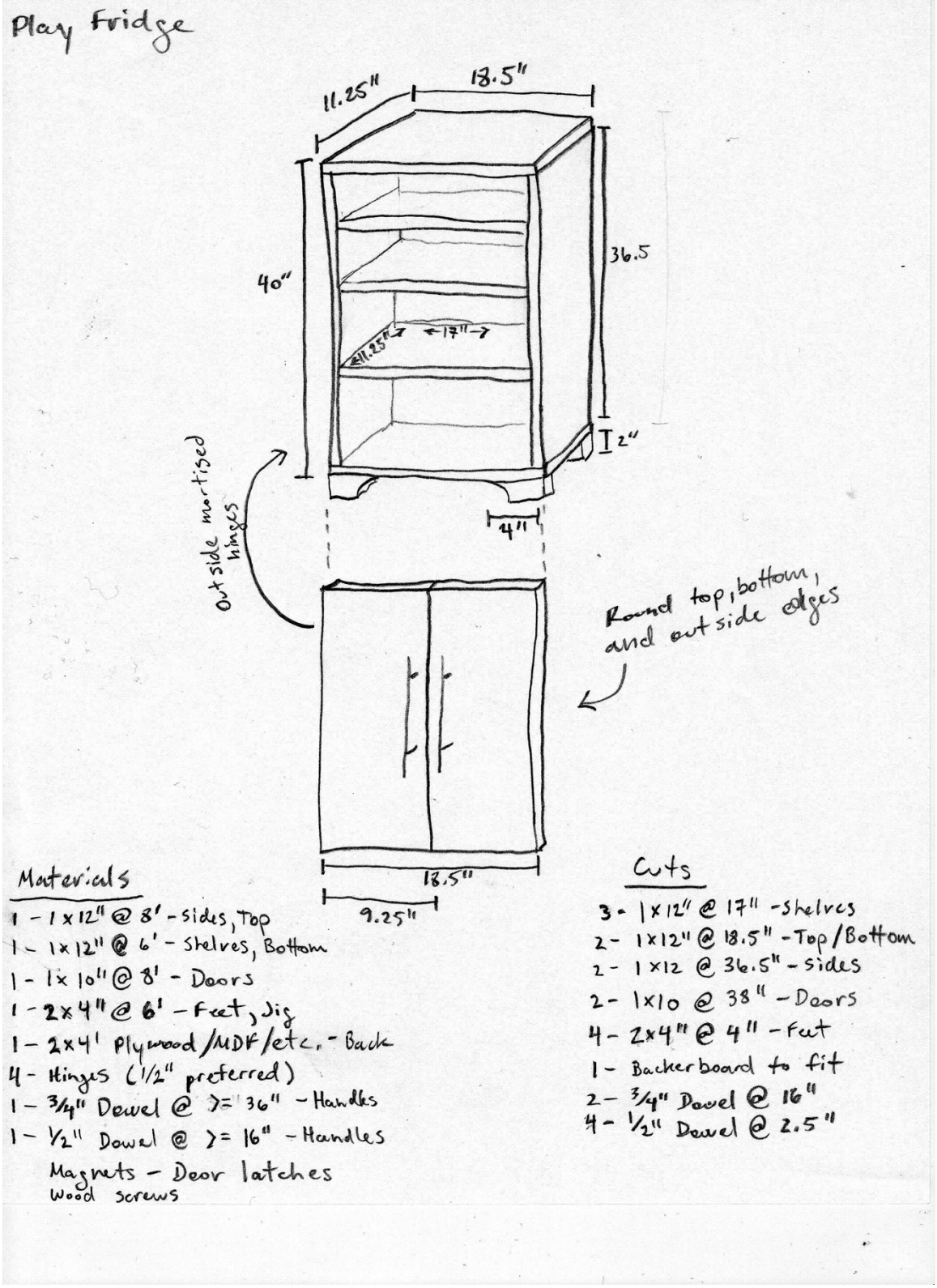
Play Fridge Plans



Materials

1 - 1x12" @ 8' - sides, Top
1 - 1x12" @ 6' - Shelves, Bottom
1 - 1x10" @ 8' - Doors
1 - 2x4" @ 6' - Feet, Jig
1 - 2x4' Plywood/MDF/etc. - Back
4 - Hinges (1/2" preferred)
1 - 3/4" Dowel @ >= 36" - Handles
1 - 1/2" Dowel @ >= 16" - Handles
Magnets - Door latches
Wood screws

Cuts

3 - 1x12" @ 17" - Shelves
2 - 1x12" @ 18.5" - Top/Bottom
2 - 1x12 @ 36.5" - sides
2 - 1x10 @ 38" - Doors
4 - 2x4" @ 4" - Feet
1 - Backerboard to fit
2 - 3/4" Dowel @ 16"
4 - 1/2" Dowel @ 2.5"

Materials

1 – 1x12" @ 8' (Sides, Top)
1 – 1x12" @ 6' (Shelves, Bottom)
1 – 1x10" @ 8' (Doors)
1 – 2x4" @ 6' (Feet, Handles Jig)
1 – 2x4' Plywood, MDF, etc. (Back)
4 – Hinges (1/2" preferred)
1 – ¾" Dowel @ >= 36" (Handles)
1 – ½" Dowel @ >= 16" (Handles, Handles Jig)
Wood screws
Finishing nails
Paint

Tools

Saw
Drill (Drill press helpful)
Finish nailer
Sandpaper
Paintbrush
Router (flush trim bit, roundover bit)
Wood putty
½" Drill bit
Bench chisel
Counter-sink bit to match size of wood screws

Cuts

3 – 1x12" @ 17" (Shelves)
2 – 1x12" @ 18.5" (Top/Bottom)
2 – 1x12" @ 36.4" (Sides)
2 – 1x10" @ 38" (Doors)
4 – 2x4" @ 4" (Feet)
1 – Backerboard to fit
2 – ¾" Dowel @ 16"
4 – ½" Dowel @ 2.5"

Notes

- Pick wood with no warps or bends in it. Select wood is more expensive but will be straighter and have less knots.

- Not all tools are needed. For example, finish nailer is used to make pilot holes and glue up easier and could be skipped. Likewise, the rounded corners could

either be left out or could be accommodated with a rasp and sandpaper.

- I used finishing nails, glue, and wood screws to hold the Fridge together. My kids tend to climb and be rough so I took additional steps to ensure it is solid.

- These plans detail how to create wood handles. The jig for this, which makes it easier to accurately drill into the round dowels, requires a table saw or router with a V bit. Alternatively, handles can be purchased.

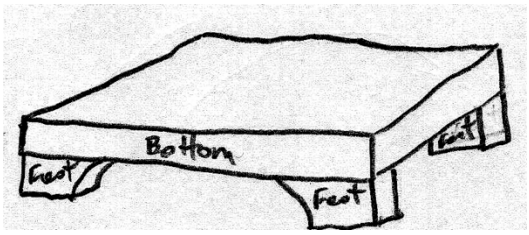
- All screws should be counter-sunk so that they can be concealed with wood putty.

Main Unit Assembly

1. Cut the Shelves, Top, Bottom, Sides, Doors, Feet, and Dowels to the specifications listed above. This should leave you with some scraps. You'll need the dowel and 2x4" scraps for the handles.

2. Cut the feet to whatever shape you want. I cut the front two so that they had a curve in them (see images below) and left the back two so they were just blocks.

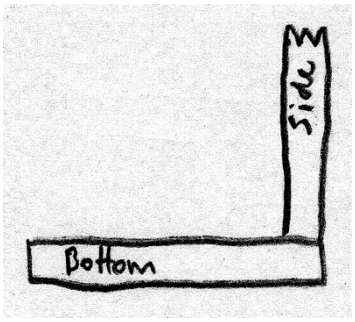
3. Attach the feet to the bottom. Apply a line of glue to the top of each foot then fasten to the underside of the bottom with finish nails. Drill pilot holes and secure with wood screws.



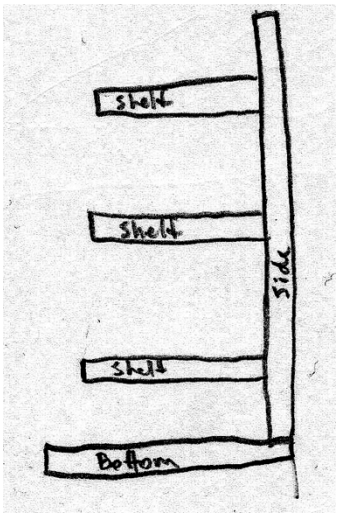
4. Round over the top, bottom, and outside edges of each door.

5. Round over the sides and back of the top. Do not round over the bottom.

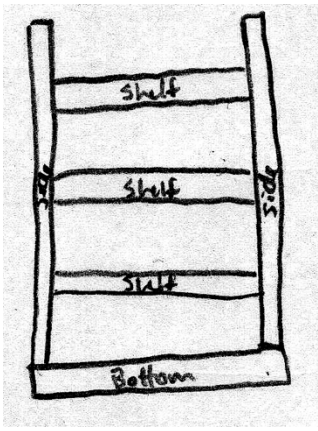
6. Attach one side to the bottom so that the side sits on top of the bottom. Apply a line of glue to the bottom of the side then fasten to the bottom with finish nails. Drill pilot holes and secure with wood screws.



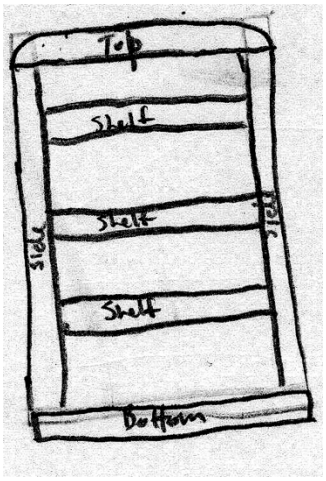
7. Attach each shelf to the side. Apply a line of glue to the side of each shelf then fasten to the side with finish nails. Drill pilot holds and secure with wood screws. Even if you choose to not use wood screws elsewhere, consider using them on the shelves to accommodate children climbing on them.



8. Attach the other side to the assembly. Apply a line of glue to the bottom of the side and to the end of each shelf then fasten together with finish nails. Drill pilot holds and secure with wood screws.



9. Attach the top to the assembly with the flat side facing the front. Apply a line of glue to the top of each side then fasten the top to the assembly with finish nails. You can optionally use wood screws as well, however doing so would require a hold through the rounded corners, meaning your wood fill will require you to sand to the rounded shape.



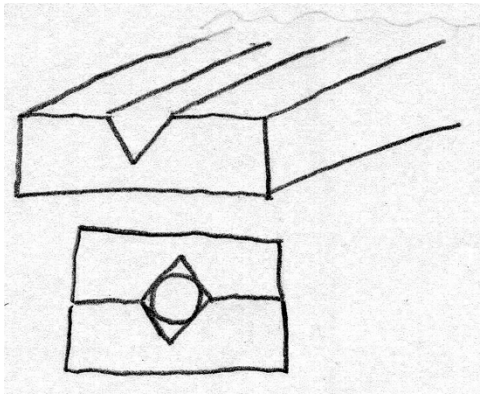
10. Fasten the back to the assembly using finish nails, aligning so that one side is flush with one of the sides of the assembly and the top is even with the bottom of the roundover on the top. Use a saw to rough cut it to shape, leaving ¼" - ½" extra. Use a router with a flush trim bit to trim the extra

wood to the same size as the assembly. At this point the back should be the same size as the assembly.

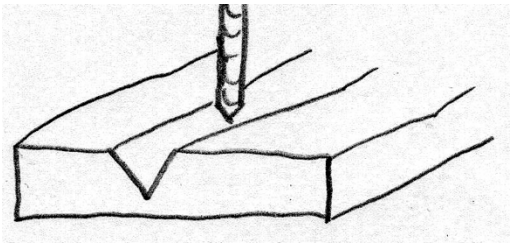
Handle Jig and Handle Assembly

1. Cut the left over 2x4" into two 16" pieces.

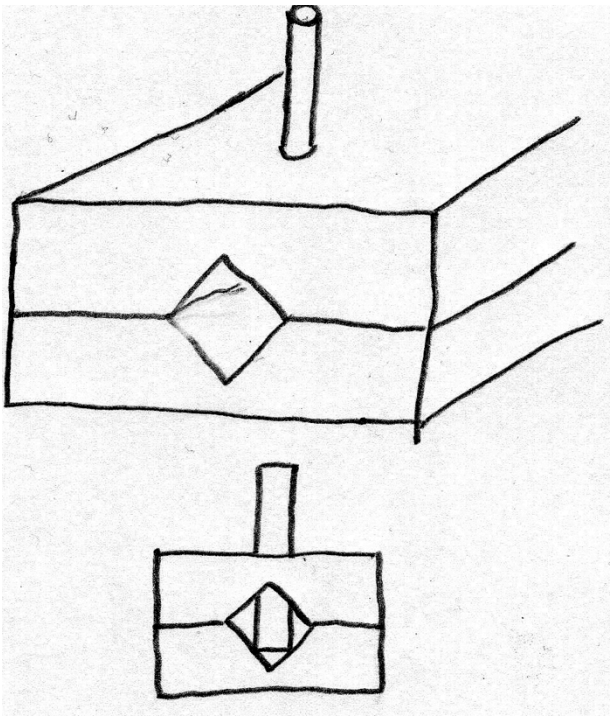
2. Use a table saw or a router with a V bit to cut a groove into one side of each 2x4". The groove should be deep enough so that when the pieces are placed together, the ¾" dowel fits snugly inside without any gaps between the two 2x4" pieces.



3. Using a ½" drill bit, drill through the bottom of the V shape, on one piece, 3" from each end of the jig.



4. Place the extra piece of ½" dowel through one of the holes and use the dowel to line up the grooves. Place a finish nail then repeat with the other side. The end result should be a jig that you can slide the ¾" dowel through and that you can drop the ½" dowel through either hole and have it centered in the bottom V.



5. Place the ¾" dowel in the jig and drill through one of the holes, about half way into the ¾" dowel. Make sure you mark the depth so that it is uniform for all holes. DO NOT DRILL ALL THE WAY THROUGH THE ¾" DOWEL!

6. Place the ½" dowel through the jig and into the ¾" dowel. This will hold the ¾" dowel in place and will ensure that both holes you drill are parallel. Repeat step 5 on the other side of the jig.

7. Drill holes through the two ½" by 2.5" dowels. These holes should be to match the size wood screws you are using.

8. Apply a small amount of glue to the holes in the ¾" dowels and insert the ½" by 2.5" dowels. If you drilled holes all the way through the ½" by 2.5" dowels, you should prop the pieces so that the ½" dowels are facing upwards so that

the glue does not fill and dry inside them.

9. Once dry, position handles on door and drill pilot holes through each door for the wood screw.

Final Assembly

1. Align the doors with the main assembly and mark the positions for the hinges. Use a bench chisel to create the mortise for the hinges.

2. Fill all holes with wood putty.

3. Sand.

4. Paint. I painted the handles first using silver metallic spray paint, then attached after the main unit had been painted.

5. Attach doors with hinges.

6. I got some small magnets to add to the door and shelves so that there was a slight pull, just like a real fridge. I got a couple round ½" magnets and a few ¼" regtangle ones. I inlaid the rectangle ones on the front of the shelves and the round ones in the door, carving the holes with my bench chisel. I waited to do this until this step to ensure that the magnets aligned correctly after assembly. I then painted over each so they blended in with the part they were inlayed into.

7. Attach handles.

Pictures