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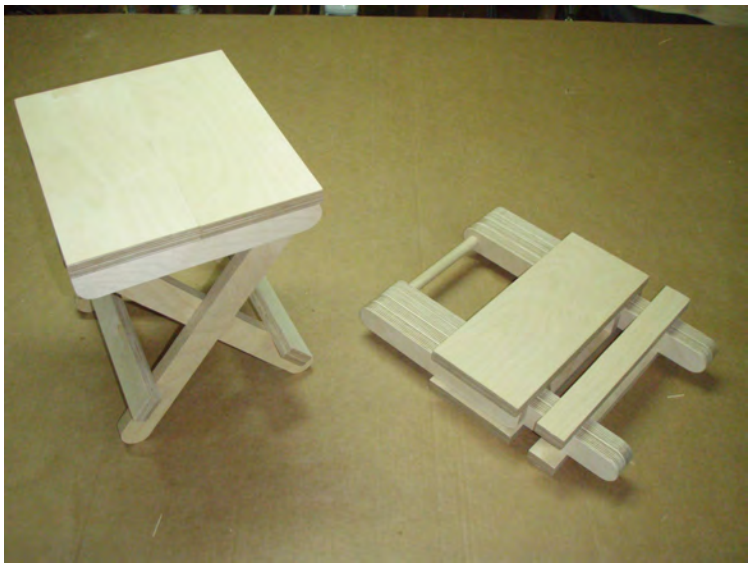
Project: Scissor Stool

Overview: This stool folds flat for storage and carrying around. The dimensions of it can be increased or decreased to make this a stool, table, foot rest, etc.



Materials: This file is written for .70 thick Baltic birch plywood. To modify the file for thicker wood simply increase the width of the pockets. 5/8" dowel. One 8.5" long; two 1 1/16" long and two 7/8" long"

Minimum Cutting Area: 25" x 26"

Bit Size: 1/4"

Finishing: If the stool is going to be kept indoors simply rub all the pieces with a Minwax WipeOn Poly before assembling the stool. If it is going to go outdoors use Minwax SparUrathane and coat all pieces before assembly.

Always read the entire project details before starting to cut the file yourself
Account for the thickness of the physical material on hand and the material thickness in the file
This file is zeroed to the tables surface, Zero your bit to the tables surface

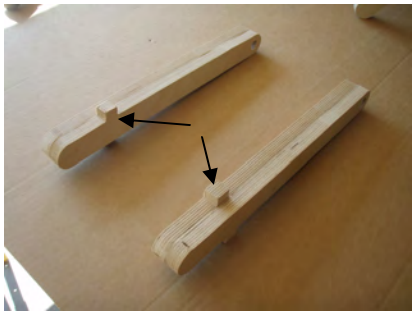
As the file starts cutting the profile of the parts make sure the cut is going all the way through the work piece and into the table surface. If you need to adjust any part of the file make sure you do not remove the hold down or you will loose position.

Once the file is complete, flip the work piece over and cut the tabs with a utility knife. If you try to push them out by hand it could lead to tearing out on the wood and take away from the projects appearance.

Sand off the remaining parts of the tab. This is also a good time to sand all the corners of the parts so they are not sharp to the touch. Also it is recommended to apply finish to this project at this point before assembly. When the project is assembled it is difficult to get all of the areas.

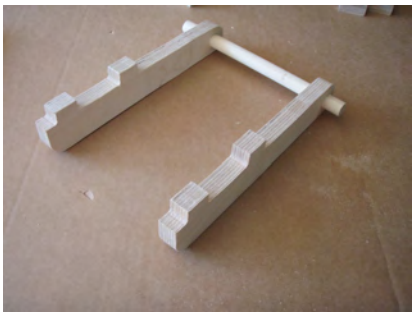
Layout the 4 legs to match the picture above. Also lay out the two “shortest” dowels that are supplied with the kit.

Insert one dowel on the leg to the farthest to the left. Then insert the other dowel to the leg furthest to the right. At this point flip the inner legs out onto the leg that has the dowel already installed.

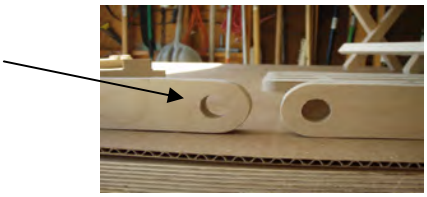


Using pressure by your hand or the assistance of a rubber mallet knock the legs together. Make sure they look like the ones in the picture above. (Note: the tenons are sticking up on the inner legs.

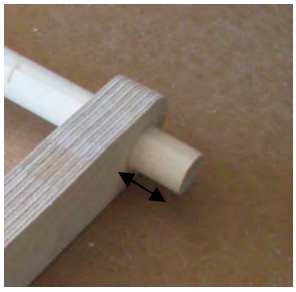
Move over to the top supports and prepare them to attach to the legs.



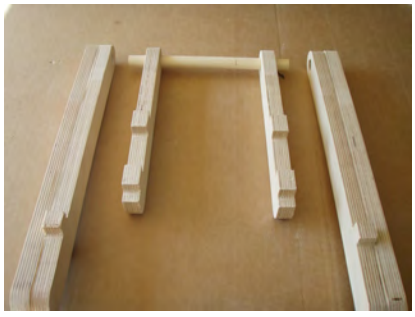
For this step the two top supports and the long dowel are needed. Simply stick the dowel through each support so it looks like the above picture. The dowel should be sticking past the leg support approximately the thickness of the plywood.



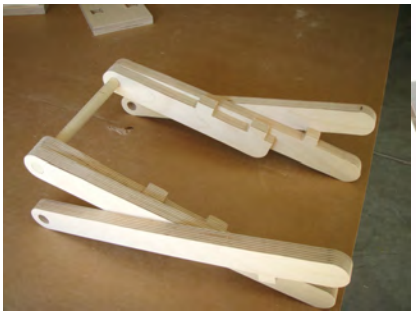
Double check you are using the top support that has the hole going all the way through the piece.



The distance between arrowheads should be just a little less than the thickness of the plywood.

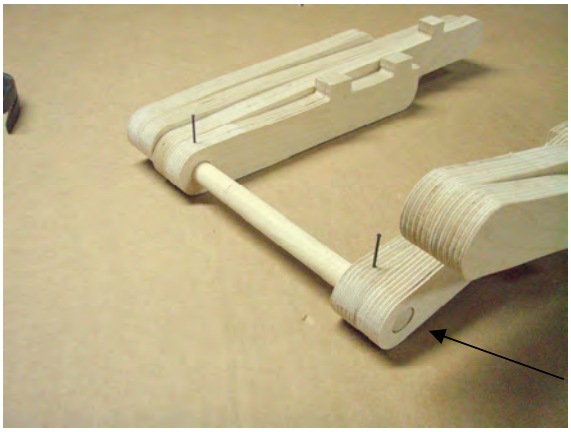


Set the supports in between the leg assemblies that were previously made.

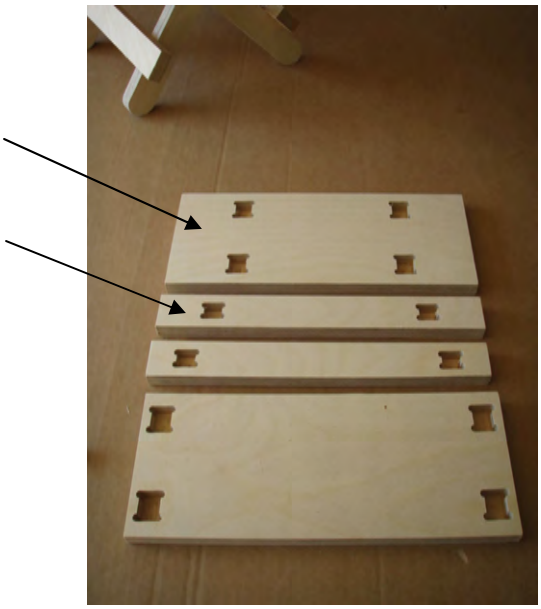


Push the leg assemblies into each side of the center top supports. Keep in mind if you push to far the center dowel will go through all of the legs. Remember the step above about having the dowel only stick out the thickness of the plywood. At this point make sure the long dowel is flush with the inner leg. (see above arrow in right picture)

A finish nail needs to be added to this project. This will keep the long dowel from moving left or right in the assembly. Simply center the nail across the thickness of the inner top support and center the nail over the dowel and hammer it into the wood. The picture to the right shows the proper layout of the nail location. Please reference the video assembly for further demonstration.

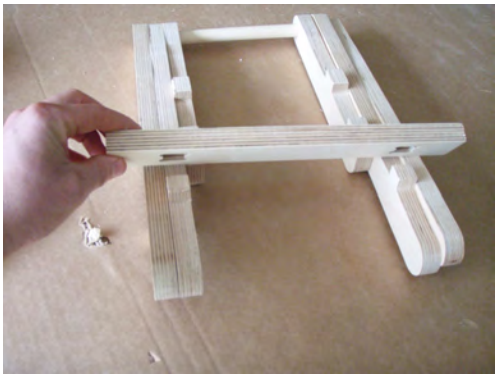


Make sure this dowel is not sticking out past the leg.

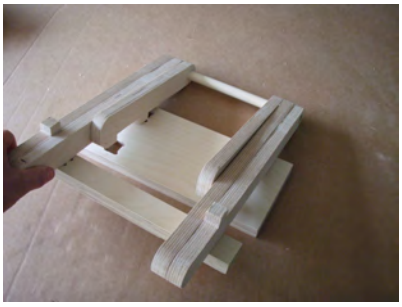


For the next step you are going to need to select the top and leg support that have the holes the farthest from the end. It is a helpful tool to setup the pieces like the picture on the left. Then from this point select the two pieces that have their holes the farthest from their edges.

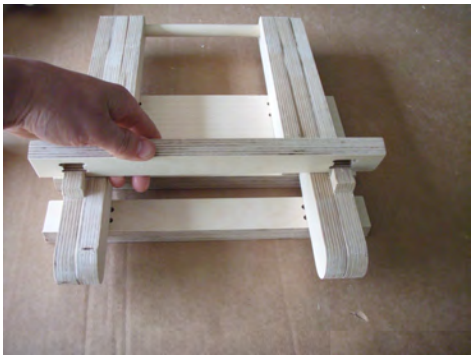
Yellow wood glue is easily found at any local hardware store. Put enough in each hole to cover the bottom and then rub your finger around in the hole to cover all of the edges.



Take the leg support and push it onto the tenons that are pictured to the left. A rubber mallet might be needed to snug the leg support down onto the leg. Throughout the rest of this project keep a lookout for running glue. If glue starts running across your wood take a wet paper towel and wipe it off.

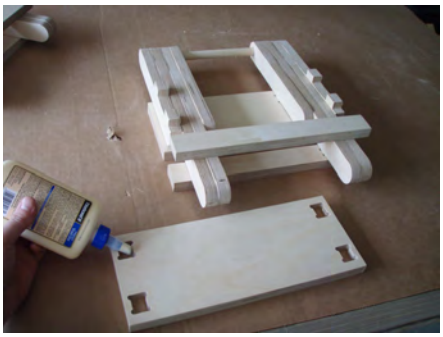

Now take the glue and put the proper amount in each of the holes for the table top. Make sure you take your finger and rub it on the edges of the hole to help obtain a stronger glue joint. Now take the legs and flip them onto the table top. It is easier this way, as you can see from the picture on the right you can use a rubber mallet and push the tenons down into the table top. Double check for any glue drips and rub them off with a wet paper towel. At this point leave this assembly alone and let the glue set up for a minimum of 15 minutes. Do not flip over the assembly, the glue will drip out of the joint.

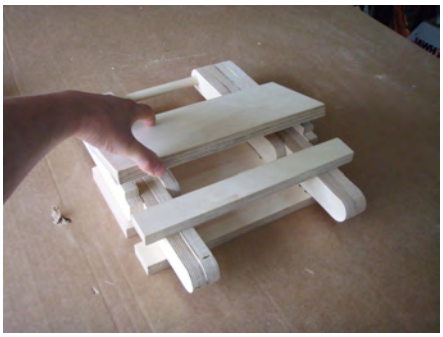
After the glue has had its time to setup you can flip the assembly over and glue the other leg support in place. Remember you do not want to fill the holes with glue, just enough to cover the bottom and rub some around on the hole edges. Use the rubber mallet to snug the joints together.

Using the rubber mallet firmly press the two remaining dowels into the two remaining top supports.

Install the remaining top supports onto the stool assembly. Make sure the tenons are facing up.



Just like the other table top, put enough glue into each hole and rub your finger around to spread it on all of the sides.



The last piece may fit snug, at this point carefully align the holes over the tenons.

Lightly tap all four corners of the table top until the top falls into place. At this point check the project to make sure everything is pushed completely together.

The last step is to flip the entire stool over. This will put the pieces just glued on the bottom of the project and allow the glue to setup and not drip out of its joint. Give the glue at least 15 minutes to setup before moving. WAIT 24 HOURS FROM NOW BEFORE USING THE STOOL. That is how long it takes the glue to fully cure.

Folding the Stool:

Set the stoop upright on a flat surface.

Grab the edge of each table top and lift up.

Lift the table tops straight up.

The table tops need to be lifted above 90 degrees from the stool, as shown above.

Push in and the tops will hinge together.

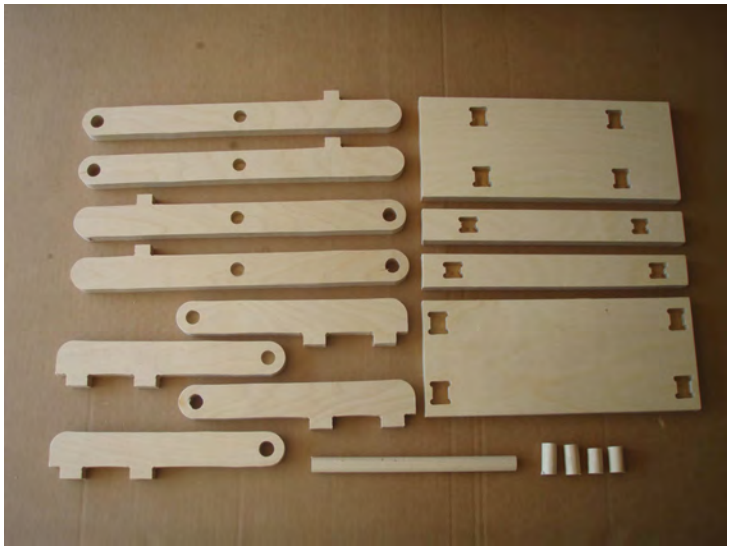
Push the tops towards each other until they hit.

Align stool and check to make sure everything is pressed together and the glue held.

Congratulations!! You have a new folding stool, now show it to your friends and be proud of your work!!!

A walnut version of the stool is pictured to the left. The dowels are shown here to accent the light wood and dark wood, the file can be modified to do this. However, must people keep all of the dowels hidden no matter what type of wood they use.

Try doubling the size of the materials to make a folding end table or even go larger to make a folding full size table.



Scissor Stool PartWorks
Scissor Stool Cut File