to the opposite side.


6. Attach upper frames

- Measure up 36 inches from the top of the lower frames.
- Add scrap blocks to rest the frames on.
- Install upper frames exactly like the lower frames.


## 7. Cut up plywood panels

- Using the layout in this image cut out all the needed plywood panels.

- Cut using a circular saw and a straight edge.

8. Attach the plywood panels to the main assembly

- Attach the shelf panels with $11 / 4$ " screws

- Attach the end panels with $11 / 4$ " screws
- Add a 44 " long $2 \times 4$ to the center of the workbench area.
- This gives the back panel a place to connect.
- Attach the workbench back panel to the center of the assembly centered on the center $2 x 4$ uprights.
- Close out the center workbench area by attaching the two remaining panels to the inside edge of the center uprights. The back ends get toe-nailed (screwed) on a diagonal into the panel at the back of the workbench.


9. Finishing touches.

- add Wall Control panels if using.
- Attach LED's
- Add Husky cabinets if using
- Stage tools.

If you have any questions at all please reach out. The best way to contact me is on Instagram @jonnybuilds.

