



Toy / Blanket Chest



Router bits used:

Pedestal Molding bit (MLCS item #7890)
Traditional foot bit (MLCS item #8590)
3/4" Rabbeting bit (MLCS item #7694)
5/32" Slot Cutter (MLCS item #5364 / 7664)
1/2" Straight bit (MLCS item #5474 / 5477 / 7774)

Additional MLCS items used:

Fast Joint Precision Joinery System (MLCS item #9411)
Teddy Bear templates (MLCS item #9418)
20 amp Speed control (MLCS item #9410)
Merle clamp (MLCS item #9012)
Router table (MLCS item #2392)
#20 Biscuits (MLCS item #9020)

Additional tools used:

Router Table with insert capable of accepting Template Guide Bushings
Table Saw
Miter Saw
Clamps

Getting started :

Plane your stock to a 3/4" thick finished dimension. Cut your boards to an oversized length (leave an extra inch or two). Rip your stock to a width of 6". Join the two pieces together using a biscuit joint to create a 12" wide panel. Cut the slots for biscuits using the 5/32" slot cutter (MLCS item #8365). Be careful not to place any biscuits too close to the ends of your stock as the biscuits or slots may show when you cut the stock to its finished length (see Figure A).



Figure A

Make a registration line on your stock (both pieces) at the center line for the biscuits and cut slots on router table according to the instructions for biscuit cutting on the MLCS website (see Figure B).

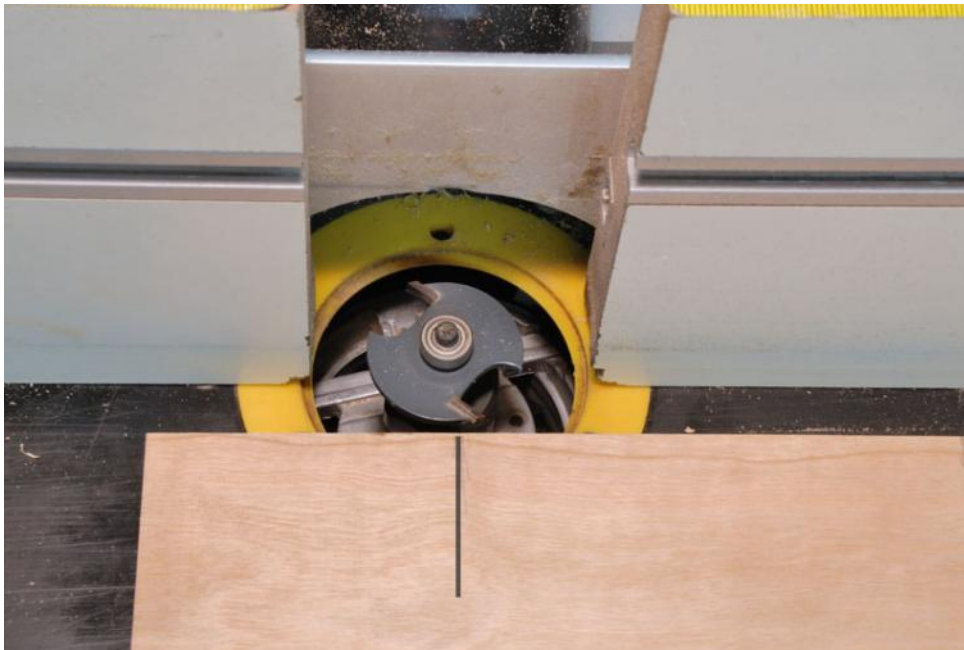


Figure B

Apply glue to edges of the boards and use a clamp to hold the pieces until the glue sets. Use a thin piece of scrap wood placed between the clamp and boards, so the clamps will not damage the edges of your glue up. Be sure to use a damp cloth to clean off excess glue that squeezes out of the joint. Sand to 220 grit or 320 grit when glue dries (see Figure C).



Figure C

After the glue has dried, rip all boards on the table saw to make sure all are a uniform 12". Also crosscut boards to final length (see Figure D).



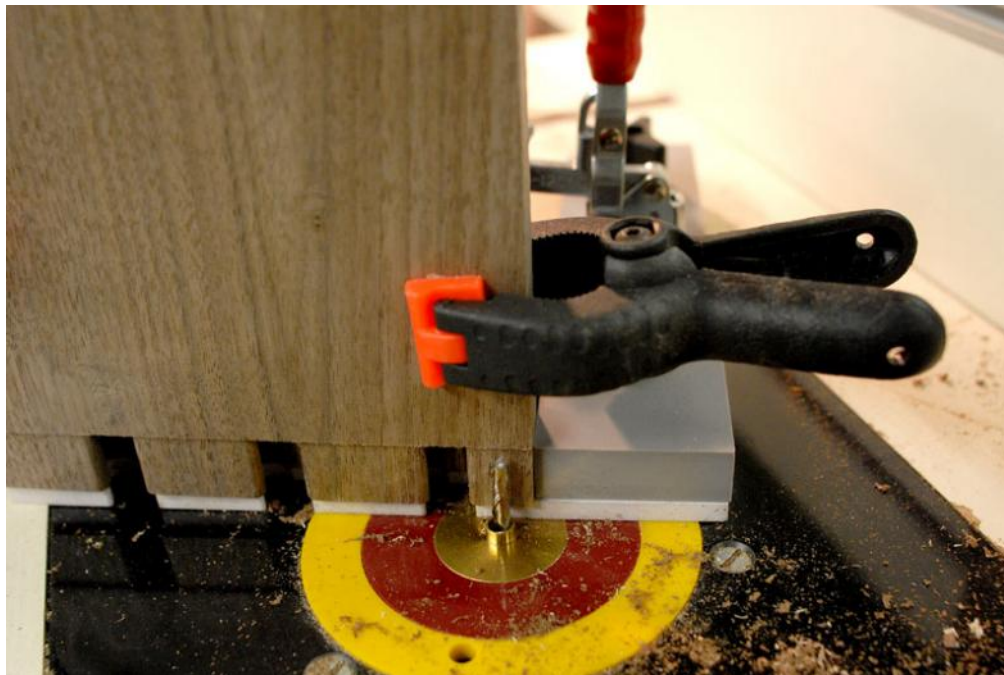
Figure D

Cut the pins and tails on the Fast Joint System Precision Joinery System (MLCS item #9418) with the decorative template of your choice. For this project we have chosen to use the Teddy Bear templates (MLCS item #9418). Make sure to mark your boards for the inside, outside, left side, right side, front, back, top and bottom to avoid any mistakes (see Figure E).



Figure E

Make small light cuts to avoid tear out. Remember to make sure to clear out chips that build up between the brass bushing and the template. Make sure to do a final clean up pass to get the full cut of the profile (see Figure F).



Rout out a 1/2" wide x 3/8" deep slot for the MDF bottom of the box using a 1/2" straight bit by spacing the fence 3/4" away from the bit. Be sure not to cut all the way through the edge of the joints. This can be done by using stop blocks or by marking the fence with reference points (see Figure G).



Figure G

On the inside of the front and back of box, I used the line on the fence as a reference of where to start and stop my cut. Again remember not to router through all the tails of the board (see Figure H).

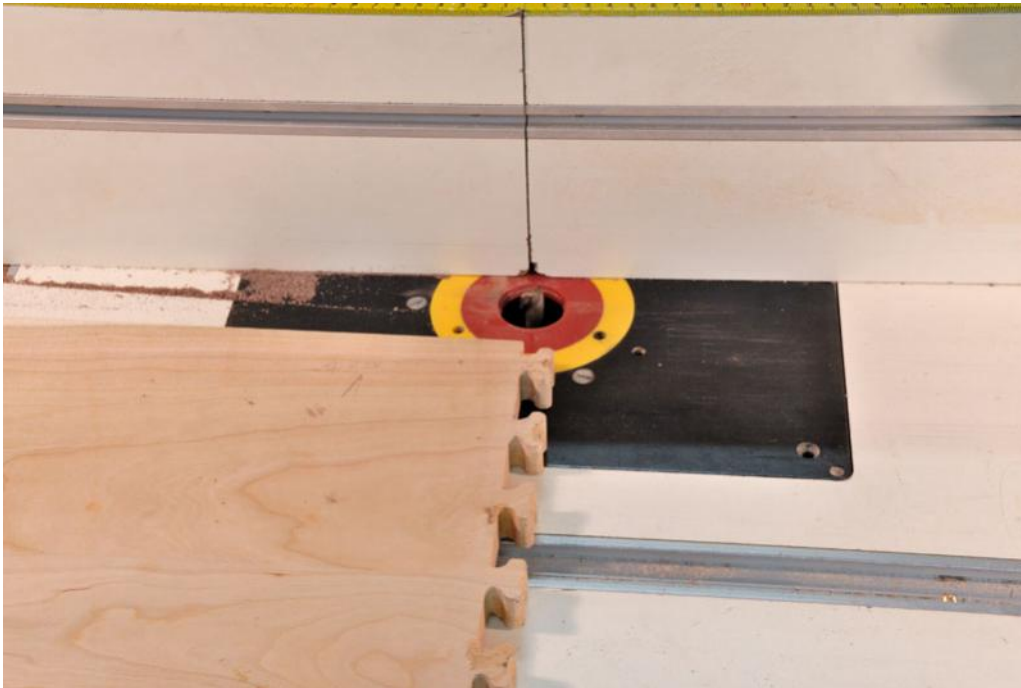


Figure H

Cut the bottom of the box to 23-1/4" x 11". For this project I chose to use MDF as the bottom. Glue and assemble the box with bottom in place (see Figure I).



Figure I

Clamp the box together and make sure to have a damp cloth to wipe off excess glue that squeezes out of the joint on the outside and inside corners (see Figure J).



Figure J

Cut 3/4" strips to frame the top. Miter the corners to frame the top. Glue on sides of top and clamp with the Merle Clamp (MLCS item #9012) (see Figure K).

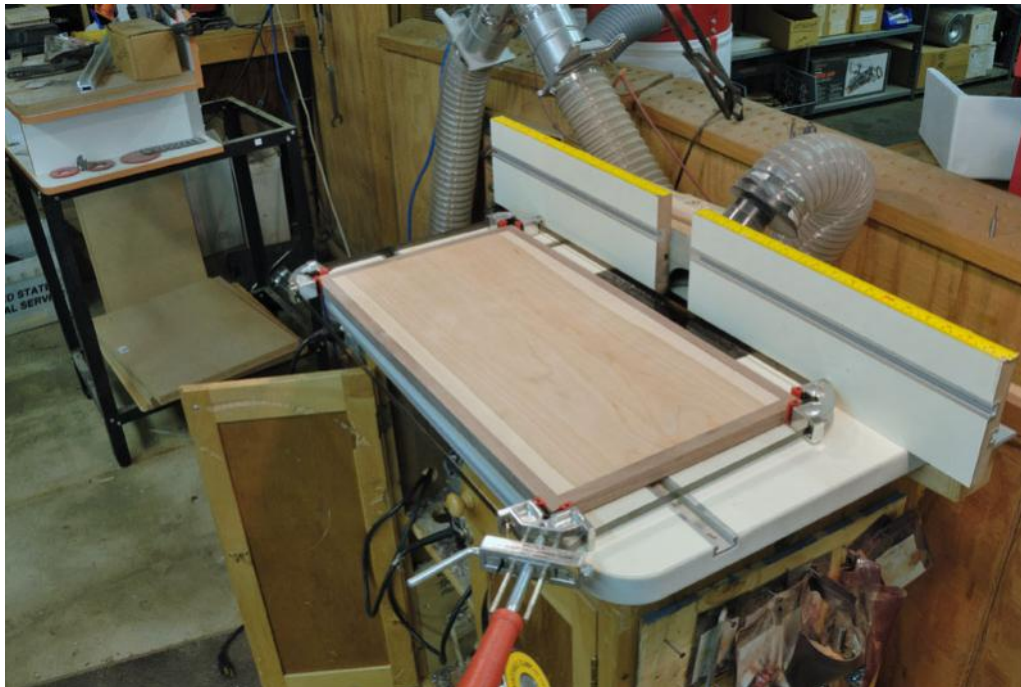


Figure K

Using the Pedestal Molding bit, rout the top of the box to get the profile on the edges. Make multiple passes by moving the fence to prevent tear out and get a clean cut (see Figure L).



Figure L

To prepare stock for the base, rip 4 pieces wood on the table saw to 3/4 " x 2-3/8" x 48". Glue two pieces face to face and clamp together, again wiping off excess glue with damp cloth (see Figure M).



Figure M

Using the Traditional foot bit (MLCS item #8590) cut the profile on both boards. Make multiple passes by moving the fence to get a smooth cut and prevent tear-out (see Figure N).



Figure N

Rabbet the foot at 3/4" depth of cut and 1/4" from the top of the back side of the foot. Again use multiple passes by changing the cutting height (see Figure O).



Figure O

Using the miter saw cut, one edge at a 45 degree and mark the board for the other 45 degree cut. Working your way around the box, attach all the sides together using glue and/or nails (see Figure P).



Figure P

Measure 3 inches in from the back top edge on both sides to mark the placement for the hinges (see Figure Q).



Figure Q

Trace the hinges to mark out for your mortise. Mark where you have to drill to attach the hinges. Make sure to let the barrel of the hinge hang over the edge (see Figure R).



Figure R

Drill for the hinges before cutting the mortise. Chisel out the mortise carefully by first scribing the outside lines and then chiseling from the inside out. Make light cuts so you do not tear out the edge of the mortise (see Figure S).



Figure S

Flip the box upside down and center on lid and mark lid for the mortise (see Figure T).



Figure T

Lay out the mortise on the lid making sure that it will fit the whole hinge including the barrel. Double check to make sure that placement of the lid will be correct (see Figure U).



Figure U

Carve out the mortise from the inside out (see Figure V).



Figure V

Attach hinges to box (see Figure W).



Figure W

Lay the box on its back and line up hinges to the lid mortises and drill and attach the hinges. Make sure not to drill through the top of the lid by placing a piece of tape on the drill bit to show the depth of the bit while drilling (see Figure X).



Figure X

Finish sand and apply a desired finish of your choice, such as a polyurethane because of its durability compared to oil if the chest will be used as a toy box.

Toy Chest Cut List

Description	Length	Width	Thickness	Quantity	Material
Front, Back and Top	24"*	6"*	3/4"	6	Cherry
Sides	12"*	6"*	3/4"	4	Walnut
Bottom	23-1/4"	11"	1/2"	1	M.D.F.
Top Trim	42"*	3/4"	3/4"	2	Walnut
Bottom Foot	42"*	2-3/8"*	3/4"	4	Walnut

(* Cut boards oversized at first and trim to final size later)