

# Neonatal Nursery Table Construction Austin Pets Alive!

*Courtesy of Kathleen Klaus*

### Overview

These instructions assume that the builder has the appropriate tools and enough carpentry experience to know how to cut boards, screw them together with the appropriate sized wood screws, and construct a dado (groove) joint. This author watched an experienced carpenter make one of these tables. He used a table saw, miter saw, router, impact drill (for countersinking the screw heads beneath the surface of the board), and electric sander.



*Photo of finished table*

## Materials

- ¾" thick MDF board for the table top (see dimension table below)
- 6 8-ft 1" x 4" pine boards for the rest of the table (see dimension table below)
- 4 screw-on caster wheels for the table legs – 2 stationary & 2 pivoting wheels with locks
- 1 ¼" wood screws
- Construction glue for wood
- Wood putty (plastic wood)
- Medium and fine grit sandpaper
- White primer
- White high-gloss low VOC latex enamel paint

## Cutting Dimensions

ID	Piece	Qty	Width	Depth	Height
A	table top - use MDF board	1	30"	19 1/2"	3/4"
<i>All pieces below cut from 1" x 4" pine boards, which in reality are 3/4" x 3 1/2"</i>					
B	tabletop frame - back	1	29 1/2"		3/4"
C	tabletop frame - sides	2	20"		3/4"
D	vertical side rails	9	28 1/2"		3/4"
E	bottom inside frame - back	1	28 3/4"		3/4"
F	bottom inside frame - sides	2	20"		3/4"
G	bottom outside frame - back	1	33 1/4"		3/4"
H	bottom outside frame - sides	2	20 3/4"		3/4"
I	foot rest	1	30 3/4"		3/4"
J	wheel base blocks	4	3 1/2"	2 1/2"	3/4"

## Notes on Assembly Diagrams

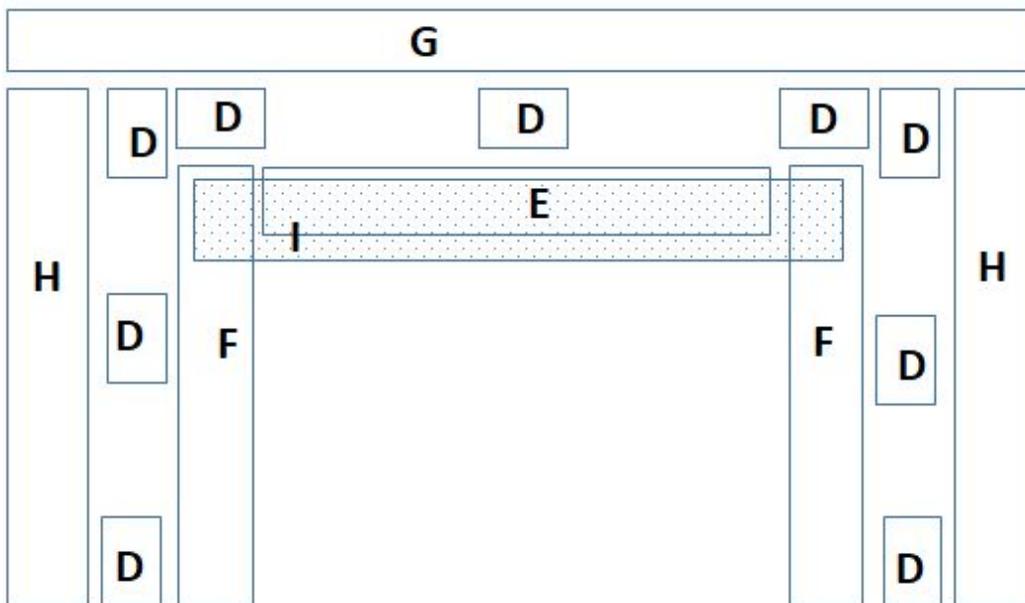
- This author does not have 3D drawing software or Visio, so please excuse the rudimentary nature of the drawings in the assembly instructions.
- The drawings show a top view, as if you are looking down from above and seeing only the edges of the boards, not their flat surfaces. The drawings are roughly to scale, but not exact.
- The drawings also show a narrow gap between the boards, only for the purpose of clearly showing how the edges align. There are no gaps once you screw the boards together.
- The photo at the beginning of these instructions provides a 3D view of how all the parts go together.

## Assembly

### Bottom Frame

Assemble the bottom frame as shown below. Remember that you're looking down and seeing just the  $\frac{3}{4}$ " edges of the boards. *Exception: The drawing shows the surface of the footrest board, not its edges.*

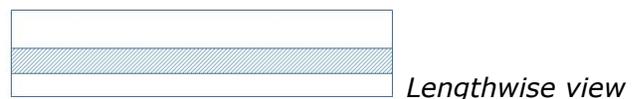
1. Assemble inner frame by screwing the inside sideboards (**F**) to the ends of the inside back board (**E**).
2. Attach 3 vertical rails (**D**) to the outside of the inside backboard (**E**), then attach 3 vertical rails (**D**) to the outside of each inside sideboard (**F**). Note that the vertical boards on the back corners attach to each other. (see photo on page 2 for alignment of vertical rails)
3. Attach the outside side boards (**H**) to the vertical boards (**D**), then attach the outside backboard (**G**).
4. Lay the footrest (**I**) at the back of the inside frame and screw it to the frame (see photo for alignment).



### Prepare Dado (groove) joint

The groove serves as the pocket in the frame into which you will insert the table top.

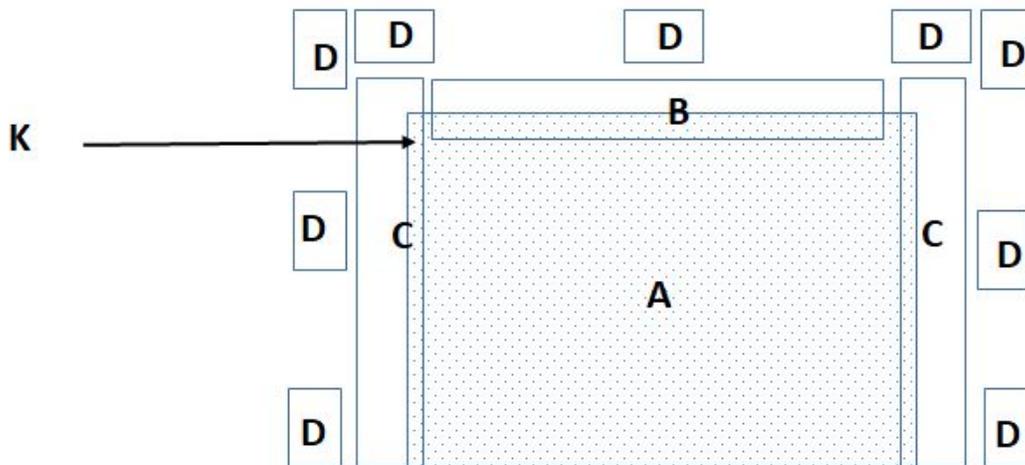
1. Grind a squared-off groove (channel) in the back tabletop frame (**B**) and the two side tabletop frames (**C**).
2. Start the groove 2" down from the top edge of the boards. The groove should measure  $\frac{1}{2}$ " deep and a scant  $\frac{7}{8}$ " wide.
3. Make sure that the edges of the grooves on the back and two sideboards line up exactly.



## Table Top

Assemble the table top as shown below (remembering that you're looking down and seeing just the 3/4" edges of the boards.)

1. Lay the tabletop frame side boards (**C**) against the ends of the tabletop frame back board (**B**), making sure that the edges of the grooves align perfectly. Then try sliding the table top into the groove joint to see if it fits well. If necessary, grind the groove a bit more to ensure a good fit. Once you have a good fit, attach the two side tabletop frame boards to the back tabletop frame board.
2. Apply wood glue to the groove, then slide in the table top (**A**).
3. Slide the table top assembly inside the vertical rails (**D**) so that the top edges all line up. Screw each vertical rail to the backstop rail. In the spaces between the vertical rails, add additional screws from the outside of the tabletop frame into the side of the MDF board (**K**).



## Finish Table

1. Screw a wheel base block (**J**) to the bottom of each table leg. Screw a caster wheel to the bottom of each wheel base. Place the 2 pivoting wheels on the left side of the table and the 2 locking wheels on the right side.
2. Fill any gaps between the tabletop surface and its frame with wood putty. If there are gaps between any other joined boards, also fill them with wood putty. Let the wood putty dry.
3. Sand all surfaces first with a medium grind sandpaper, then with a fine grind. Thoroughly clean off all the dust.
4. Prime the table with primer and let dry.
5. Paint the table with high-gloss enamel and let dry.
6. Lightly sand the table with a fine grit sandpaper and remove all dust. Apply a second coat of high-gloss enamel and let dry.

**NOTE:** The paint should cure for 4 weeks before the Nursery starts using the table. The constant cleaning with disinfectant solutions will ruin the finish if they're applied before the paint is fully cured.