



# How to Make a Bookcase - Part 1

How to Make a bookcase - Part 1.

In this video you will learn how to make a bookcase with three shelves using mortise and tenon joints.

This project will require more time for execution.

The tools you will need are: a Pencil, a ruler, a try square, a marking knife, saws, a marking gauge, a mortise gauge, chisels, a mallet, a hammer, nails, a sandpaper, a brush, a sander and a router.

The materials you will need are: 2 pieces for the side panels of the dimensions 22.5x70x1.8 cms, and 3 pieces for the shelves of the dimensions 22.5x50.5x1.8 cms cms. You will also need adhesive, sealer, and thinner.

This first part of the project is split into the following steps: the side panels and the shelves.

**STEP 1: The Side Panels.**

Place the bottom shelf in position on one of the side panels.

Here, we have set it 5 cms from the edge.

Mark both edges of the shelf on the side panel.

Complete the lines with a try square.

Next, measure and mark the position of the top shelf 10 cms from the opposite edge.

Place the shelf alongside the line, mark its width and draw a line along the mark.

Measure the distances between the two inner lines.

Here, it measures a length of 51 cms.

Mark the center point at 25.5 cms.

Measure the thickness of the shelf.

Here, it measures 1.8 cms.

Draw a line 9 mm to the right and left of the centre point.

Mark a point 1 cm above the line marking the base of the bottom shelf.

Scribe a line along the mark and highlight with a pencil.

Do the same for the remaining two shelves.

These lines will help define the width of the mortises that will join the pieces.

Transfer all the lines onto the 2nd side panel, as shown.

Scribe the lines with a marking knife and highlight them with a pencil.

Set a marking gauge to 3 cms.

Now, from either edge of the side panel, proceed to mark the ends of the mortises that will hold each of the three shelves.

Highlight each with a pencil.

Do the same for the mortises on the second side panel as well.

Use a router to cut out the mortises.

Clean up the mortises using a chisel and a mallet.

Cut out all the mortises on both side panels.

STEP 2: The Shelves.

Place a shelf on the side panel and mark out 1 cm from the width of the mortise for the tenon.

Set a marking gauge to the thickness of the mortise and scribe a line along the edge of the shelf to define the shoulder of the tenon.

Highlight with a pencil.

Measure the depth of the mortise.

Here, it measures 6 mm.

Mark a 6mm point from the edge of the shelf to set the width of the tenon.

Set a marking gauge to the 6mm mark and scribe along the bottom surface of the shelf, as shown, to mark the portion that needs to be removed.

Do the same to mark out all the tenons.

Cut out all the tenons using a router.

Set a marking gauge to the 3 cm distance between the end of the mortise and the edge of the side panel.

Scribe a line from either edge marking the ends of each tenon and highlight with a pencil.

Do this on both surfaces of all three shelves.

Use a try-square to extend the lines.

Clamp the shelf and cut the extra portion from the tenon using a coping saw.

Clean it up with a chisel and a mallet.

Do the same for all the tenons.

For the remaining steps, continue watching How to Make a bookcase part 2.

Watch the Video How to Make a Bookcase part 2.

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