Laser Cut Candle Holders

by **amandaghassaei** on May 14, 2012

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Intro: Laser Cut Candle Holders

Inspired by those awesome Moroccan cutout lanterns, I made a set of three laser cut candle holders, perfect for small votive candles or tea lights. All the laser cutting for the project was done at TechShop SF .
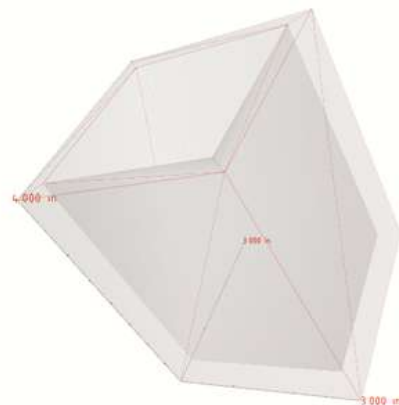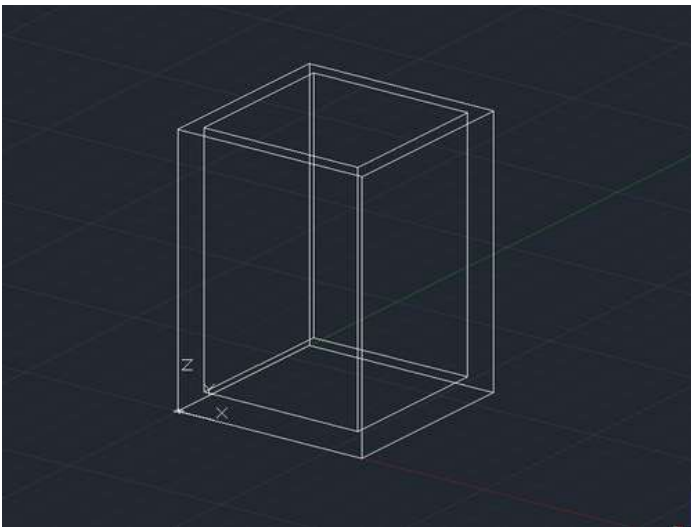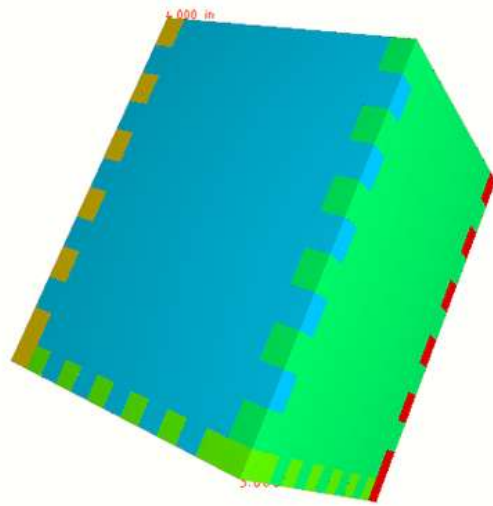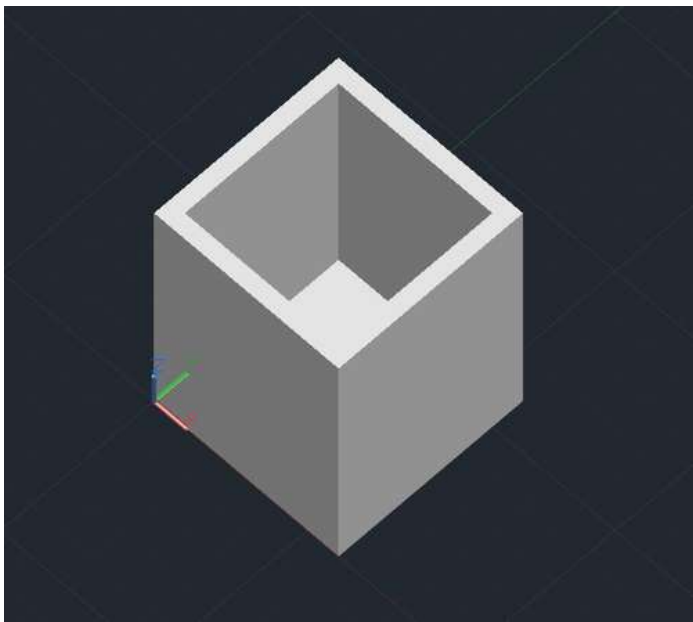

Step 1: 3D Modeling

I modeled the candle holders in AutoCAD by drawing two boxes and subtracting the inner volume from the outer box. I exported this shape from AutoCAD as a single stl file. I've attached the dwg and stl files below, the candle holder measures 3"x3" and 4" tall.

I imported the stl file into 123D Make, a free app that lets you prepare your 3d files for laser cutting. I'm using a new preview version of 123D Make that is not available to the public yet, so I had a lot of control over the type of joints to use for my candle holders. The public version of 123D Make will be getting regular updates in the coming moths, so hopefully you will be able to use these features soon too!

In 123D Make, I set the joint type to finger joint with 11 fingers for each joint. I specified the dimensions of my material and 123D Make created 2D vector files with the correct finger size and fit them onto sheets for laser cutting.

File Downloads

candle holder.dwg (818 KB)
[NOTE: When saving, if you see .tmp as the file ext, rename it to 'candle holder.dwg']
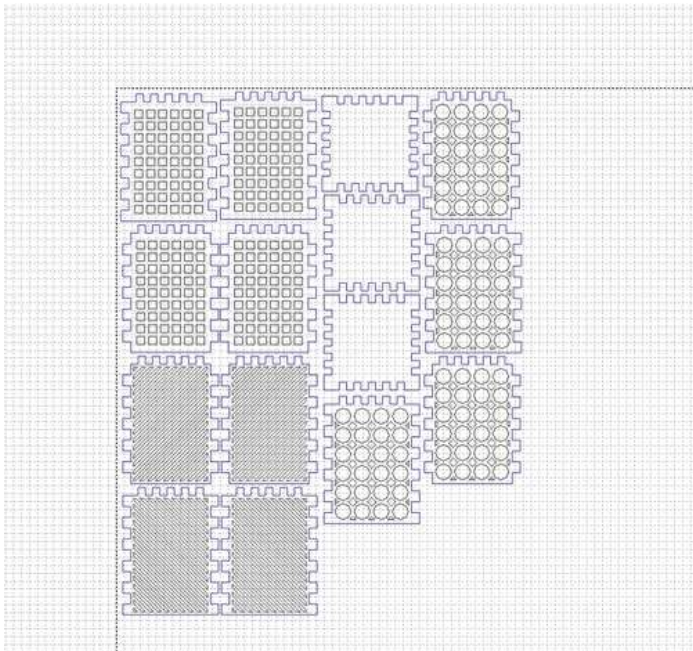

candle holder.stl (1 KB)
[NOTE: When saving, if you see .tmp as the file ext, rename it to 'candle holder.stl']

Step 2: Adding Cut-Out Patterns

I imported the eps files from 123D Make into Corel Draw and drew in some patterns on the four walls of the candle holders. I made the cut-outs fairly detailed, I'm hoping they will cast some interesting shadows. The image above shows the final file I sent to the laser cutter (I've also attached this below).

File Downloads

candle holder with cutouts.cdr (91 KB)
[NOTE: When saving, if you see .tmp as the file ext, rename it to 'candle holder with cutouts.cdr']

Step 3: Laser Cutting

I cut out my parts on an Epilog120 laser cutter at TechShop SF. If you do not have access to a laser cutter, consider using an online fabrication service like Ponoko .

Step 4: Assembly

I glued the pieces of the three candle holders together with wood glue. I bought three small votive candles from a local Walgreens, lit them and carefully placed them in the holders... and that's it! Please, remember that wood (especially laser cut wood) is flammable. If you decide to make something like this, never leave the flame unattended.

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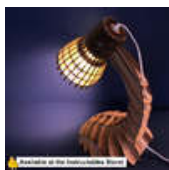

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Comments

3 comments **Add Comment**

sshpak says:
yea.. it is sooo easy.. (especially if you have laser cutter)

May 16, 2012. 9:50 AM **REPLY**

randofo says:
You can use an online service like ponoko.com if you don't have a laser cutter.

May 16, 2012. 10:06 AM **REPLY**

Penolopy Bulnick says:
I didn't know you made these! So awesome!

May 16, 2012. 9:30 AM **REPLY**