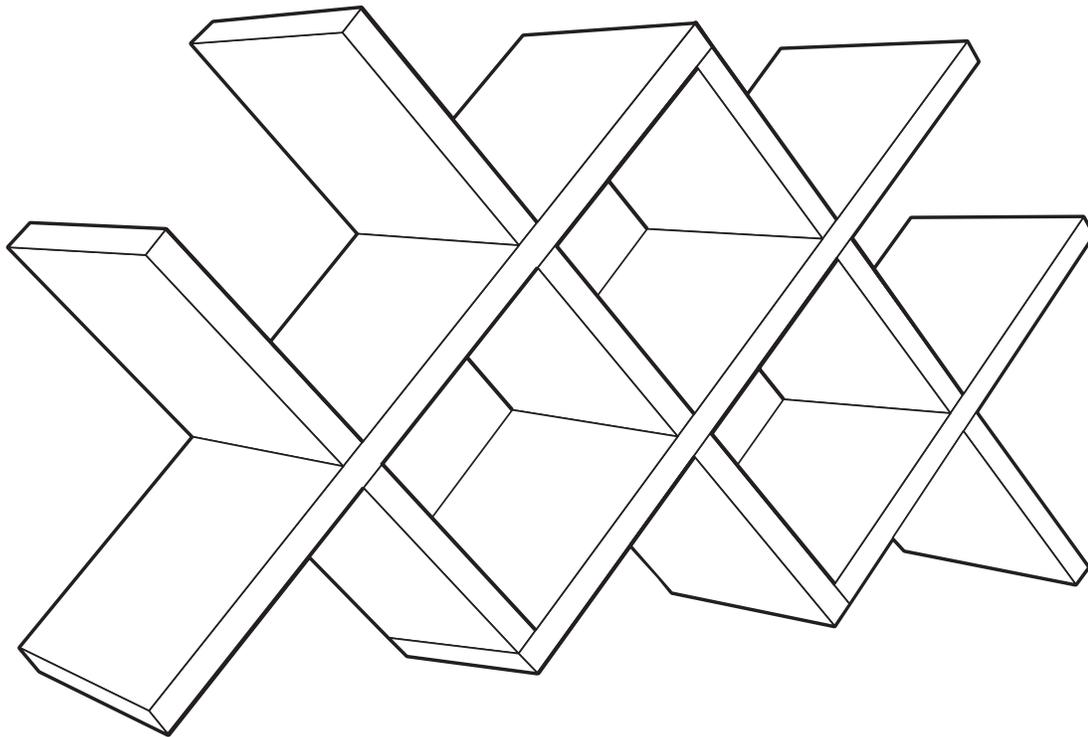


WOODWORKS: BEGINNER PROJECT 2006-2007
CD RACK



Your CDs deserve better than just being stored in piles. Here's a great looking, easy-to-build way to get 'em organized. With a traditional cross-halving joint you can build a rack that will hold up to 35 of your favorite discs. Got more? Just make more racks. It's quick and inexpensive and perfect for beginning woodworkers who want to sharpen their layout and joint-making skills. In order for this project to come out right, both must be done with precision. You'll get practice in applying and using stains and finishes to protect the wood and keep it looking beautiful for a long time.

TOOLS REQUIRED

Hand Tools

- 3/4" chisel
- Wood mallet
- Screwdriver
- 3/32" drill bit for pilot hole
- 3/16" drill bit for shank hole
- 3/8" drill bit for screw plug holes

Power Tools

- Tablesaw or circular saw with rip and crosscut blades
- Jigsaw or band saw
- Orbital sander

Miscellaneous

- Pencil
- Tape measure
- Safety glasses
- Carpenter's glue
- 120, 150 and 220-grit sandpaper
- Clean, lint-free cloths
- Respirator
- Gloves for finishing
- Mineral spirits (for oil-based stains and finishes)
- Water-filled metal container with tight-fitting lid (for oil-based stains and finishes)
- Minwax® Polyurethane Brush or other good quality, natural-bristle brush (for oil-based stains and finishes)
- Minwax® Polycrylic® Brush or other good quality, synthetic-bristle brush (for water-based stains and finishes)

SHOPPING LIST

Item	Quantity
1x6 clear pine	1 @ 10'
#8 x 1-1/2" flat head wood screws	6
3/8" screw plugs	6

Wood Recommendation: Oak

Alternate Wood Recommendation: Pine

CUTTING LIST

Overall Dimensions: 15"H x 26-1/2"W x 5-1/2"D		
Part	Pcs.	Dimensions
A	2	3/4" x 5-1/2" x 11-3/4"
B	2	3/4" x 5-1/2" x 18-3/4"
C	1	3/4" x 5-1/2" x 18-3/4"
D	1	3/4" x 5-1/2" x 19-1/2"

NOTE: Each opening is dimensioned to be 5-1/2" x 5-1/2"

WOOD FINISHING PRODUCTS

Recommended Finish

- Prep: Minwax® Water-Based Pre-Stain Wood Conditioner
- Stain: Minwax® Water-Based Wood Stain China Red (or a Minwax® Water-Based Stain of your choice, available in 6 wood tones, 60 custom colors and 8 bold Accents™ colors)
- Finish: Minwax® Polycrylic® Protective Finish Semi-Gloss

Alternate Finish

- Prep: Minwax® Pre-Stain Wood Conditioner (if using soft or porous wood)
- Stain/Finish: Minwax® Polyshades® Olde Maple Gloss (or your choice of any of the 9 Minwax® Polyshades® colors)

BEFORE YOU BEGIN

Good craftsmanship begins and ends with good work habits, so make the following steps part of your routine workshop practice. If you have any doubts or questions about how to proceed with a project, always discuss them with your shop instructor.

- Carefully and fully review plans and instructions before putting a tool to the project lumber.
- Work sensibly and safely. Wear safety goggles when doing work that creates flying chips and sawdust; wear the appropriate respirator whenever making sawdust or working with thinners or other solvents.
- At the end of every work session, clean up your shop area and put away all portable tools.

CUTTING AND ASSEMBLY PROCEDURE

1. Cut all parts to size. **NOTE:** You'll achieve the best fit on the cross-halving joints if the parts have all been planed to a uniform thickness.
2. Lay out the locations of the cross-halving joints according to the plan. Be as precise as possible.
3. Using a cutoff from the project material, locate the lines for the other half of the cross-halving joint.
4. Transfer the layout lines by placing similar pieces edge to edge and carefully transfer the lines from one piece to the other.
5. Cut the cross-halving joints with a band saw or jigsaw. Carefully cut on the waste side of the cut line.
6. Remove the waste from each cross-halving joint by chopping downward with a chisel near the end of the band saw cuts.
7. Sand all parts, starting with 120-grit paper and finishing with 220-grit. Use an orbital sander and with-the-grain sanding strokes to remove any marks or scratches.

NOTE: It is recommended that most of the parts be finished prior to assembly, as the small compartments will be difficult to work on. The only surfaces that can't be finished are those that will be screwed and plugged when the piece is assembled. When all the parts have been sanded, proceed to STAINING AND FINISHING.

8. When the final topcoat is dry, begin assembly by drilling and screwing parts A and B together. Note that you must make a left-handed and right-handed assembly.

FINAL ASSEMBLY

9. Assemble the parts A and B subsections by sliding together the cross-halving joints in part B. **NOTE:** No glue is needed in the cross-halving joints.
10. Slide part C under the cross-halving joints in parts A and B.
11. Slip part D into the remaining cross-halving joints in parts A and B. Clamp it to the end of part C. Drill and screw the parts together.

12. Plug the screw holes, sand the plugs flush, and proceed with finishing the surfaces that have been plugged.

STAINING AND FINISHING

Woodworker's Tip: *Though you may be tempted to cut short your sanding, preparation and application time, don't do it. These tasks are very important steps in obtaining a high-quality finish. Remember, it is the finish, just as much as the fit and smoothness of the parts that will have great bearing on how people judge your craftsmanship. To ensure an excellent result, follow the steps listed in this section and also the instructions the finish manufacturer puts on its products.*

Finishing Tips

- Test the stains and finishes you are planning to use on scraps of wood. On the back of the scrap, mark the stain/finish combination and the type of wood. Allow all samples to dry thoroughly before making your final finish selection. Save your samples for quick reference on future projects.
- All stains and finishes must be allowed to dry thoroughly between coats. Remember that drying times can vary due to humidity and other climatic conditions.
- If you have some leftover stain or finish, wipe the can rim so that stain or finish in the rim won't dry out and prevent the lid from forming a tight seal.
- Brushes used for water-based products, such as Minwax® Water-Based Wood Stains or Minwax® Polycrylic® Protective Finish, must be cleaned with soap and water; oil-based finishes must be cleaned with mineral spirits.

Recommended Finish

Before applying Minwax® Water-Based Wood Stain to a hardwood or softwood, apply Minwax® Water-Based Pre-Stain Wood Conditioner following the directions on the can. Applying it will help to ensure even absorption of stain and prevent blotchiness that can occur with some woods. After 1 to 5 minutes, wipe off all excess conditioner using a clean, soft cloth. Wait 15 to 30 minutes then use 220-grit or finer sandpaper to sand off any "whiskers" raised by the conditioner. Proceed to the staining within 2 hours.

13. Do the staining in two steps, starting on the interior surfaces and then do to the exterior surfaces. Apply the Minwax® Water-Based Wood Stain you've chosen using either a nylon/polyester brush or a cloth. Allow stain to penetrate no longer than 3 minutes. While stain is still wet, wipe off all excess with a clean cloth that's been lightly dampened with stain. Allow the piece to dry for 2 hours before applying a second coat, if desired. Allow the piece to dry overnight before applying the protective clear finish.

NOTE: Minwax® Water-Based Wood Stain is available in 6 wood tones, 60 custom-mixed colors and 8 bold Accents™ colors. This means that you are not limited to just traditional wood colors (pine, oak, walnut, etc.). Instead, you can actually pick and apply a color to complement the décor of the room in which the CD rack will be placed. For this reason, make sure you look over all of the Minwax® color charts or go to minwax.com before making your final selection.

14. After allowing the piece to dry overnight, apply Minwax® Polycrylic® Protective Finish following the directions on the can. Stir the can contents thoroughly before starting and periodically repeat the stirring during your work session.

15. Working a small area at a time to maintain a wet edge, apply the first coat. Work quickly and make the final strokes in each newly finished section using with-the-grain brushstrokes.

16. Allow the finish to dry a minimum of 2 hours. Then sand lightly with 220-grit or finer sandpaper wrapped around a soft backup block. Thoroughly dust off and wipe all surfaces with a cloth lightly dampened with water.

17. Repeat steps 14 and 15 to apply the second and final coat. When the topcoat is dry, return to step 8 to begin assembly.

Alternate Finish

18. Dust off the piece and wipe it carefully with a clean, lint-free cloth lightly dampened with water. Apply Minwax® Polyshades® following the directions on the can. Use a good quality, natural-bristle brush suitable for use with polyurethane. Stir the can contents thoroughly before starting and periodically repeat stirring during your work session. Allow the first coat to dry overnight.

19. The next day, sand all surfaces lightly with 220-grit sandpaper or very fine (000) steel wool using with-the-grain strokes. Dust off and wipe all surfaces with a cloth dampened with mineral spirits. Apply a second coat of Polyshades® and set the rack aside to cure overnight. To achieve a deeper color, you may apply a third coat after 6 hours, repeating the application directions. When the topcoat is dry, return to step 8 to begin assembly. Allow the rack to cure for several days before using it.

***Woodworker's Tip:** If you achieve the desired color on the first or second coats of Polyshades®, apply a clear coat of Minwax® Fast-Drying Polyurethane or Minwax® Wipe-On Poly for added protection.*

PRODUCT SAFETY

For your safety and the safety of those you work with, always read the safety warnings, which manufacturers print on their labels, and follow them to the letter.

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or your local health authority.

DANGER: Rags, steel wool, other waste soaked with oil-based stains and clear finishes, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with these products, and sanding residue in a sealed, water-filled metal container. Dispose of in accordance with local fire regulations.

When using oil-based wood finishing products:

CAUTIONS: CONTAINS ALIPHATIC HYDROCARBONS. Contents are **COMBUSTIBLE**. Keep away from heat and open flame. **VAPOR HARMFUL.** Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved), or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately.

DELAYED EFFECTS FROM LONG-TERM OCCUPATIONAL EXPOSURE.

Contains solvents that can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.** CONFORMS TO ASTM D-4326. Contact a physician for more health information.

When using water-based wood finishing products:

CAUTIONS: Use Only With Adequate Ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved), or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, get medical attention immediately.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.** CONFORMS TO ASTM D-4326. Contact a physician for more health information.

CD RACK DETAIL

