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Project: Adjusta Lamp

Overview: Construct a lamp that has different vertical heights to accommodate a lamp in different environments. A good project for following steps in order to properly assemble.

Materials: Red Oak

Minimum Cutting Area: .375" thick
20"x20" and a .75" thick 10" x 41"

Bit Size: 1/4"

Finishing: Watco stains will add color to the red oak. Make sure to add a polyurethane over the stain to protect the wood. Follow manufactures directions for specific applications.



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.



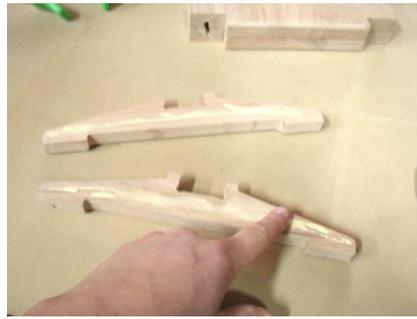
Included with the cut file is a hold down toolpath that shows where it is safe to put screws. Run this file separately from the cut file so you can screw down the work piece, or if you have a different size board or different type of hold down disregard the file.



Tab are use to hold all the pieces to the scrap wood attached to them. Use a utility knife to score these edges. Never try to push a piece out without cutting the tab, it will tear the grain on your project. Sand remaining tab flat.



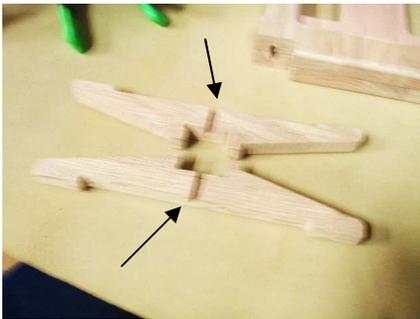
Once the parts have been cut take some time to sand all the edges and faces thoroughly. A routed edge on the outer edges will add some character to the project.



Start by gluing up the feet, that way they can sit aside and the glue can setup while you work on other parts.



Spring clamps have enough pressure to keep the parts held together. Make sure the pieces are as flush as possible with each other to cut down on sanding time after the glue is set.



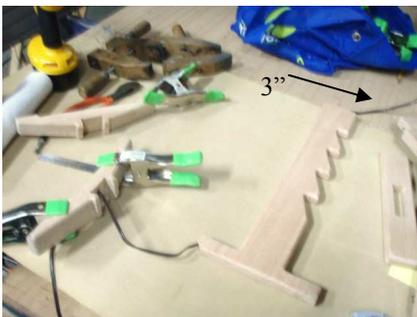
Make sure you have the two feet with the grooves in them and glue them together just like the other foot.



Lamp kits are available and your local hardware store, Lowe's, Home Depot, Wal-Mart. They have everything needed to wire up a complete lamp. The cost on these is approximately \$10 depending on your area.



Run the lamp cord through the ratchet pieces. Make sure to spread the glue evenly on both faces. Before applying clamps make sure you look at the next step.



Since one end of the cord comes installed, make sure you run the cord through the foot with the groove. Also make sure there is approximately 3: of cord at the top of the part.



Try to wipe off any excess glue that has squeezed out. Allow glue to setup for at least an hour before removing clamps.



Sand the new glue up to make sure everything lines up and is smooth.



Use the next few pictures to see how the main assembly is glued up. It is the same process as how the ratchet piece was assembled. Above the leg is pushed into place with a rubber mallet.



Secure the top by pushing the ratchet inside this piece and pushing down onto the columns.



The inner ratchet should move freely inside this assembly. If it does not something is wrong. That is why it is always recommended to do a dry fit before applying glue.



The hole that comes in the file is left small on purpose. Certain lamps may call for different size nipples to be used in their kit assembly.



Using a hand drill make the hole just smaller than the diameter of the threaded nipple. This way one can screw the nipple into the wood and use a little epoxy if necessary to hold in place.



Apply glue to the underside of the top piece and slide it into place.



Once everything has had a chance to dry, recheck all your sanding edges. Then apply a stain to give the wood some color followed by several coats of polyurethane to seal the wood.



Follow the instructions that come with your particular lamp kit. That is the only way to know how to properly install the electrical components.



110volts of electricity is going to be running through this project, so improper installation can cause failure to the project and even result in a fire.



The last step is installing the ratchet lock. Oak dowels can be found at your local hardware store to match your project, or stay with the standard poplar lighter colored ones if you desire.



Install one side and flush the the dowel with the lock. Your particular dowel length can be measured by using the thicknesses of your parts.



Push the other end onto the dowel and flush that end as well.



Make sure the ratchet lock is positioned like it is in the picture before inserting the second dowel. Failure to do so will prevent the lock from working properly.



Using a small pin nailer plug a couple pins into the dowels to keep them from falling out. If no pin nailer just dab a little glue in the hole and it will hold just fine.



As one ratchets the lamp up and down the cord will pop out under the ratchet. Simply pull the cord back out by pulling down and off the side with the cord and it will pull back in.

The Adjusta Lamp is a great project for following directions or assembly will not go so smooth. It is a great lamp to have in any home due to its multilevel height settings. Any material will work, also try increasing the length of this project, maybe to even floor lamp heights???

