

File Setup Instructions

Please use the lasercutter-template.ait template to setup files to cut. The template is available for download at our Resource Site:

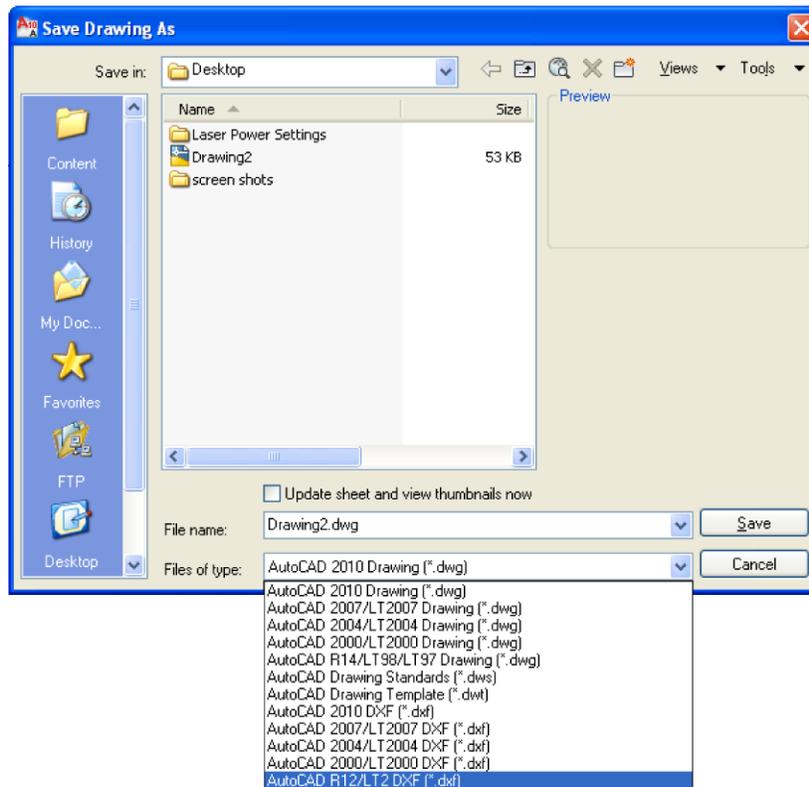
<http://www.design.iastate.edu/LABS/lasercutter/>

Note: All files must be setup prior to your session. This will help you make the best use of your time on the cutter. If you are using AutoCAD to create the objects, use the following instructions to convert the file to a format that can be used in Illustrator. If you are using Illustrator to setup your file, skip to step 11.

AutoCAD

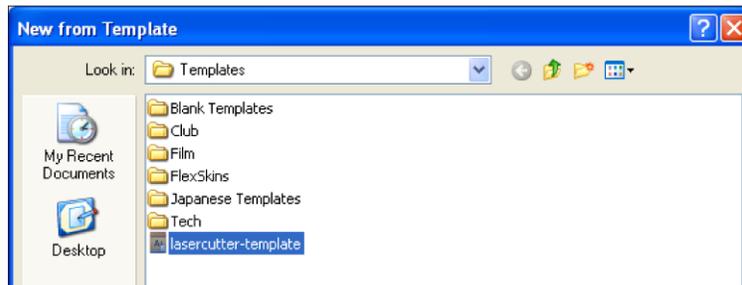
For best results, work using 1:1 scale in AutoCAD. This is the simplest method of getting your file into a format that Illustrator can use, and ensuring that the objects are cut to the correct size. This method will also preserve line colors set in AutoCAD.

1. Open your AutoCAD file. Select “Save as... > Other formats” from the AutoCAD menu.
2. Set the file type to “AutoCAD R12/LT2 DXF”, and click **SAVE**.

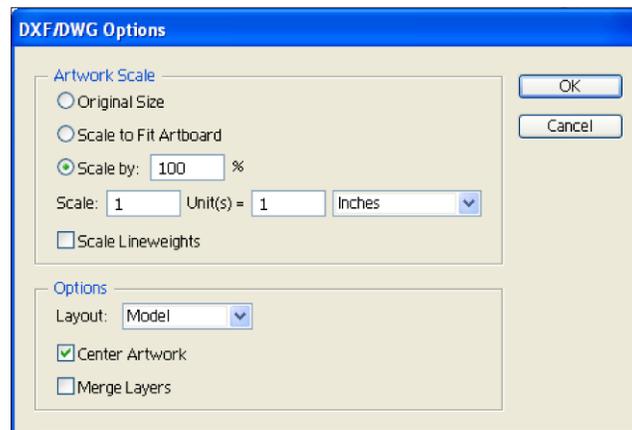


3. If you get a Version Conflict error, click the **CLOSE** button. This has no effect on the file you just saved.
4. Repeat the process for each file that you need to cut.
5. Close AutoCAD, clicking the **NO** button on the dialog asking if you want to resave the file as an AutoCAD drawing.

- Open Illustrator, then chose "New from template" from the FILE menu. Chose *lascutter-template.ait* from the list.



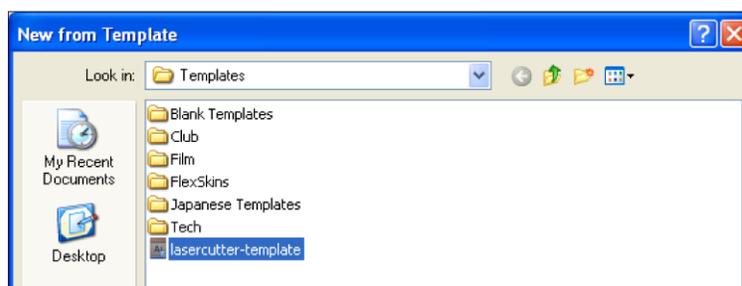
- Go to the FILE menu and choose "Place". Select your DXF file, and click the "Place" button.
- The DXF/DWG Options dialog will appear. In the "Artwork Size" section, select "Scale", and set the scale to "1 units to 1 inches". You can also choose a layout from your document to use, or just use model space.



- Click *OK*.
- Go to step 14.

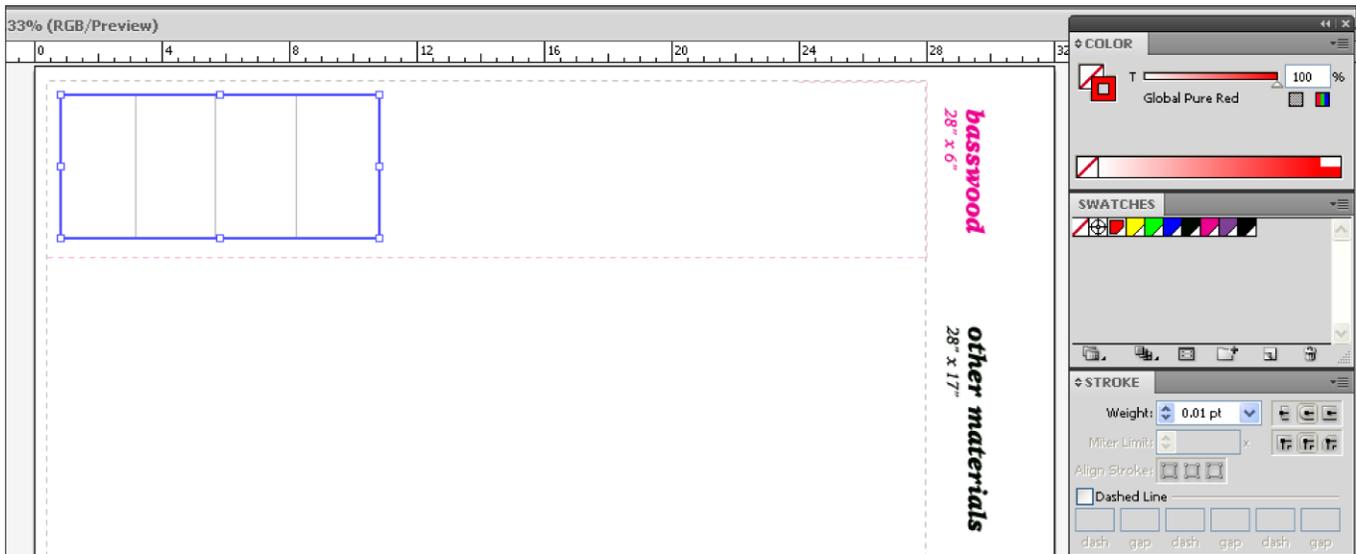
Using Illustrator

- Open Illustrator, then chose *New from template* from the File menu. Chose *lascutter-template.ait* from the list. You can either work directly in this file, saving as you go, or you can work in a separate file, and copy items into the template when finished.

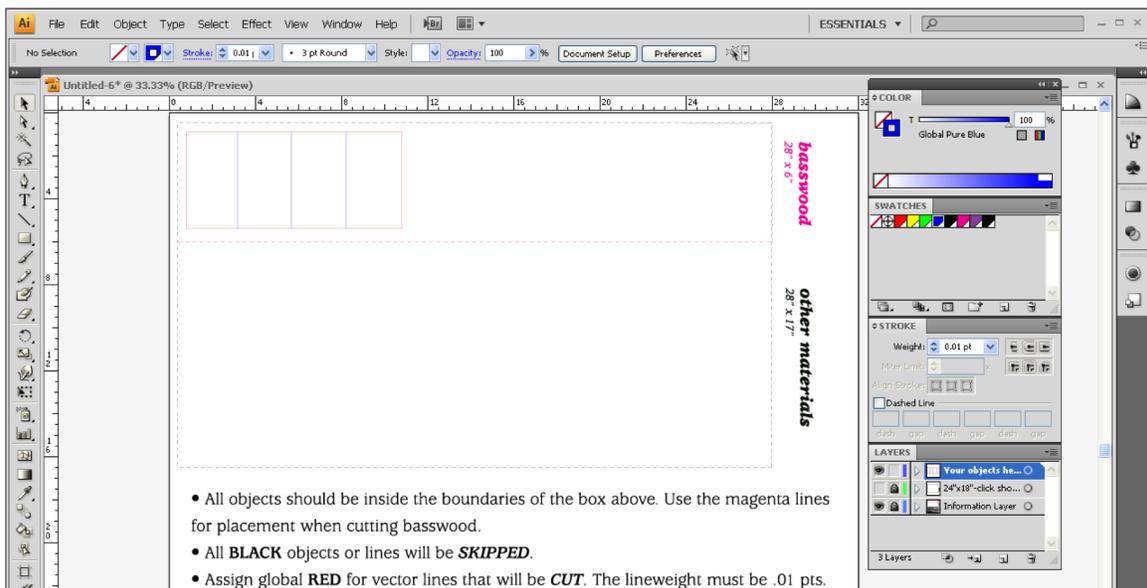


- Open your working file. Select everything that you wish to cut or engrave, and select *Copy* from the *Edit* menu.
- Switch to the template. Select *Paste* from the *Edit* menu.
- Your objects should appear in the template window.
- The template has basic instructions for color assignment and line weight values for each of the types of cutting or engraving available. Color swatches have been set up for your convenience.

16. Move your objects to the top left-hand corner of the template, using the rectangles as guides. The magenta rectangle indicates the size of the basswood available from the labs. The black rectangle shows the size of all of our other materials. Make sure any objects you wish to cut or engrave are within this window. Use the rulers to position items as needed.
17. Set lines to be cut to Global Red, with a line weight of .01 pts.



18. Set lines to be vector engraved to Global Yellow, with a line weight of .01 pts.
19. Set lines or objects to be raster engraved to Global Green, with a minimum line weight of .75 pts. Raster engraving should be used sparingly, as it takes significantly longer than cutting or vector engraving.
20. Set lines to be scored to Global Blue, with a line weight of .01 pts. This is useful for scoring chipboard or cardboard in preparation for bending.



21. All other line colors are ignored by default.
22. Save your file. For organizational purposes, you may want to have a separate file for each sheet of material you plan to cut.