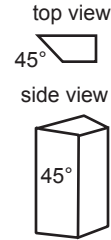


R2-D2 Shelf Plans by JenuineMom.com

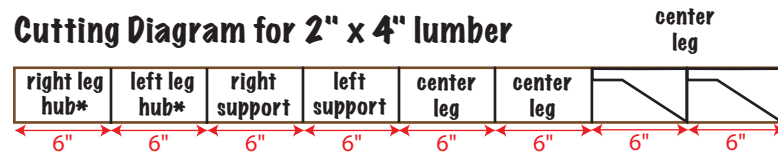
Materials:

- 1 - 4' x 8' sheet of 1/2" thick plywood (we used hardwood plywood)
- 1 - 2" x 4" x 4' long lumber
- 3 - 2" wide round washers or rubber discs (optional)
- Wood screws (1" long)
- 4 - 2.5" long bolts with two matching wingnuts and two nuts
- Washers (about a dozen) to fit the bolts
- Wood glue, paper, pencil, string
- Paint (we used white, silver metallic, blue, and black)
- 1- 6' LED light rope (we used the Continu-us 72in Multi-Color LED Light Strip Starter Kit)

* leg hubs need a 45° cut on one end, which will allow you to attach the top of the each leg to each back.

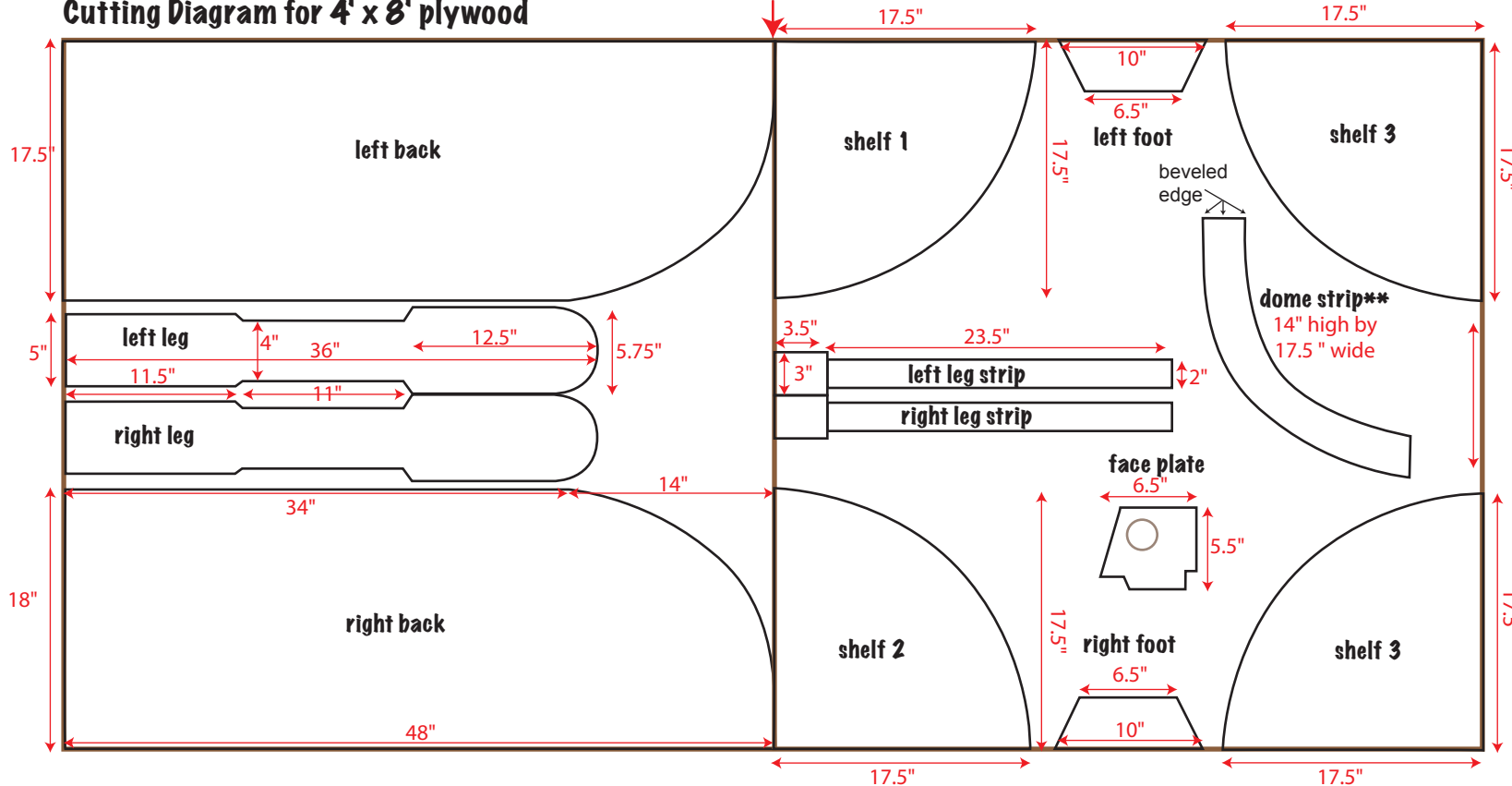


Cutting Diagram for 2" x 4" lumber

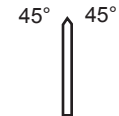


cut your 4' x 8' sheet of 1/2" thick plywood in half

Cutting Diagram for 4' x 8' plywood



** the dome strip needs to be beveled on end indicated in the diagram so it can fit neatly into the corner.



R2-D2 Shelf Tools & Directions

Tools Used:

Jigsaw
Table saw (but you could use a handheld jigsaw instead)
power drill
paintbrush, sandpaper (or sander)

Directions:

1. Cut your sheet of plywood in half. Tip: You can usually get your home improvement store, such as Lowe's, to do this for you free.

2. Cut the left back and right back pieces first. Put them together, at a 90° angle perpendicular to each other, with the left back overlapping the right back so that the two back corners meet together neatly. Attach with 1" wood screws.

3. Set your assembled back unit on a piece of paper on the ground. Mark the inside edges of the back unit. Now tie string to your pencil, and secure the edge under the center point of your back unit so that your pencil is in line with either edge of the unit. Now draw a curve on the paper by going from one edge of the back unit to the other. This gives you a perfect pattern for your shelves. It will likely be the same or very close to the cutting diagram, but if you do it this way, it will be exact.

4. Using the shelf pattern, cut four shelves. We suggest you cut them from the corners of your plywood (as shown on the cutting diagram) to ensure you have straight corner edges.

5. Attach the four shelves to your back unit. The bottom shelf is flush with the bottom edge of the back unit. The top shelf is 14" down from the top edge of the back unit. The other two shelves are centered in between, but you could certainly position them differently. Screw the shelves in from the back with 1" wood screws, being careful that the screws go neatly into the shelves.

6. Cut out the remaining items from the plywood—that is the left and right legs, left and right feet, left and right leg strips, dome strip, and faceplate. Note that you need to bevel one end of the dome strip at 45° angle.

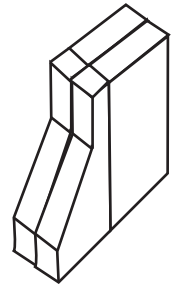
7. Attach the dome strip to the top shelf, positioning it to so that its back edge (the one you beveled) fits into the corner neatly. Attach with glue and screws.

8. Attach the faceplate to the dome strip with a couple of screws. Now glue a round rubber disc or washer centered where R2-D2's round eye usually goes.

9. Now cut out the eight 6" pieces from your 2" x 4" lumber. Note that the two leg hubs need to have a 45° edge on the long side.

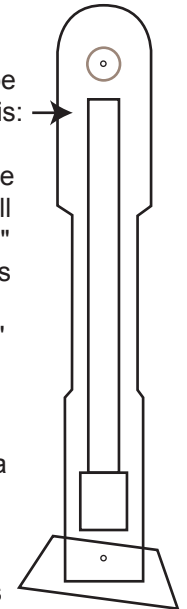
10. Attach the right and left leg supports under the outer corners of your unit by screwing down from the bottom shelf into the supports.

11. The center leg is made up of the two rectangular center legs, glued and drilled together, with the two angular cut legs glued on front, to form this:



12. Once you've assembled the center foot, screw it into place with two screws from the bottom shelf down into the foot.

13. Assemble your legs by placing one leg strip over one leg and glue them into place. Then attach the foot (which overhangs the edge of the leg) with a bolt and wingnut (so it can be adjusted later). Your assembled pieces look something like this:

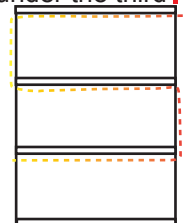


14. Now take your leg hubs and attach them to the sides of the unit, with the bevelled edge against the unit's back walls. You'll want the top of each hub to be about 37" from the floor and 2" from the front edges. The leg hubs allow you to attach the legs at the right angle. Make sure that the hubs are positioned so that the leg can be attached at an angle (and position the foot so it's flat on the floor).

15. Attach your legs at a slight angle to the leg hubs, making sure the foot can sit flat on the floor (you will need to angle it a bit—loosen the wingnut, position, and tighten). Use bolts and put five washers in between the hub and the leg.

16. Now you sand, then paint! We painted the entire unit, legs and all, white first. Then we spray-painted the top with metallic silver paint. Then we painted in the blue detailing. Use the photo on the first page, or a photo of R2-D2 as a guide. We sprayed it with a clear gloss protective coat when finished.

17. The LED light rope was attached by drilling holes in the sides of the unit, just under the bottom edge of the shelves. The hole should be big enough to allow your LED light rope to pass through. You'll need six holes—two just under the top shelf, two under the second shelf, and two under the third shelf. Now thread the lights through the holes like this:



Note that we put the holes back from the edge about 7" so you wouldn't see them and also so our 6' of light would cover all three shelves. Our LED light rope had an antenna for the remote, and we attached the antenna to side of the unit where the red rectangle is located. If you have a remote, you could also attach it to R2-D2 (we put ours right under the faceplate).

R2-D2 Shelf Photos & Notes

Photos:

Here are some in-progress photos of the shelf as we made it:



The base unit



All assembled!



Preparing to paint the silver



Drilling holes for the LED lights

Notes:

You could use these plans to make just a curved corner shelf.

Our faceplate was made from some scrap wood rather than the plywood, so it'll look a bit different—but the dimensions are the same.

The round rubber discs or washers are used for the eye and the tops of the two legs—they are purely decorative.

Don't worry if this doesn't come out perfect—R2-D2 is a bit banged up and dirty anyway!

If you have questions or get stuck, e-mail jenniferlynangel@gmail.com

Have fun!