

Project 13950EZ: Coaster Set

As an attractive gift or a practical item in your own household, this contemporary coaster set combines both router work and the challenge of dovetails. Except for the back, this project is entirely made of 1/4" thick stock. The back is made of 1/2" thick



oak veneered plywood. We chose white oak for all parts because we liked the grain pattern, although any suitable hardwood can also be used. However, oak may not be advisable if you are just learning to cut dovetails. Being a very coarse-grained wood, it tends to splinter as it's cut, so oak dovetails can be difficult to master at first.

Coaster Set Materials List

Part	Description	Size	No. Req'd
A	End	1/2" x 4-1/4" x 3-1/8"	2
B	Top and Bottom	1/2" x 4-1/4" x 9"	2
C	Back	1/4" x 2-5/8" x 8-1/2"	1
D	Coaster	1/2" x 4" x 4"	8
E	Cork	3-1/4" dia.	8

Coaster Set Step-by-Step Instructions

1. Cut the two ends (parts A) and the top and bottom (parts B) to overall length and width.
2. Refer to the drawing and lay out and cut the dovetails as shown.
3. Dry assemble the parts and check for proper fit.
4. Make adjustments as necessary.
5. Dry assemble again and make sure everything fits properly.

6. Disassemble and apply an aliphatic resin (yellow) glue to the joints.
7. Reassemble.
8. Clamp firmly and allow to dry overnight.
9. Equip the router with a 1/4" piloted rabbet bit.
10. Cut a 1/4" deep by 1/4" wide rabbet all round the inside back edge to receive the back (part C).
11. Cut the back (part C) to size.
12. Round the corners on the back (C) to match the curve formed by the router bit.
13. Assemble the back to the case with glue and clamps.
14. Create the simple jig shown in Figure B. It consists of a 1/4" thick hardboard template (see figure B), a 1/2" x 1/2" guidestrip glued along one edge, and a 3-7/16" diameter hole drilled with an adjustable hole cutter as shown. Locate the hole so that when the template is clamped in place, the hole is centered along with the width of the coaster stock. The template should be at least 15" long so that the clamps can be secured where they won't interfere with the path of the router as it makes the cut.
15. Clamp the template in place.
16. Equip the router with a 7/16" guide bushing and a 1/4" diameter straight bit.
17. Set the bit for a 1/4" deep cut.
18. Start the router and lower the bit into the stock.
19. Bring the guide bushing in contact with the template, and, being sure to hold the bushing firmly against the template (see Figure A), move the router in a counter-clockwise direction around the template.
20. Use the router free hand to clean up the remaining material.
21. Repeat this process for all eight coasters.
22. Trim each coaster on the table saw to a length of four inches.
23. NOTE that the cork circle is centered in the 4" square coaster.
24. Obtain the cork to make the coaster circles.
25. Use a compass to scribe the 3-1/4" circle diameter.
26. Cut out the cork circle with scissors.
27. Glue in place.
28. Repeat the process for each coaster.
29. Final sand.
30. Stain and finish to suit.
31. Choose any knobs you desire for the coasters and attach them.

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Coaster Set Complete Schematic

