







Jewelry Make and Take

Basic Tools

-  Selection - Select, move or scale an object.
 -  Edit paths by nodes - Edit paths by dragging their nodes, or node handles.
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-  Rectangles and Squares
 -  Circles, ellipses, and arcs
 -  Stars and polygons
- Shape tools - Click and drag to create shapes. If you want it to be an exact size, you can use the selection tool to select it and type in the exact sizes in the width and height boxes at the top.
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-  Create and edit text objects.

Useful Inkscape Shortcuts

(you can also hover over a tool and it will show you the shortcut.)

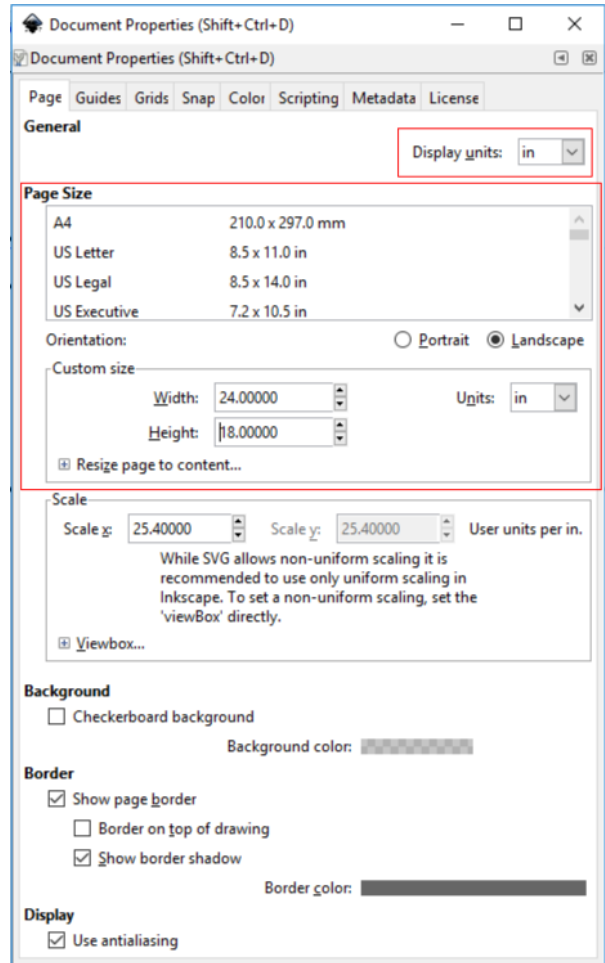
- Ctrl S (Save)
- Shift Ctrl S (save as)
- Ctrl Z (undo)
- Shift Ctrl Z (redo)
- Ctrl C (copy)
- Ctrl V (paste)
- Ctrl D (duplicate)
- Ctrl G (group items together)
- Ctrl U (ungroup items)
- Ctrl A (select all in current layer)
- Alt Click (select something that is underneath an object)
- +, - (zoom in and out)
- Space Bar, Click and Drag (allows you to move screen around while moving mouse)
- Ctrl+R (hide/unhide rulers)
- F1 (selection tool)
- F2 (edit paths by nodes)
- Ctrl drag (draw shape fixed to ratio. eg: squares, circles)
- Shift drag (draw shape from the center)

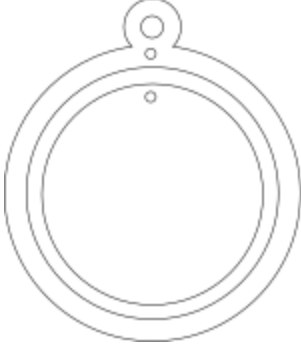
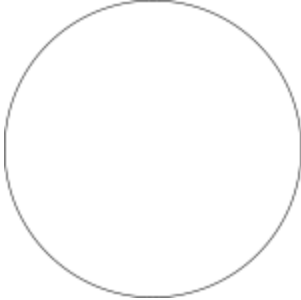
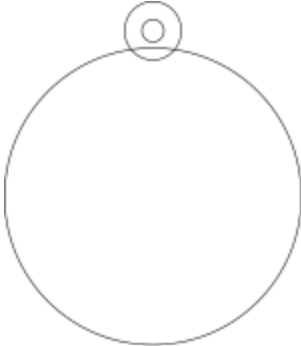
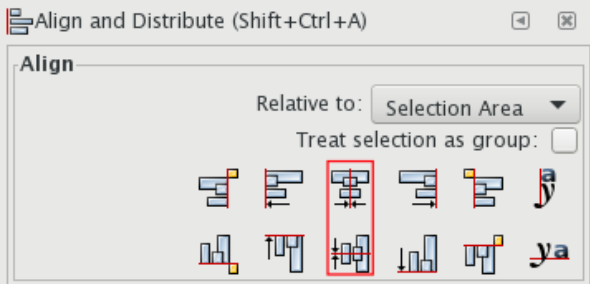
1. Open Inkscape



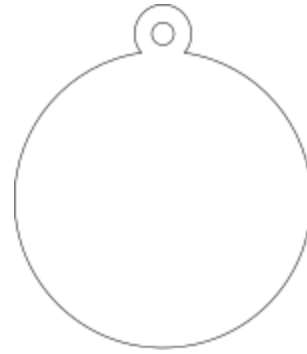
2. Go to File > Document Properties







- a. Next go to Display Units, click on the drop down menu and select the unit of measurement that you are most comfortable with.
- b. Change the page size to the size of material you will be using. If you are unsure, you can just set it to the size of the bed on the laser cutter (24x18 in.)



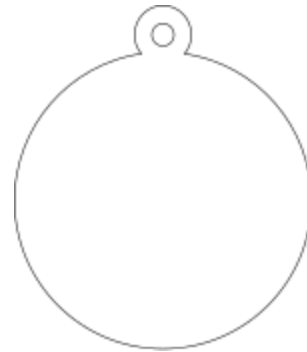
<p>3. Determine what shape you would like your earrings to be. You may have one solid piece or multiple pieces that attach. To the right, you can see the finished design of the example.</p>	
<p>4. Start with the outside of your design first by drawing a shape. Remember that you can hold the control key while drawing a shape to get fixed ratios (eg: perfect squares or circles.)</p>	
<p>5. We will have to create a hole to attach the earring to the earwire. If you are going to have multiple pieces, you will have to create holes for those to attach.</p> <ol style="list-style-type: none"> In the example, I drew an extra piece that extends from the top. Then I drew another circle for the hole. To make sure the shapes are lined up, you can use the align panel. This is located in the toolbar to the right. Selected the two smaller circles (hold shift when selecting the second shape) and click align for the vertical and horizontal axis. After that hold shift and select the larger shape. Then align it vertically. 	 







- c. To merge shapes together you must select both shapes. Once you have both shapes selected, you can go to Path > Union. This will merge the shapes together.



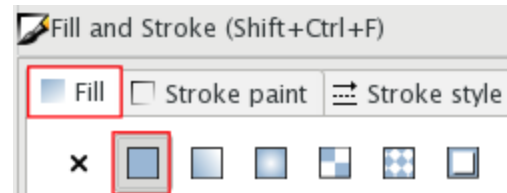
Path	Text	Filters	Extensions	Help
	Object to Path			Shift+Ctrl+C
	Stroke to Path			Ctrl+Alt+C
	Trace Bitmap...			Shift+Alt+B
	Trace Pixel Art...			
	Union			Ctrl++
	Difference			Ctrl+-

- d. To subtract shapes from one another, you can select them both and go to Path > Difference. (The shape that you want to stay has to be on the bottom)

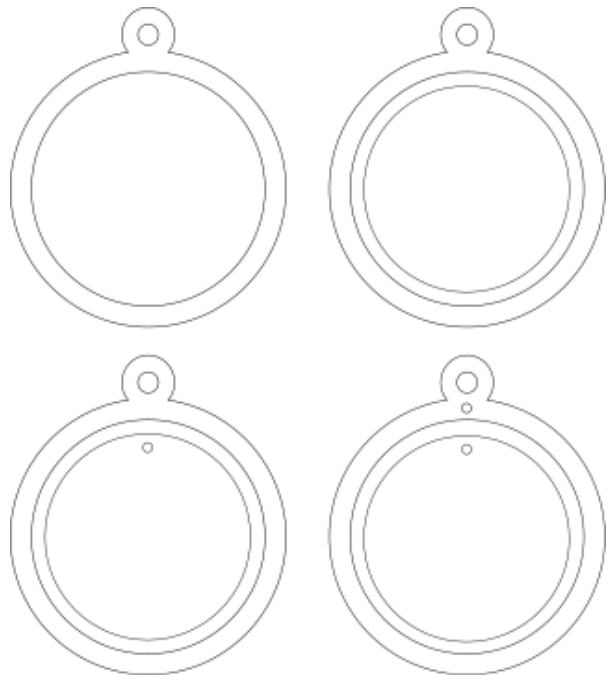


Path	Text	Filters	Extensions	Help
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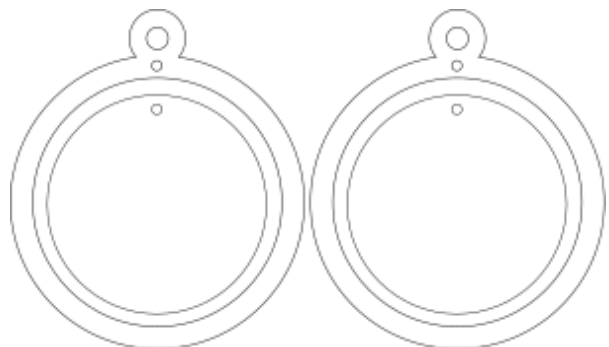
- e. Sometimes it is good to fill your shape. Then you can see that the shape was subtracted. To do this go to the fill and strokes panel. This is located in the toolbar to the right. Under the Fill tab, select flat color.



6. After you use difference function on a shape you cannot use it again on that same shape. You will have to select the shapes and go to Path > Combine.
7. If you have multiple pieces, continue to draw them until the design is finished.
8. Next, group all of the pieces in your design by selecting them and using the shortcut Ctrl and G.



9. Now that your design is finished, we can copy it to make a pair of earrings. Select all of your pieces and use the shortcut Ctrl D (duplicate.) It should appear on top. Click on it and move it to the side.
- 10.



11. In order to laser cut the shape out, we must make sure we have no fill and that we have a stroke of .001 in. To do that, you will need to go to the Fill and Stroke panel to the right. If it is not already open, hit Shift+Ctrl+F.

- a. Select the tab that says Fill and click on the box with an X in it. This means there will be no fill.
- b. We want there to be a stroke around these shapes. Select Stroke paint. Click on the solid colored square. Then select CMYK and type in 100 into the 5 boxes on the right. This will make the stroke black.
- c. Next, click Stroke style and type in .001 in, for the width.

12. Double check your fill and stroke on everything and save your file as a pdf. Your file is now ready to be laser cut!

