

Light Up Pedestal Table



Final Dimensions: 30" tall x 12" x 12" at top that tapers down to 8" x 8" at the bottom

Router Bits and Supplies Needed:

- Lock Miter bit (#17849), with set-up block (#9755)
- Glue Joint bit (#7852)
- Taper jig (#9008)
- Double Face Tape (#9489)
- 13/64" Plywood Straight bit (#5490)
- (4) MLCS 12" x 24" Acrylic Panels (#2003)
- 45 degree Brass Piloted Chamfer bit (#6612)
- Flush Trim bit (#5099)
- Merle Clamps (#9012)
- 1-3/8" Forstner bit (#9319)
- (1 or 2) 18" Undercounter Fluorescent Light
- Extension Cord
- 1-5/8" and 1/2" Wood Screws
- MDF 12" x 32" x 3/4"
- Cherry or other wood – (4) boards- 8' long x 7" wide x 1" thick

Other Tools Used:

Router Table
Table Saw
Jigsaw or Scroll Saw
Band Saw
Bevel Gauge
Drill or Drill Press
Thickness Planer
Sander

1. Make a full sized drawing onto a piece of 3/4" x 12" x 32" MDF, with a design in the center to act as a window for the acrylic to show through. Rip it in half, and then use a band saw or jigsaw to cut out the window design on one half of the MDF template (see Figure A). After cutting out the design, use a rasp and a file to smooth out any rough edges left from the band saw or jigsaw.



(Figure A)

2. Rough cut 8 boards to a dimension of 7" x 36" x 3/4".
3. Make the 4 side panels by using the Glue Joint bit (#7852) to join (2) boards together to make each panel (see Figure B). After the glue has dried, rip each panel to a 12" width and plane down to a 1/2" finished thickness.

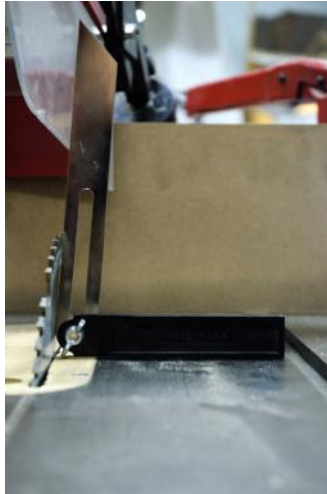


(Figure B)

4. Cross-cut the panels to 30" with a beveled edge, using the angle obtained from the MDF template and the bevel gauge (see Figure C). Crosscut off any snipe left over after planing. Use the bevel gauge to set the angle of the table saw blade (see Figure D). Remember to cut the same bevel in the same orientation, on both the top and bottom of each panel (see Figure E).



(Figure C)



(Figure D)

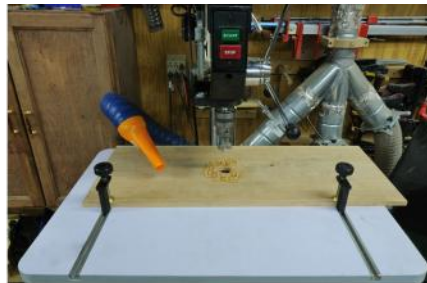


(Figure E)

5. Trace the cut out design on the wood panel using the MDF template. Screw or nail blocks onto each end so the template will fit over the 30" panel to align the template to the panel (see Figure F). Cut out the design by first drilling 1-3/8" holes in the design (see Figure G.), using forstner bit (#9319). Use a jigsaw or scroll saw to complete cutting out the design using the 1-3/8" holes to start the cut (see Figure H), leaving about an eighth of an inch to be flush trimmed to final shape by the router.



(Figure F)



(Figure G)



(Figure H)

- Using double face tape (#9489), temporarily secure the M.D.F template to the wood panel. Use the Spiral Upcut Flush Trim bit (#5099) to flush trim the design cut out in each panel to the template (see Figure I).



(Figure I)

- Using the brass piloted 45 degree Chamfer bit (#6612), cut the chamfer profile along the entire inside edge of the design (see Figure J). Put the outside face of the panel down against the router table when cutting the chamfer.



(Figure J)

- Cut the tapers on the panel using the Taper Jig (#9008). Use the MDF and the miter track on the table saw to set the angle of the taper jig and cut one side of each taper on all four wood panels (see Figures K and L). Then use the cut-offs and double face tape (#9489) to secure them back to the board to cut opposing taper, without having to reset the angle of the taper jig (see Figure M).



(Figure K)



(Figure L)



(Figure M)

9. Using the set up block (#9755), set up the Lock Miter bit (#17849) to cut the long edges of each panel (see Figure N). On (2) of the panels, make the cuts laying flat and horizontal on the table with the outside face up. Make the cuts on the other (2) panels with the panel up against the fence, standing vertically with the inside faces against the fence. For additional hints refer to the Lock Miter instructional video on the MLCS web site.



(Figure N)

10. Cut a 1/4" deep dado from edge to edge in the bottom inside of the panel using the 13/64" plywood bit (#5490). Make this dado a 1/2" up from the bottom edge. Using 1/4" plywood, cut a piece 7.5" x 7.5" to fit in the dado slot at the bottom of the table sides (see Figure O).



(Figure O)

11. Glue all (4) panels together with the bottom piece of plywood inserted into the dado. Use four Merle Clamps (#9012) to clamp the assembly together during the glue up (see Figure P).



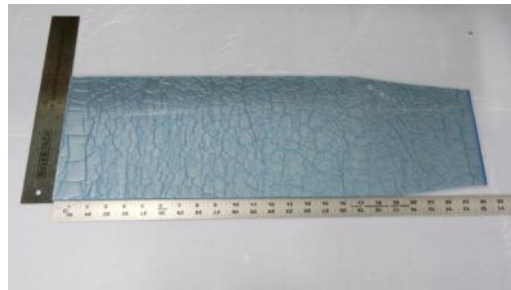
(Figure P)

12. Using 1/2" plywood, size a piece to fit snug and flush with top of the sides (see Figure Q). Using the Glue Joint bit, glue together (2) 7" x 13" x 3/4" pieces of Cherry, for the top. After the glue has dried, plane the top down to a 1/2" finished thickness. Screw the 1/2" plywood "plug" to the 1/2" wood top using small 1/2" wood screws. Trim the wood top to fit flush with the sides of table.



(Figure Q)

13. Rip the four 24" long Acrylic sheets to 8" wide and taper bottom 6" length of sheet so they measure 6" across at the bottom width (see Figure R). From the 8 different colors of MLCS Acrylic Inlay Material, I chose the aqua colored acrylic to match the cherry.



(Figure R)

14. Make a rest for the acrylic to rest on inside bottom of the table (see Figure S). Make this rest from a 5" x 2.5" x 1/2" piece from wood and make a 1/4" deep x 1/4" height rabbit along the 5" length. You may find it easier to machine if you start with a 22" long piece of stock and crosscut into 5" pieces after all of the machining has been completed. Fasten these blocks to the bottom inside of the table using a 1/2" wood screw (see Figure T).



(Figure S)



(Figure T)

15. I used scrap left over from making the test cut on the lock miter joint, to use as retainers to hold the top of acrylic to the inside top of the box (see Figure U). Countersink the screws into the retainers and screw them into position with 1/2" screws, inside the table to secure the top of the acrylic (see Figure V).



(Figure U)



(Figure V)

16. Make a stand to hold the lights inside. I used a piece of 5" x 5" x 1- 1/2" piece of oak as the base (Figure W.), a piece of 3" x 28" x 1/2" plywood for the vertical support, and a 6" x 10- 1/2" x 1/2" piece of plywood as the top (see Figure X). After drilling and chiseling out to complete the mortise in the base and in the top, which will accept the vertical, screw the base to vertical and vertical to the top together with 1-5/8" screws (see Figure Y.). The (2) 18" under counter florescent lights were mounted to the vertical support to light the inside of the base. To give the light support a finished look, cut a piece of cherry to cover the plywood top on the light support (see Figure Z).



(Figure W)



(Figure X)



(Figure Y)



(Figure Z)

17. Drill a 1-3/8" hole (forstner bit #9319) in the bottom of the corner of the table bottom to fit an extension cord through to connect to the light fixtures (see Figure Z2). Felt pads were added to give clearance for extension cord and to keep the table from scraping floors (see Figure Z3).



(Figure Z2)



(Figure Z3)

