

Digital Media and Fabrication Lab:

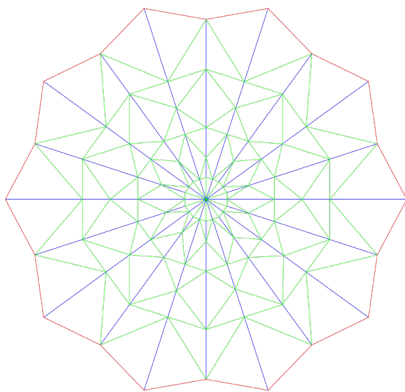
Creating Dashed Lines for Laser Cutting

Creating dashed lines for laser cutting can be useful for methods of representation as well as scoring materials for folding.

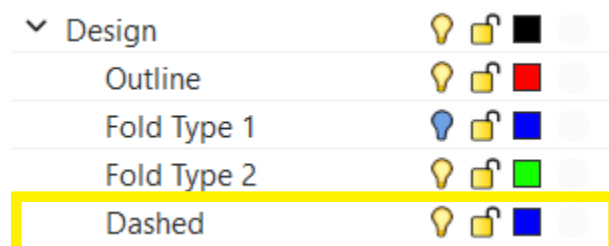
There are two main methods of creating dashed lines for use on the laser cutter. Simply changing the line type to dashed will only change the appearance of the line but will not actually create individual dashed lines.

Method 1: Rhino

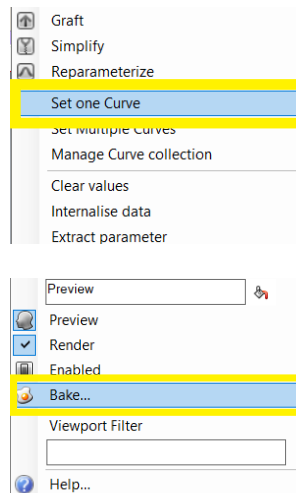
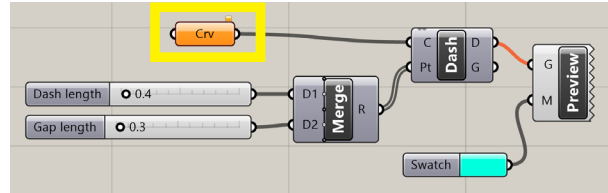
Create your linework in Rhino. Remember that the laser cutter only reads the three primary colors (true red, green, and blue). Review the laser cutter guide for more information on this.



It is a good convention to set your layers in Rhino ahead of moving to illustrator. This includes making a new layer called 'dashed' where you can place your new dashed lines.

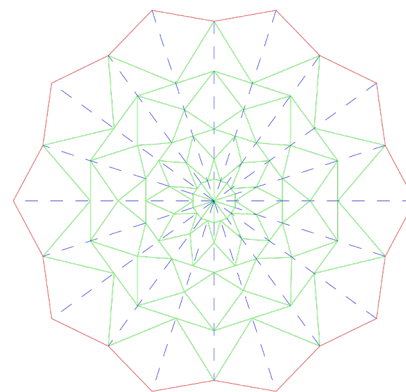


To dash these lines, you will use a grasshopper script similar to the one seen. You can also download this script [here](#).



Right click on the Crv command and select the curves in your linework that you want to dash. You can adjust the dash length and gap length in the grasshopper script settings. Then Bake your new dashed lines to Rhino.

Your new baked dashed lines will appear in rhino in the layer you designate. You can confirm that these are true dashed lines by selecting them and only the dashes you select should highlight. Your linework is now ready to export to illustrator and send to the laser cutter.



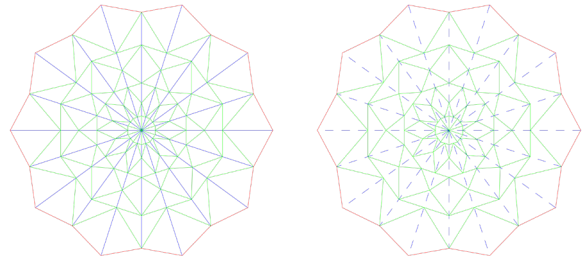
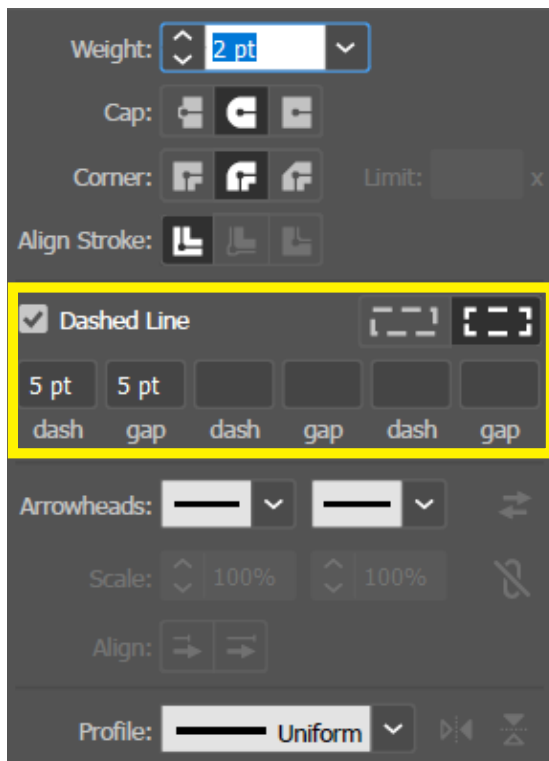
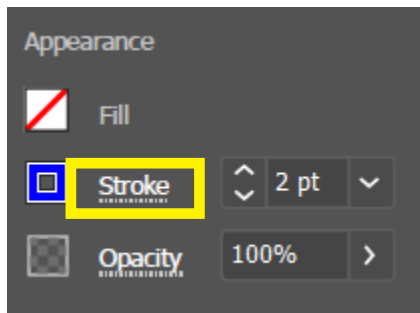
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Method 2: Illustrator

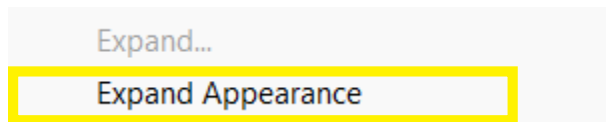
If you have already moved your linework into Illustrator there is a way to make dashed lines here as well. However, the process, can be imperfect.

In *Properties*, select *Stroke* and edit the *Dashed Line* settings until they appear how you want them.

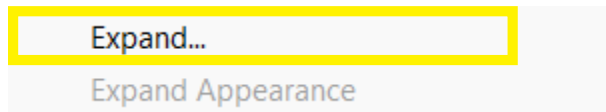


At this point you will see dashed lines in your linework, however, they only appear dashed and if sent to the laser cutter they would still be considered solid lines.

Next, in the menu select *Object* and *Expand Appearance*.



Then select *Object* again and *Expand*



In the *Expand* menu, select *Fill* and hit *Ok*. This should separate the dashes into individual lines. However the line it still may still select as a group. It is best to test this method first before using it on your final product.

