## **Raw Materials**

- 2 8' long 4x4 cut by Home Depot (Lowe's can not cut) to 32 inch length (Cedar or treated)
- 4 6' long 2x4 (Cedar or treated)
- 13 2' long 2x4 (Cedar or treated)
- 6 deck support concrete footing blocks
- 1 Drill bit for screws
- 1 Small box of 3" long deck screws
- 1 Small box of 2 ½" long deck screws
- 3 rain barrels (these are 220L)
- 1 6 feet of hose (connect rain barrels)
- 4 hose connections, female type with hose clamps
- 1 small container of detergent or hand soap

## **Tools**

Skill Saw (unless you pay Home Depot to cut all the wood)

( A hand saw will work for those who like the physical challenges.)

Power Drill (to reduce wrist fatigue from installing all the screws)

Screw driver for hose clamps

Carpenters square

Pencil for marking boards

Sledge hammer or fence post driver

One patient helper

Measure one 2x4 by 6 feet to locate the center

Using carpenter's square use 3 or 4 3" long deck screws to secure each of the three 4x4 legs to the 2x4, one on each end and one in the middle. See Figure 1. This creates the top rail of the rain barrel table frame.





Figure 1 Initial Frame

Figure 2 Securing screws on frame

Using a second 2x4 by 6 feet, secure the remaining three 4x4 legs, also with one on each end and one in the middle.

The long sides of the rain barrel table frame are now complete.

Stand the two long table frames up and fasten them on each end using a 2x4 by 2 feet. The patient helper is useful at this time. Use the carpenter square to keep everything square. Use 3 or 4 3" long deck screws for each end of each 2x4.

For added strength add a 2x4 by 6 feet long board to each of the long sides about halfway between the top rail and the bottom. Your structure should look like Figure 2 at this point.

Using the frame as a guide, position the six deck support concrete footing blocks where you want the final position of the rain barrel frame to be.

With the patient helper's assistance, position the rain barrel frame feet over the square recesses in the deck support concrete footing blocks and press each leg into its supporting block. The sledge hammer or fence post driver can help the legs drop into the square recesses.

It may be necessary on one or more of the legs to undo the screws so the frame legs can go all the way into the footer block recesses. Figure 4 shows how one leg went deeper than expected. The four 3" long screws had to be backed out of one center leg but were left in the 2x4, Once the leg was reset (see Figure 4, the four screws were run back into the 4 x 4 leg. Figure 4 shows the leg after being re-screwed to the long table frame.



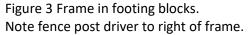




Figure 4 Offset on one leg.

The remaining 2x4 by 2 feet long floor pieces are spaced along the top side rails of the rain barrel frame and secured with one 2 ½" long deck screw on each end. You could use two screws on each end but one should work well.

Put the rain barrels on the frame once the top rail floor pieces are secured. See Figure 5.





Figure 5 Figure 6

Align the two spigets on the bottom of each rain barrel to the front (or back) of the rain barrel frame. Cut the hose lengths to about 10 inches. When inserting the female fitting on each end, coat the inside of the hose with liquid hand soap and it will help the female fitting slip inside the hose. I also found it convenient to use a socket or plug of wood that fits inside the female fitting to help push on the fitting to seat it on the end of the hose.

Figure 6 shows the rain barrels with transfer hoses secured. In the configuration shown, water could be taken from the left side as the right side is too close to the wall. I might run a clear hose on the unused spigot on the right side up to the top of the barrel to act as a sight glass.



Figure 7

The white expandable plastic hose from the roof gutter is put into the top of the rain barrel closest to the house. This picture shows the hose fitting on a 2 x 4 but the patent assistant has since moved the white expandable plastic hose to a clamp on the side of the house and the 2 x 4 shown in Figure 7 has been removed.

This whole project took 4 hours which included three trips to Lowes/Home Depot for white expandable plastic hose components per my patient assistant's insturctions.

These pictures show a cedar rain barrel frame. If we put another a table on another corner of the house, I will try treated lumber so I can get a comparison between how they both age.