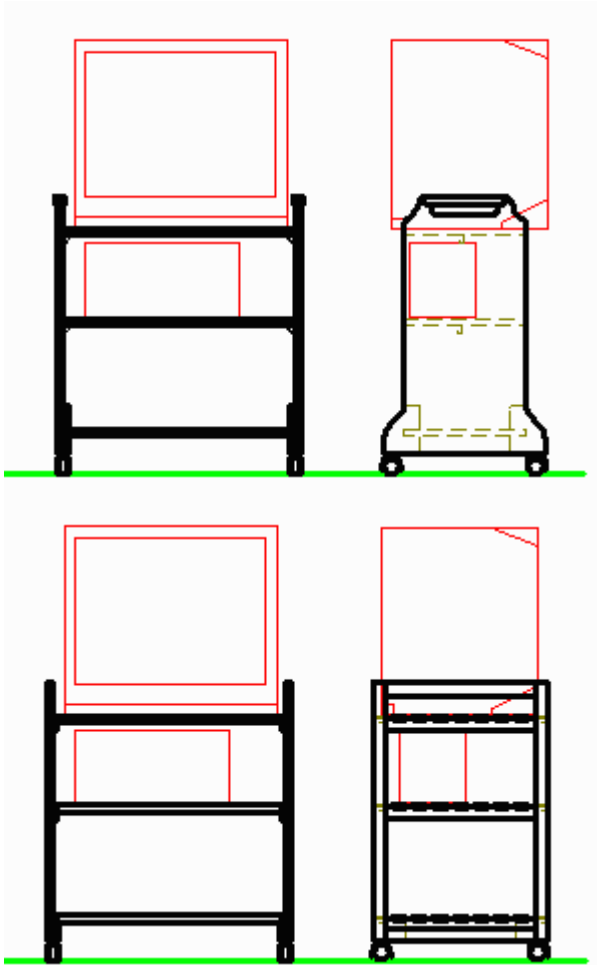


TV Stand





• **Construction Steps**

You can make one of these boxes by:

1. Printing out this text.
2. Downloading and printing out the sketches
3. Purchasing the materials, all local
4. Rough cutting wooden pieces
5. Making the joints
6. Cutting out the shapes
7. Carving the patterns
8. Sanding all pieces
9. Assembling the unit
10. Finishing all pieces
11. Installing the hardware

• **Discussion of Sketches**

After you download the sketches, these notes will help you understand them.

1. TV Stand Early American Style

The size and general outline show clearly. This design shows three shelves. You can add a fourth if you like. The handles have strips of thin wood glued on to make them thicker. The feet are double thick so that the casters can be strongly installed.

2. TV Stand, Sketch #2, Equipment Sizes

The designs shown were set for these two pieces of equipment. If you have equipment of a different size or more pieces of equipment, you may need to adjust the stand width or add a fourth shelf.

3. TV Stand Early American Style, Sketch #3, Boards

This sketch shows the boards needed to make this style of stand. They are much wider than the single boards you can buy. They can be solid wood boards edge joined with biscuits or of plywood with wooden edge trim. If plywood is used the edge trim is normally only put along the straight sections and the plywood grain is exposed on the curves.

4. TV Stand, Modern Style

This sketch shows the modern version of our TV stand. It is made from .75" by 1.5" wooden strips joined in a rectangle to make the two ends and laid out in flats to make the shelves. The shelves have end strips that are let into the frame with a dado. The bottom is doubled up to provide strength for the casters.

5. TV Stand, Sketch #5, Frame Joints Options

This sketch shows four ways to make the joints for the end frames. You could also use biscuits.

6. TV Stand, Modern Style, Sketch #6, Boards

This sketch shows boards needed to make the modern style TV stand. The eight pieces form two rectangular end assemblies. The uprights are notched 1/4 inch to take the Shelf Supports. The Shelf Supports are notched to take the shelf slats and for the end frame. The two outside shelf slats are trimmed to make room for the end assembly.

7. TV Stand, Cross Dowel Bolt

This sketch shows the modern version using cross dowel bolts. It is made from .75" by 1.5" wooden strips joined in a rectangle to make the two ends and laid out

in flats to make the shelves. The shelves have end strips that are let into the frame with a dado. The bottom is reinforced to provide strength for the casters.

8. TV Stand, Cross Dowel Bolt sketch #8, Cross Dowel Bolt Joint

This sketch shows how the cross dowel bolt joint is made.

9. TV Stand, Cross Dowel Bolt, Sketch #9, Boards

This sketch shows boards needed to make the cross dowel style TV stand. The 7 pieces form two rectangular end assemblies. The uprights are notched 1/4 inch to take the Shelf Supports. The Shelf Supports are notched to take the shelf slats and for the end frame. The two outside shelf slats are trimmed and drilled for cross dowel bolts.

• Materials

The TV Stand is made from inexpensive wood. The parts are assembled with glue, nails, and screws. The mail order source for any special hardware is given below.

1. Wood:

Early American Style:

- Wood, with only a few knots -- 22 board feet

Modern Style:

- Wood, with only a few knots -- 12 board feet

Cross Dowel Style:

- Wood, with only a few knots -- 12 board feet

----- @ 4.50 / bf Subtotal: \$54.00 to \$100.00

2. Hardware, Modern Style:

- Casters -- set of 4 ----- \$20.00
- Chair Braces -- 2 pair ----- \$5.50
- Screws, flat head #8 1.25" -- 1 stand 100 ----- \$3.50
- Screws, flat head #8 1.25" -- 1 stand 100 ----- \$3.50
- Biscuits ---- 1 can ----- \$5.00

3. Hardware, Cross Dowel Style:

- Casters -- set of 4 ----- \$12.50

- brads, 1" finishing -- 1 box ----- \$2.0
- Connector Bolts 2" -- 5 packages of 8 ----- \$20.00
- Cross Dowel Bolts -- 5 packages of 8 ----- \$13.50

----- Subtotal: \$34.00 to \$46.00

4.

5. Finish:

- Stain ----- 1 quart ----- \$7.00
- Polyurethane ----- 1 quart ----- \$12.00

Finish Subtotal: \$19.00

6. Omissions and Contingencies (~10%)

(Tax, sandpaper, etc.) \$11.00

7. Estimate Total Cost \$120 to \$160.00

This is only an estimate (made in Winter 2005). The price may vary in your area. Getting a good price on the wood is the best way to keep the price down.

• Tools

This stand was designed in a small woodshop. It requires the use of a table saw or radial arm saw, drill, and general hand tools.

The cross dowel bolts require a drill of an odd size and a metric allen wrench that you may want to order with their bolts.

The very simple carving can be made with one gouge. The one I use is a 3/16 inch #6 gouge. You also need a small, rounded-edged slip for sharpening it. A simple hand mallet can easily be cut from scrap wood. This is a very easy and fun way to start learning wood carving. Please e-mail me if you would like more information.

• Making the Early American Stand

This stand is made from five wide boards held together with screws, dados, and chair leg braces.

1. Large Flat Boards

The ends and shelves are made from large flat boards. In American Colonial times, boards of this width were common. Today they are not. You may either purchase precluded wood panels, usually made of pine, glue together several boards using biscuits in the edge joints, or cut the boards from plywood and apply an edge trim.

2. Dado Joints

The shelves fit into dado slots in the end boards. The bottom dado does not go all the way to the outside of the leg area. You may wish to make the dados before attaching the extension pieces for the legs. You can make the dados with a table saw, radial arm saw, or router.

Four thin pieces of wood are glued and attached with brads to make the handles stronger and easier to grip.

Four pieces of wood are cut to match the inside of the leg area so that the casters will be installed in to something strong. These pieces have a cut out for the bottom shelf.

3. Modern Style Construction

This design is made completely from .75 inch by 1.5 inch slats. The required lengths are shown in Sketch #6

The ends assemblies are each made from four pieces. You can use any of the joints shown in Figure #5. I recommend Cross Dowel Bolts. It is best to cut the dado slots without hardware installed.

The six Shelf Supports require a lot of dado slots. You can temporarily gang them together and cut them as a group.

The shelf slats have a dado slot in the ends. The two outside slats on each shelf are cut off slightly.

4. Cross Dowel Style Construction

The cross dowel version is made very like the modern version except that the cross dowel bolts are used for all joints. A paddle drill the exact size of the head is first used to make a 1/8" counter sink. A 5/16" hole is then drilled for the bolt shaft, be careful to drill this hole straight. A hole the exact size of the cross dowel not is drilled up from the bottom of the second piece but does not break out the top. The joint is trial fitted and the bolt shaft hole extended into the second piece.

The joint is then trial assembled with the hardware. The joints are glued before final assembly.

5. Assembly

The Early American style is assemble by gluing the shelves into the dado slots. You can use screws from the end and plug the holes if you like. The stand is given diagonal strength by installing four chair braces. One is screwed under two shelves in the middle.

The Modern Version is assemble by making the two end assemblies with glue and hardware. The shelves are assembled with glue and screws or nails in drilled holes. The shelves are glued and screwed to the frame.

The casters come with a plastic or metal sleeve that is installed into a hole in the bottom of the foot.

• Finish

Finish your TV Stand any way you like. I recommend: stain, a spit coat of shellac, and two coats of satin finish polyurethane or modern tung oil.

• Stain

If you are using hardwood, you can stain it. Be sure to wipe excess stain out of the carving with a cloth before it sets.

• Spit Coat

A spit coat made of one part 3-pound shellac to five parts shellac thinner makes a good wood sealer.

• Top Coat

For this TV Stand I like satin finish-polyurethane or a modern tung oil finish such as:

Formby's Tung Oil Finish

Tung oil finishes are applied with a cloth pad rather than a brush. Follow the instructions on the bottle carefully and apply a liberal number of applications on areas that will be handled. I would apply the finish over the painted surfaces also to produce a glazed effect, but try this on scrap first.

Do not let excess finish accumulate in the carving.

