

# SCROLLSAW WORKSHOP

WWW.SCROLLSAWWORKSHOP.BLOGSPOT.COM

## Digital Patterns

Designed by Steve Good



Hundreds of free Patterns  
Stencil Printer  
Jigsaw Puzzle Templates  
DVD's  
Key Chain Pattern Printer  
Video Tutorials  
Reviews  
Community Forum and more.

If you would like  
to donate click  
here. No Paypal  
account needed.



Note to commercial print employees: I give my permission to print as many of this pattern book as your customer requires.

steve@stevedgood.com

Copyright Steve Good 2020



## General Pattern Information

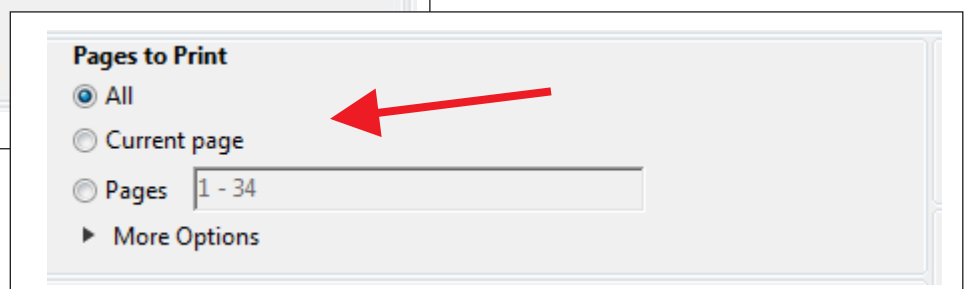
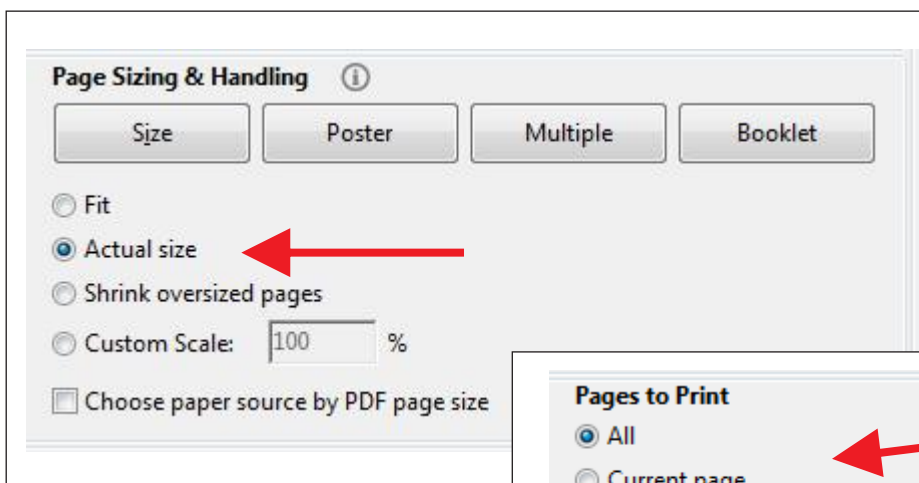
You may use this pattern to make as many of the project as you like. You are free to use any technique including mass production to build the project. The pattern may be copied and given to others provided the entire book is kept intact. You may not sell the pattern or include it in another commercial package of any type.

Steve Good retains the right to the pattern. If you have any questions about the use of this pattern please contact me at [steve@stevedgood.com](mailto:steve@stevedgood.com)

When printing this pattern it is important to print it full size. When you bring up the print dialog box look in the “Page Sizing & Handling” section. Make sure the “Actual Size” is selected before you hit print.

You also only need to print the page/s you need. After the print dialog opens look for the “Pages to Print” section. You can print the current page or a range of pages. This will help save ink by not printing the title/instruction pages.

## Printing Instructions



# Sand Timer









**CAUTION: Wear Eye Protection or don't do the project.**

I used a Dremel tool with a cutoff wheel to remove the bottom third of the base. Cut as straight as possible. You can not follow the threads.





Hold the glass bulb with a towel in case it breaks.

Check to see if the bulb sits flat.





If the bulb does not sit flat the use sandpaper on a flat surface to make it flat and level.

Repeat the process on a second bulb and make sure they are both flat and fit together straight.





It's time to test the flow of the sand. The hole you drill will depend on the sand you buy. I purchased a very fine sand from Michaels Crafts. You may have to make a few of the wooden plugs with different diameter holes before you get the flow you need.

Tape the plug in place and you are ready to test.





Start your stopwatch and the sand timer at the same time. When the stop watch hits the mark you want then stop the flow of sand. How ever much sand that made it to the bottom is the amount needed for that time. Discard the extra sand that was left in the top bulb.

If the flow was too slow or too fast you need to change the size of the wooden plug hole and retest.

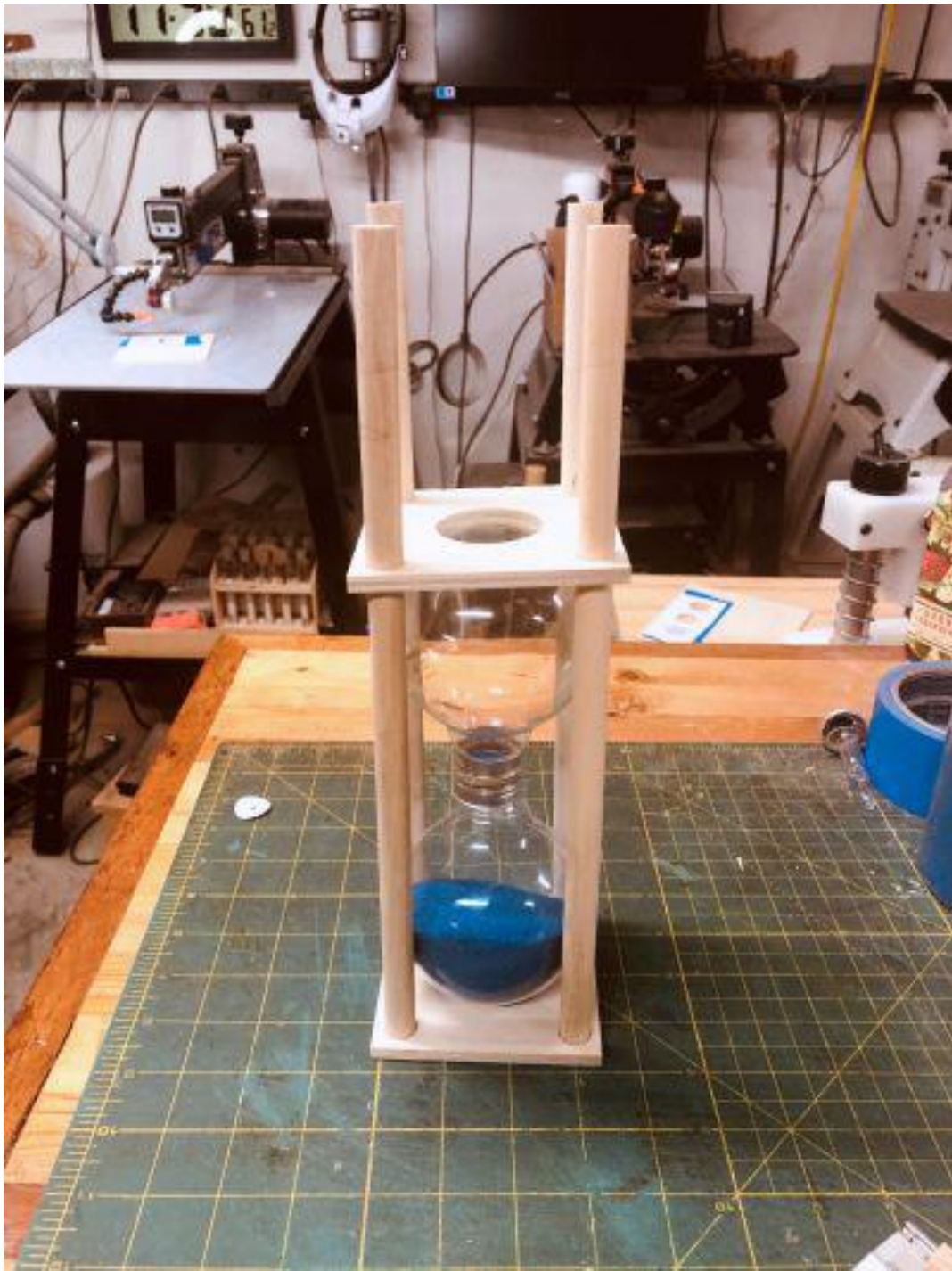
I added enough sand for a five minute timer.



Once testing is complete it is time to glue the bulbs together. Use CA glue and activator to apply the wooden plug to the first bulb.

Use enough glue to make sure there are no leaks.  
Glue the second bulb to the wooden plug.





Capture the glass bulbs between the interior top and bottom.

Insert 1/2" wooden dowels and mark their length so you can cut them. Make sure the top and bottom are level before you mark the dowels.



Insert the wooden dowels in the top and bottom holders. You can cut and sand them to the exact length after they are glued in place. At this point just make sure everything is straight.

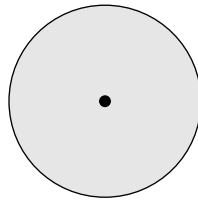
Glue both the top and bottom.



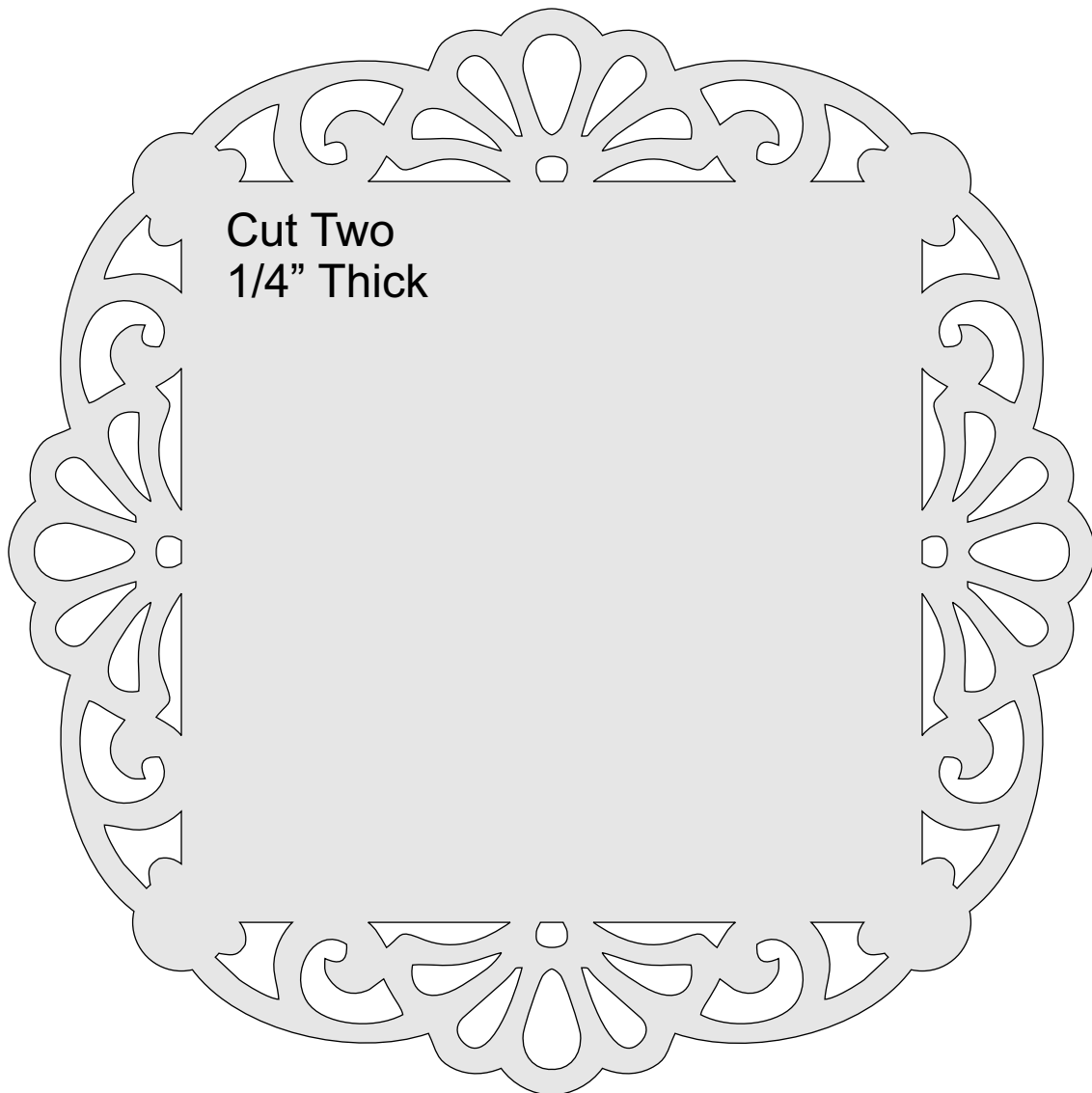
I used leather to cover the screws of the bulbs. You can use whatever you have. Just cut it to length and width and CA glue it around the screws.

Most of the step of this project will require you to adapt to the materials you use. The size of the bulb. The size of the sand, and the accuracy of your assemble will change things. Adjust as you go.

Wooden plug. This may need to be adjusted depending on the bulb you use. The center hole will depend on the sand you buy. See the instructions for details.

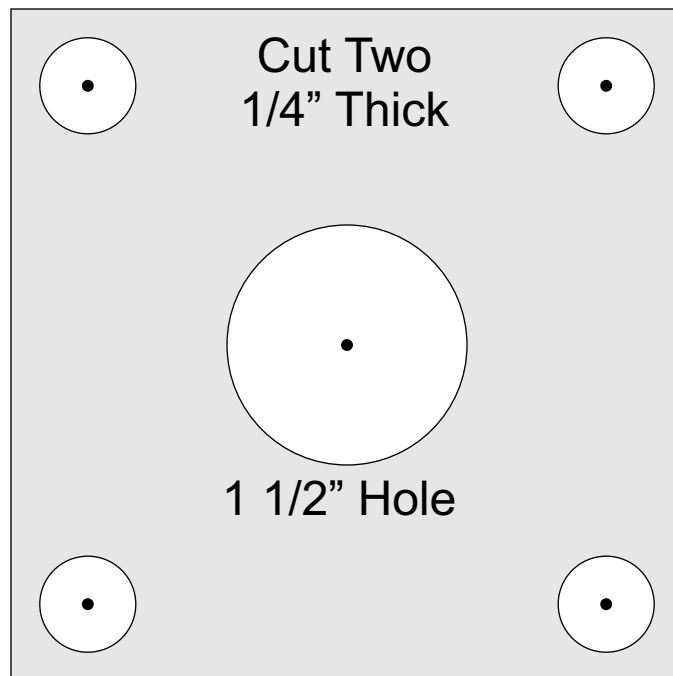


1/8" Thick



Cut Two  
1/4" Thick

1/2" Holes in the corners.



Center hole may need to be adjusted to fit the bulb you use. If the bulb sticks through to the other side the hole is too large.