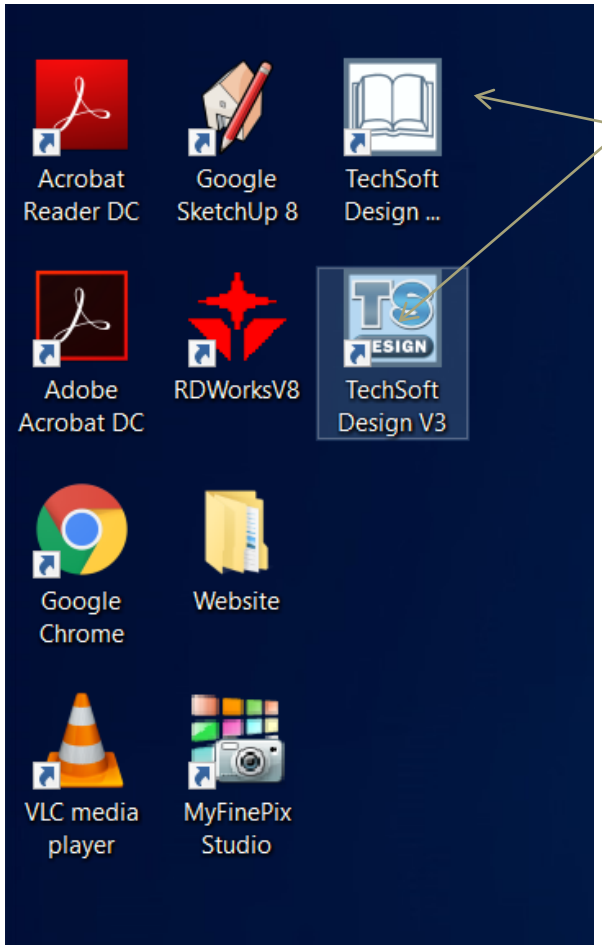
Making a simple clock model using TS/2D Design

Go through this tutorial - You will need to create your own shapes and have your 2D design files for your 'contoured stained glass windows' available (you can get this off your google drive).

Step 1

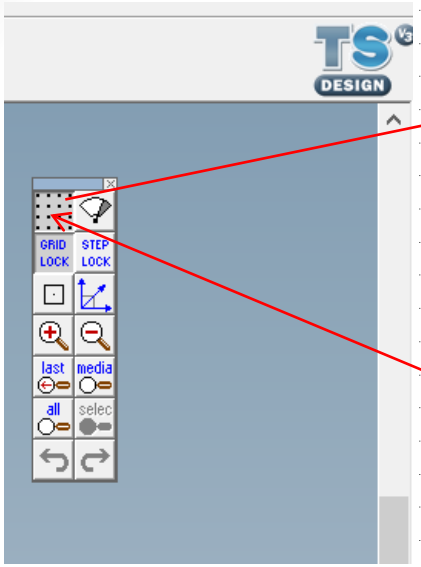


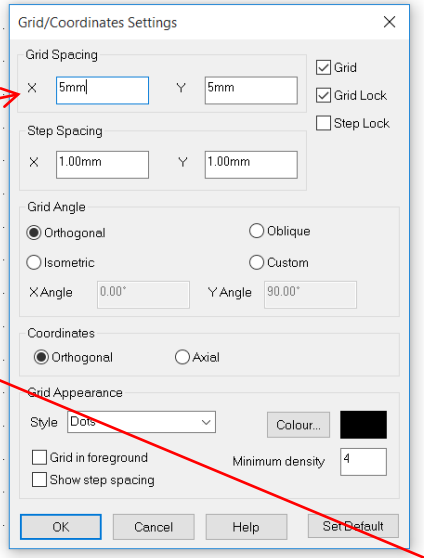
If you have successfully managed to download TS Design it should appear on your desktop of your computer/laptop. You will need to double click to open. You will notice there is a TechSoft Design Tutorial as well, you may want to click on this first to go through.

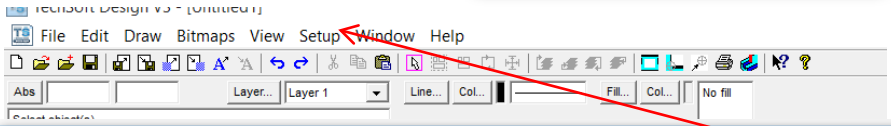
TS Design is basically 2D, it is just the updated version. The new program allows you to undo mistakes unlimited times (if you remember this was a problem with 2D you could only undo once).

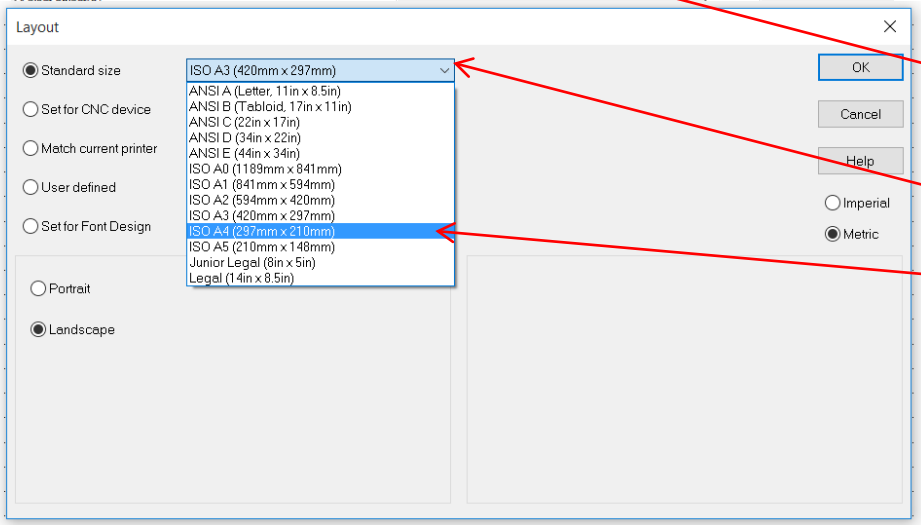
Try this by drawing a few shapes then delete them all and the either Edit - Undo or Keyboard shortcut - Ctrl - Z.

Step 2 - Set up your Artboard.





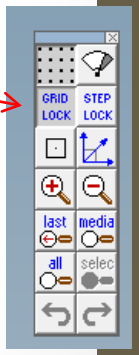




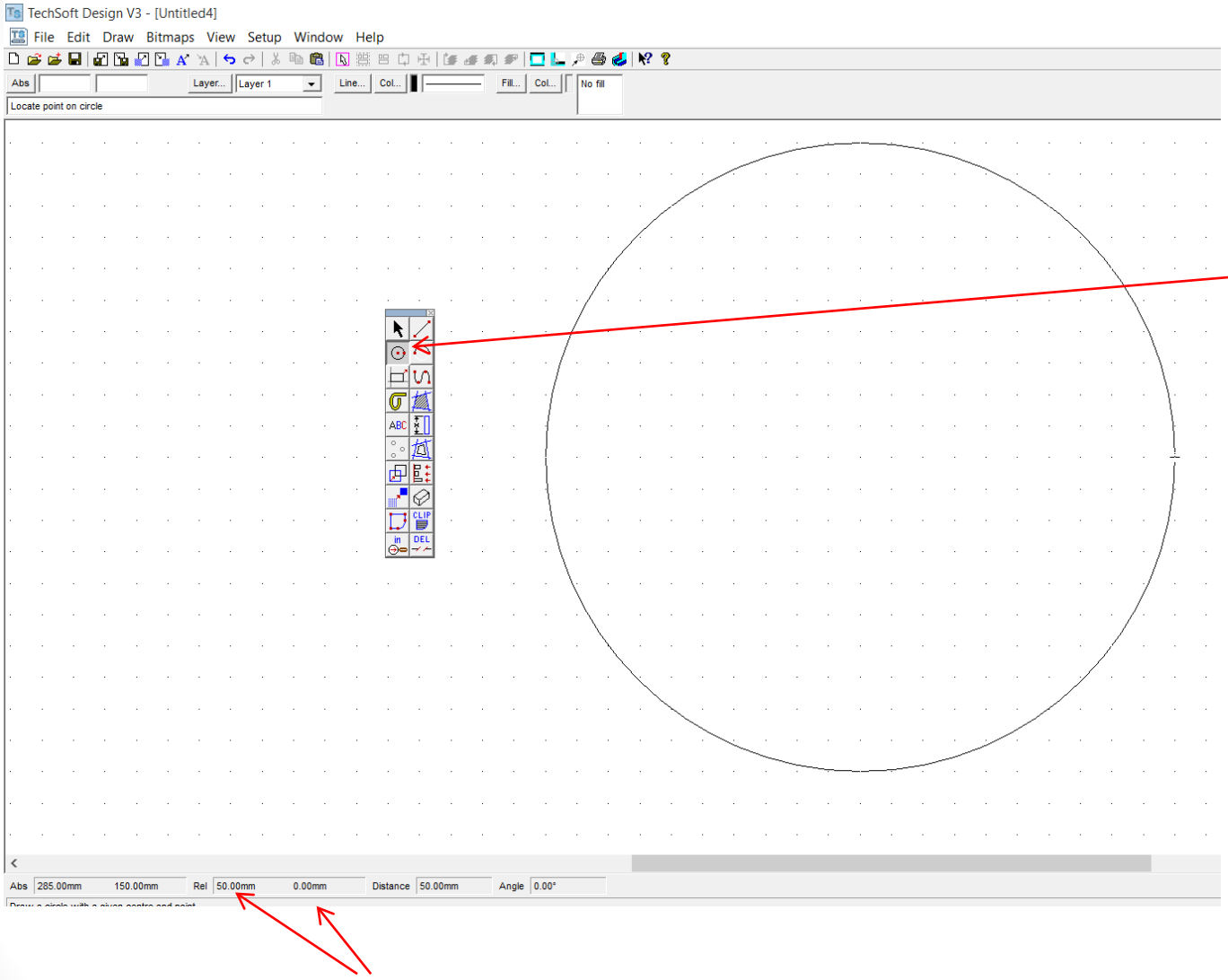
If you do not have your folders, don't worry you can still do this! You will make up your own shapes then draw these onto an A6 piece of paper (if you do not have any paper we can do this as catch up work during intervention sessions when we return to school.

Follow these steps:

1. Switch 'Grid Lock on' (top right tool box)
2. Double click on 'grid' (icon with dots), change grid spacing 'x' and 'y' to 5mm.
3. Go to Top Tab Bar (top of program) and click on 'Setup' - 'Drawing' - 'Layout'. Change 'Standard Size' to ISO A4. Click OK.
4. Now go to File - Save - Save your model as 'Art Deco Model.V1'. Remember to save down regularly



Step 3 - Draw out your shapes



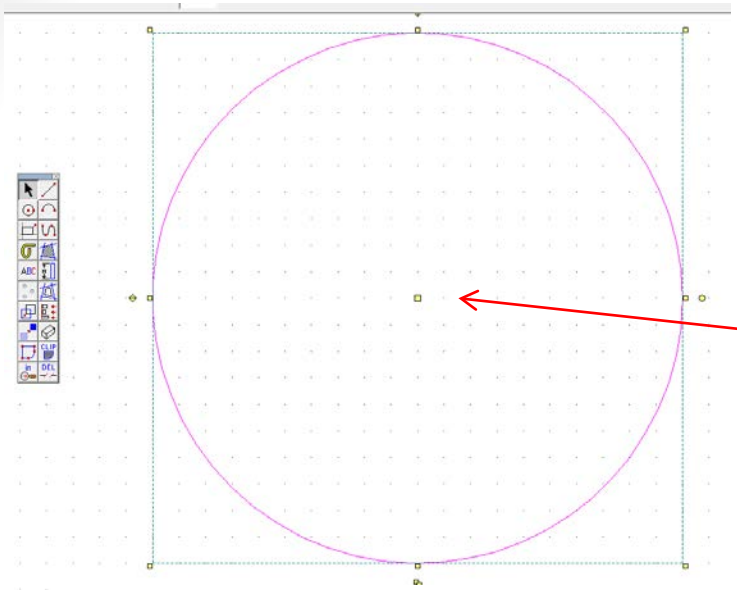
This is a fun and simple way to make a wall clock using the rotation tool.

Follow these steps:

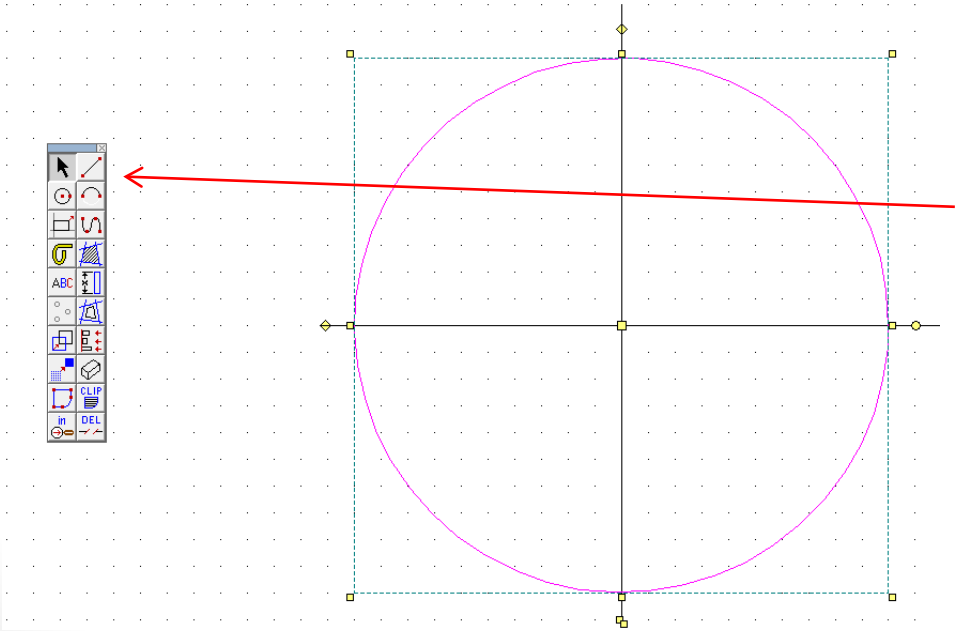
1. Draw out a circle, choose the radial circle (this has the red dot in the centre). The radius measurement aproximately 50mm (use Rel at bottom of screen - remember the other measurement should be 0mm.

On the Rel one measurement should be 50mm and one 0mm.

Step 4 - Find your centre line



Centre yellow square



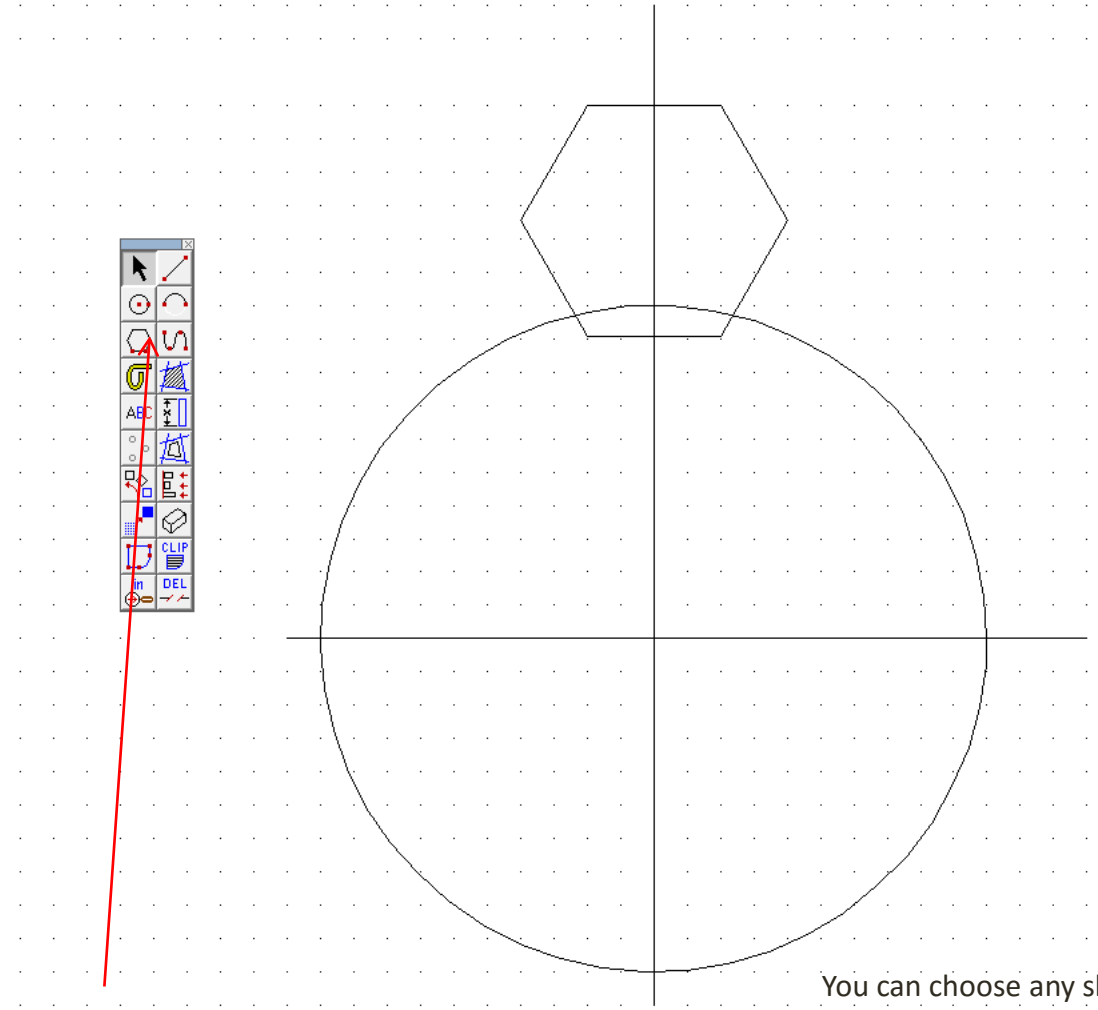
Choose line tool and draw vertical and horizontal lines through yellow centre square.

This is a fun and simple way to make a wall clock using the rotation tool.

Follow these steps:

1. Use select black arrow to click on the circle.
2. The yellow centre square should appear and should be sat on a dot.
3. Choose the line tool and draw crosses through the centre yellow square.

Step 5 - Draw small geometric shape



This is a fun and simple way to make a wall clock using the rotation tool.

Follow these steps:

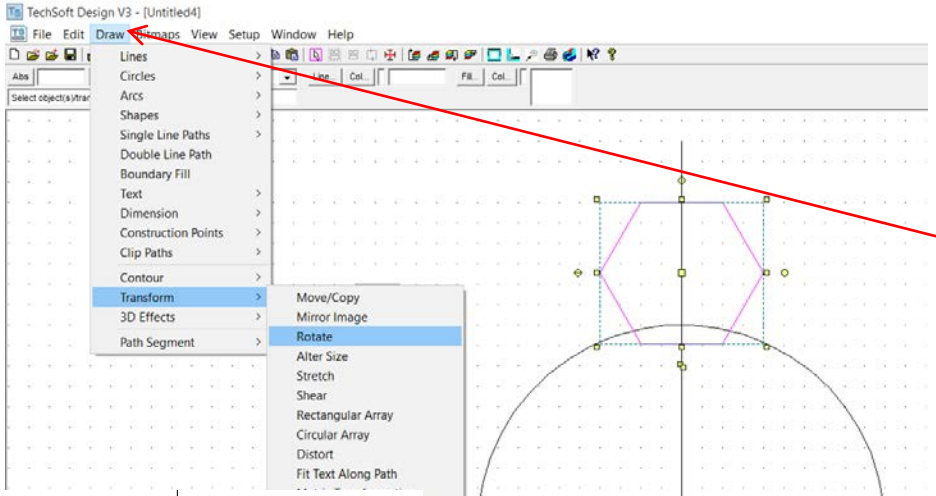
1. Choose a geometric shape in tools.
2. Centre shape on top of circle, the shapes centre yellow square should be in line with the vertical line.

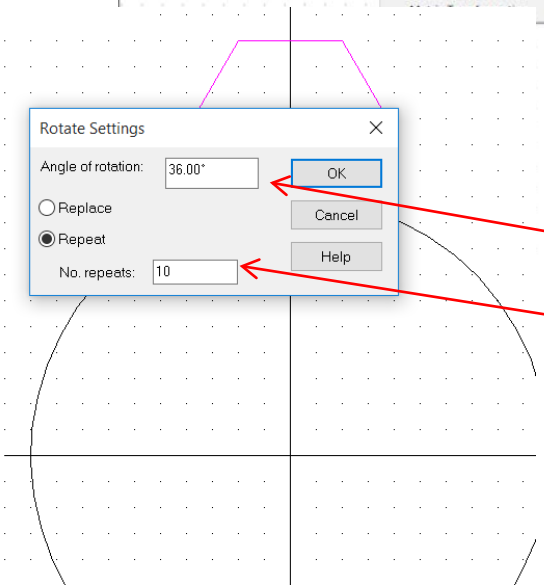
Experiment with different shapes, the polygon tool you can set to different numbered sides.

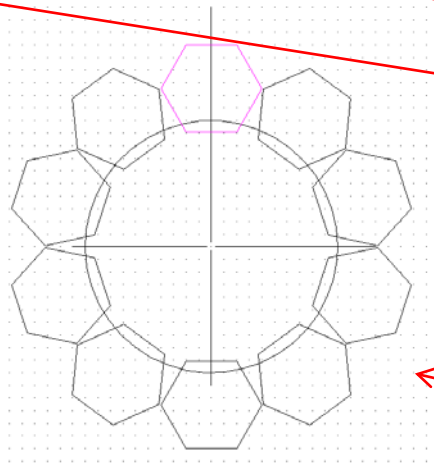
You can choose any shape. Experiment with lots of different shapes and how many you can rotate around the circle to see the outcome

Step 6 - Rotate shape

You could also click on this tool as it will take you straight to the Rotation Settings.





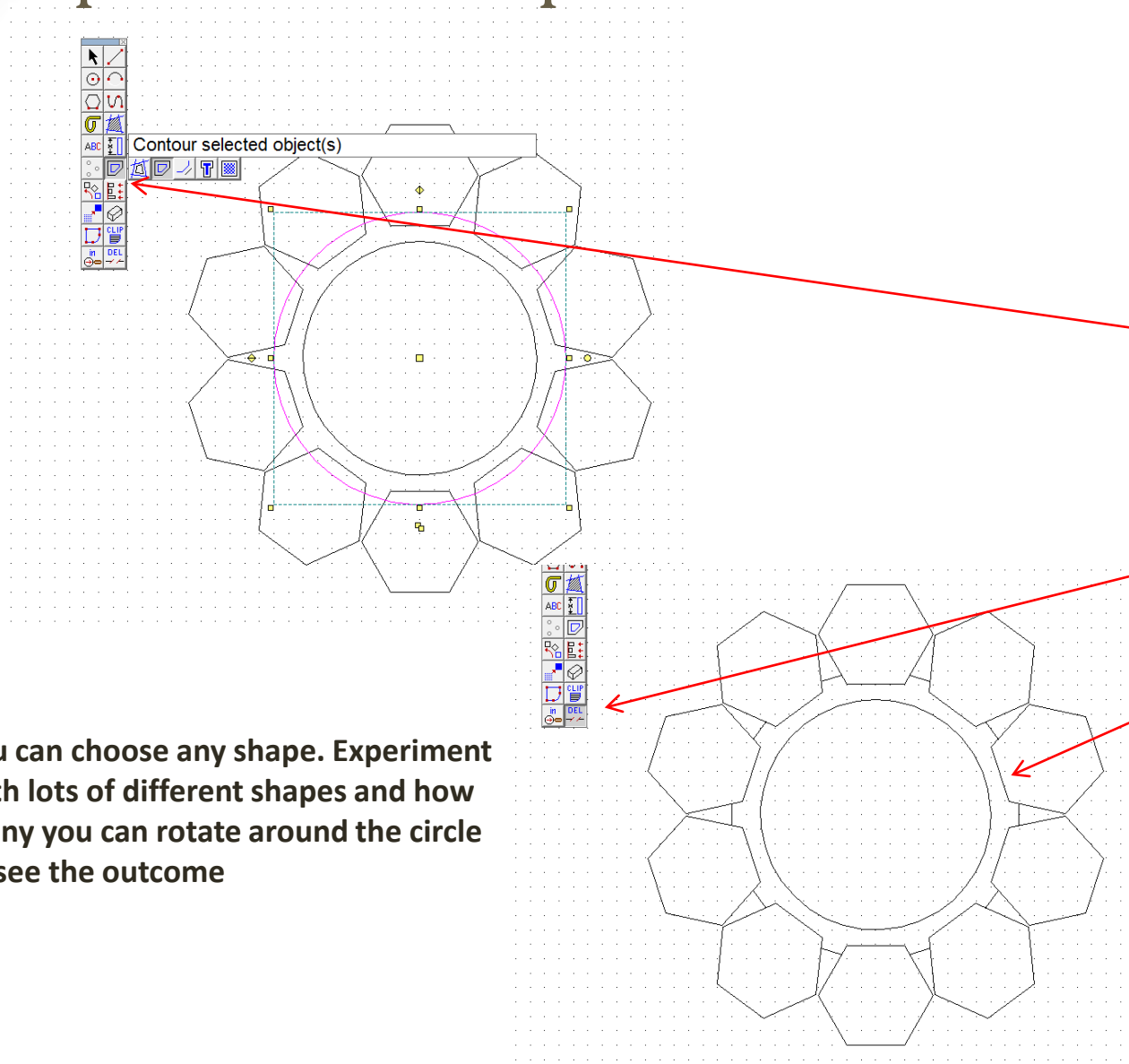


You can choose any shape. Experiment with lots of different shapes and how many you can rotate around the circle to see the outcome

Follow these steps:

1. At this stage you need to rotate the shape around the circle. Select your outer shape.
2. Go to 'Draw' - 'Transform' - Rotate.
3. The Angle of rotation depends on how many of the shapes you want to rotate around the outside.
4. To calculate you need to divide 360 by the number of repeat shapes.
5. When you get the answer write correct angle of rotation and No. repeats.
6. Click ok and and cross will appear.
7. You need to centre the cross on the crossed line and click.
8. You shape will rotate around the circle.

Step 7 - Rotate shape

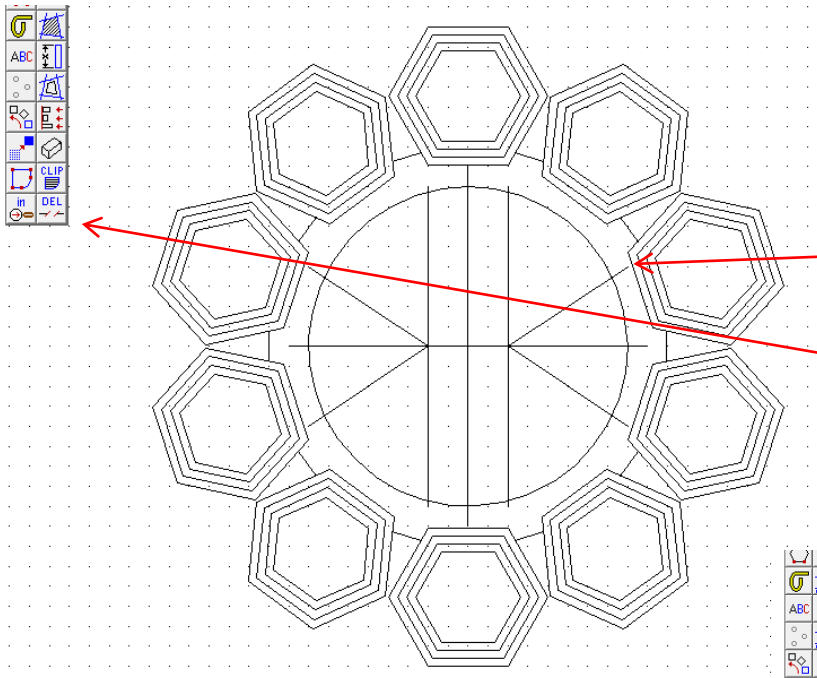


You can choose any shape. Experiment with lots of different shapes and how many you can rotate around the circle to see the outcome

Follow these steps:

1. Select the Circle shape again.
2. This time hold your mouse over the contour tool, hold right click down on mouse and select 'Contoured selected object' (this looks like a square with the corner chopped off).
3. Now choose 'delete crossover' tool and delete the outer circle part that goes through the rotated shapes (this will depend on the shape you choose - again it is trial and error so don't get disheartened if it goes wrong just start again!).
4. You should still be left with the inner circle fully intact.

Step 8 - Add patterns

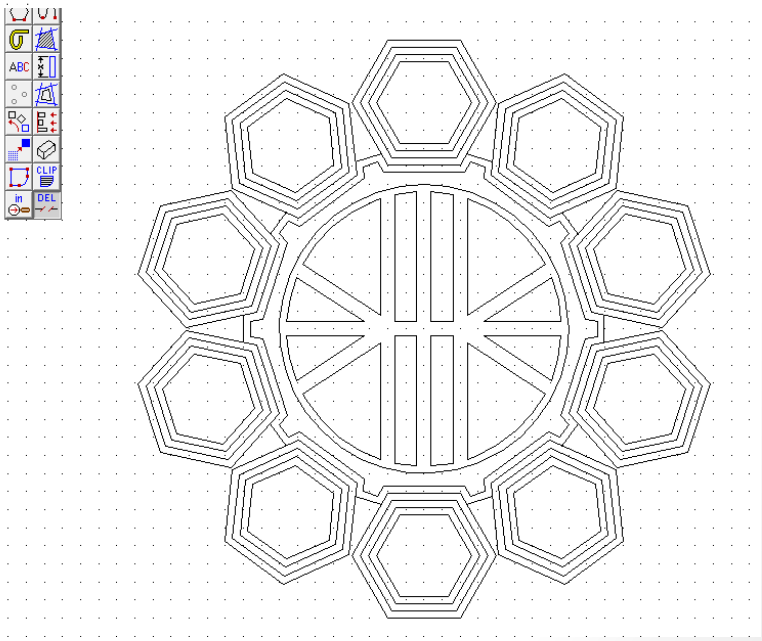


If you are going to create a contoured window effect make ~~sure you~~ cross over the lines they delete the cross overs or it will not contour.

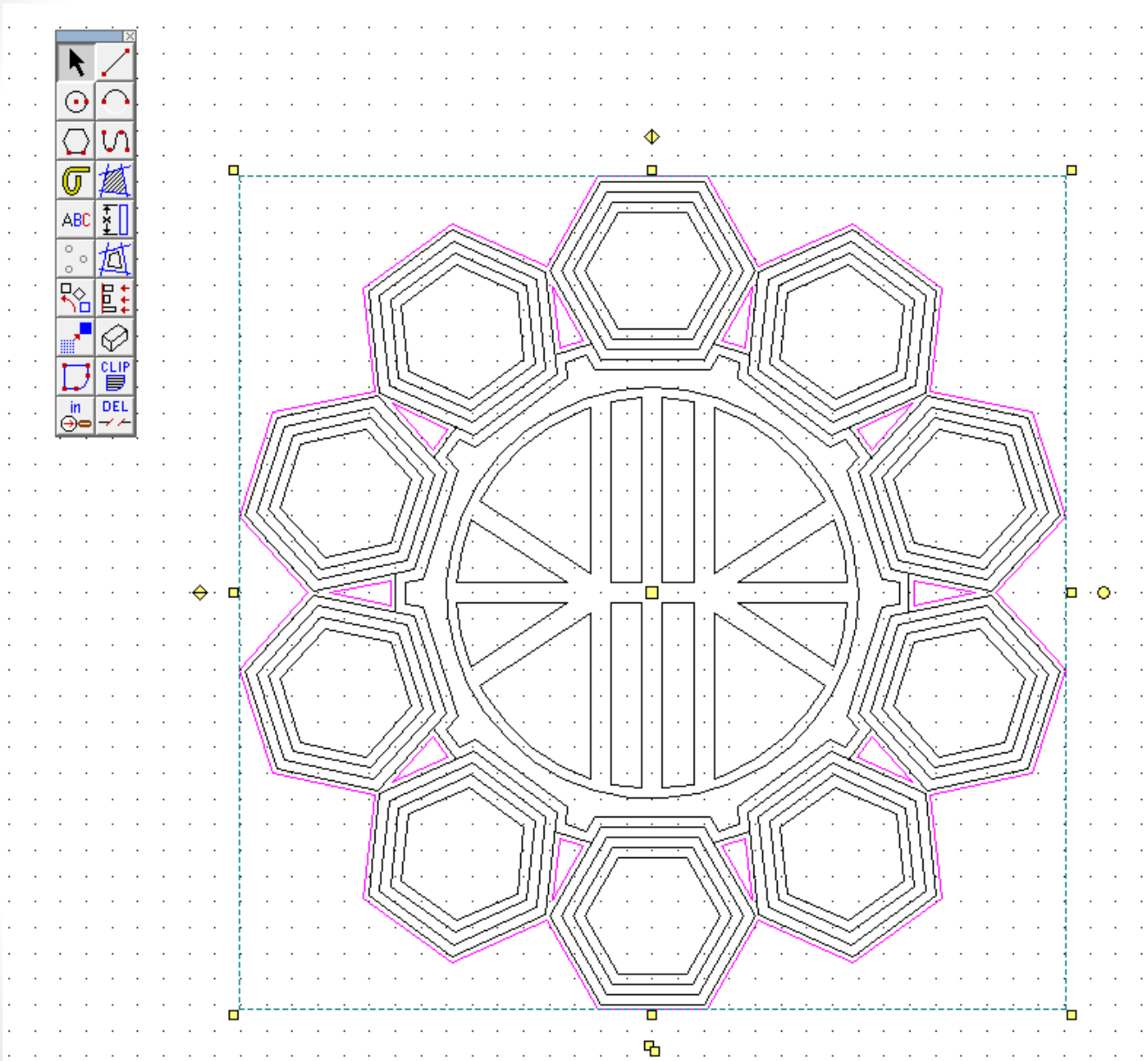
Follow these steps:

1. Either choose your patterns to copy from to do engraving or FLW window. You could also draw out your own patterns.
2. It is up to you whether you want your patterns engraved or contoured.

Again experiment at this stage. I just had a go using both the contour (wonky house) to see what effect I could get. Just remember when you select the (wonky house) contour, make sure to click the Graphic Path as this will give you pointed edged rather than curved edges.



Step 9 - Create last outer contour line

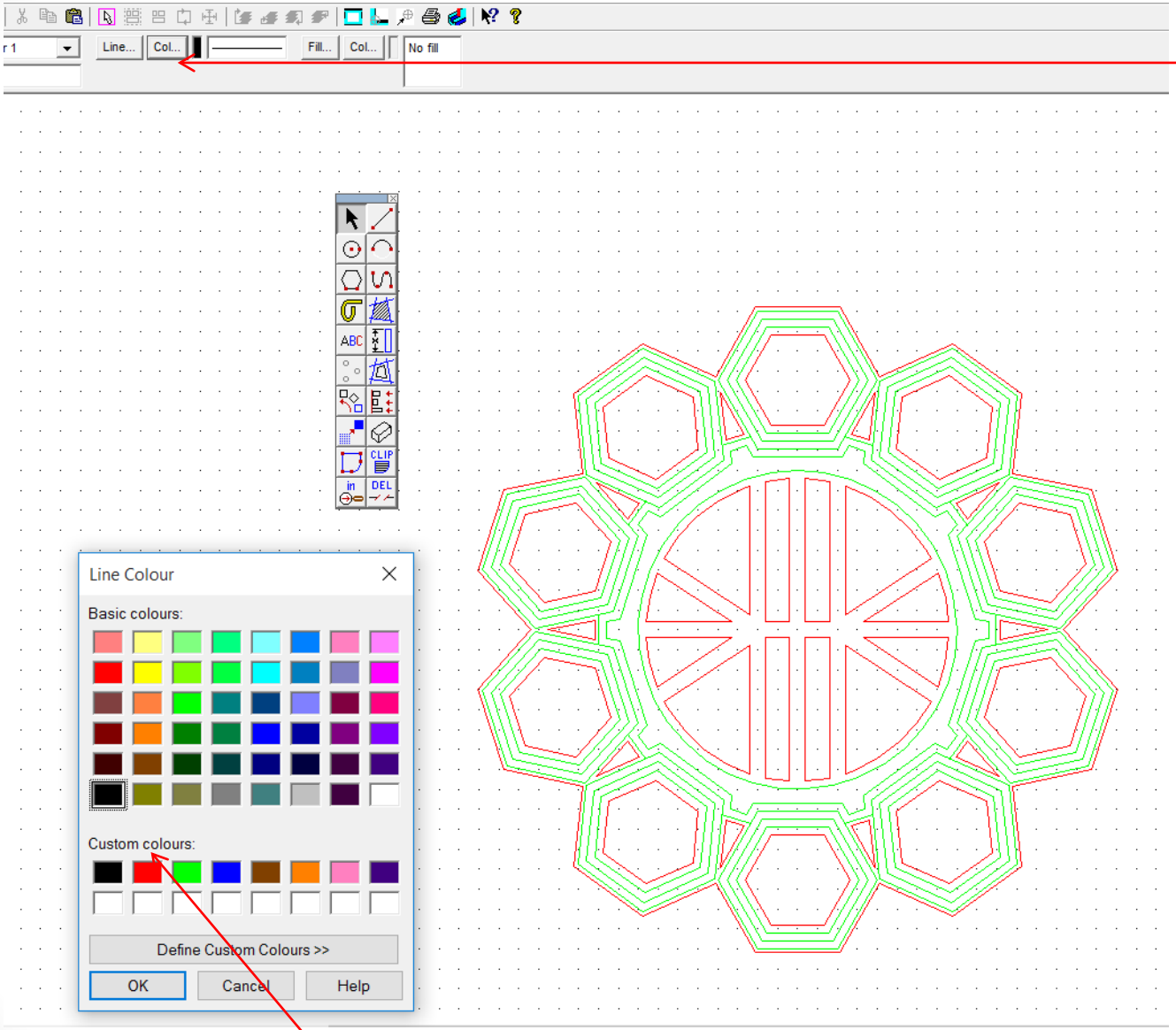


Follow these steps:

1. You need to make one more outer contour line (if you will see due to how many shapes I rotated there are some triangles as well.
2. Select Contour (wonky house), set spacing at 1mm, and click Graphic Path.
3. Click around outside of your clock shape.
4. This should appear as a solid line around outside, if it does not some of your shapes are not connected and it would be better to start again!

Step 9 - Colour lines for print.

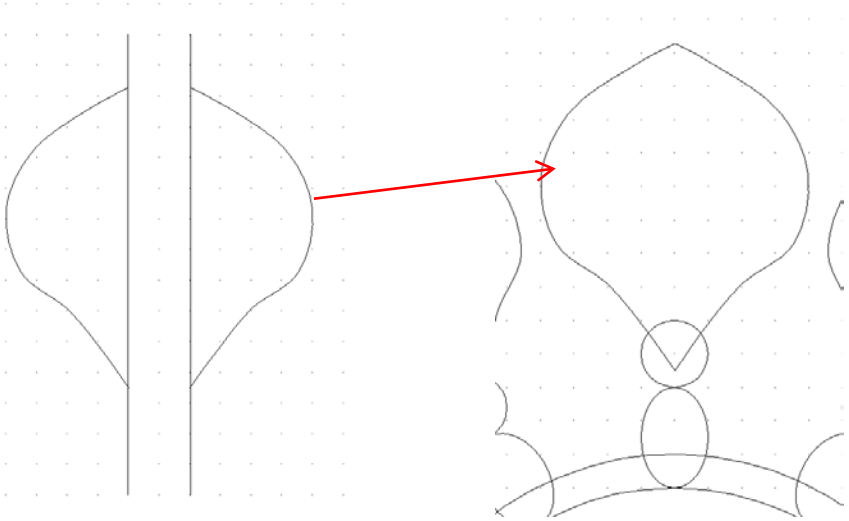
Follow these steps:

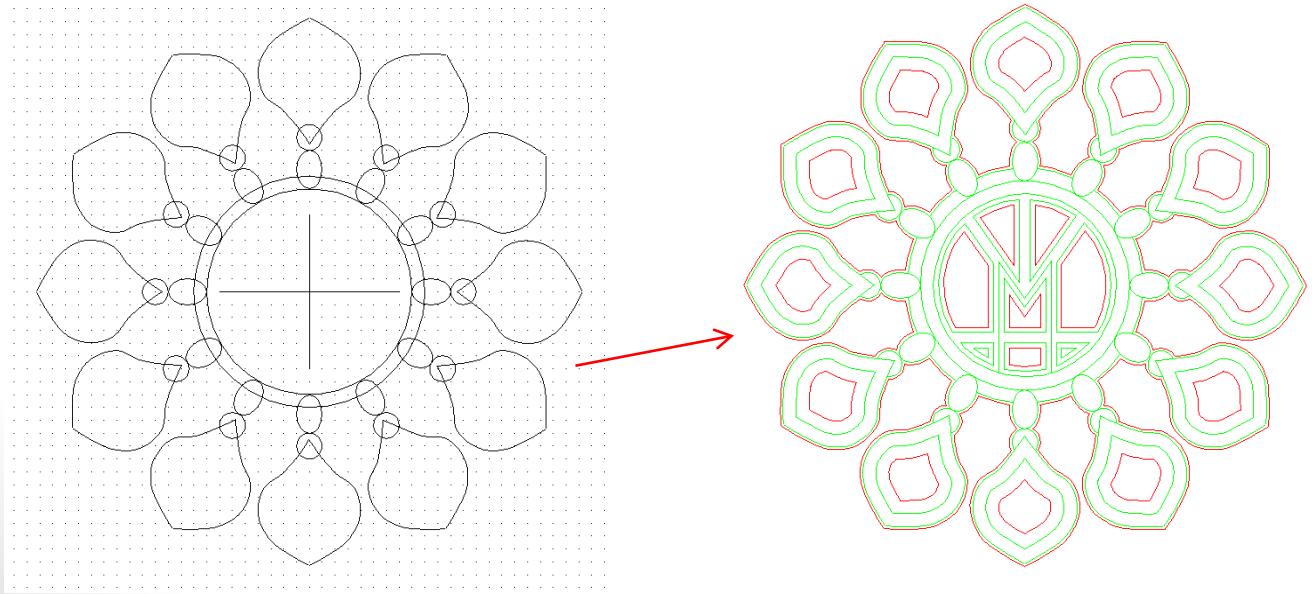


Choose colours from custom colours.

Choose which lines you would like to engrave and which to be cut out.
Red to cut and green to engrave, not all parts will cut out accurately.
Choose Custom colours for green and red.
You can make lots of different ones of these as see which work best, add more rotational shapes around circle, different shapes, different sizes, some will work some will not, print screen the ones that did not work as well, add them to your PowerPoint doc and annotate why you think they didn't work.
Print screen and add to your Model PowerPoint document. When all three models are complete upload all TS/2D design files and PowerPoint model doc.

Step 10 - Practice with other shapes drawn with the path tool and shapes



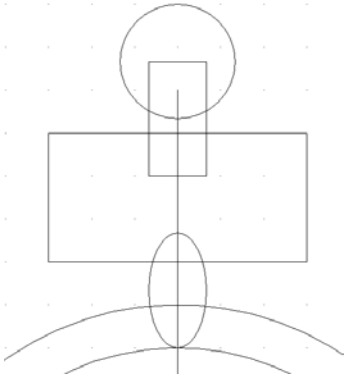


Follow these steps:

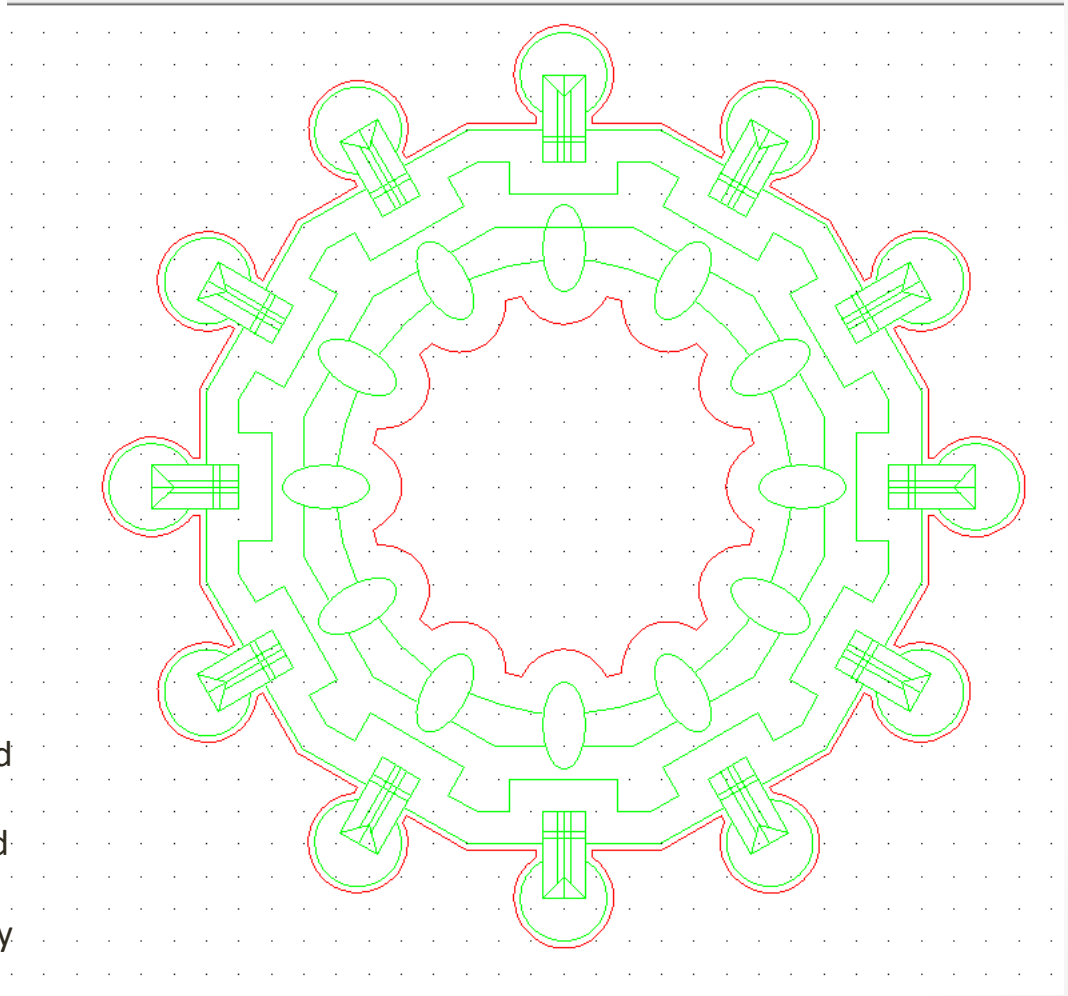
1. Go back to step 3, but this time try to become more complex with your shapes at step 6. Try drawing a straight line, use the path tool to draw a curved shape on one side of the line, copy and paste this shape then mirror it to complete your shape.
2. Just experiment with different types of shape and sizes. It doesn't matter if they don't work, just print screen and explain why you think they have not worked.

I added some FLW inspired construction lines in the circle part, then contoured 2mm with graphic path. I then decided which parts to cut out and which to engrave. Don't forget to add 1mm contour around the outside! If it doesn't contour then your lines are not joined somewhere!

Examples of what you can do with this method



Here I drew the above simple shapes, contoured 12 repeats at an angle of 30. I deleted some crossover lines and then used a 5mm contour and pressed inside some of the lines. I changes the grid space to 1mm and made FLW stained glass window, then selected these lines and rotated them again 12 repeats to 30 degree angle! They should fit in the rectangle shape, but you could do this in any of the shapes.



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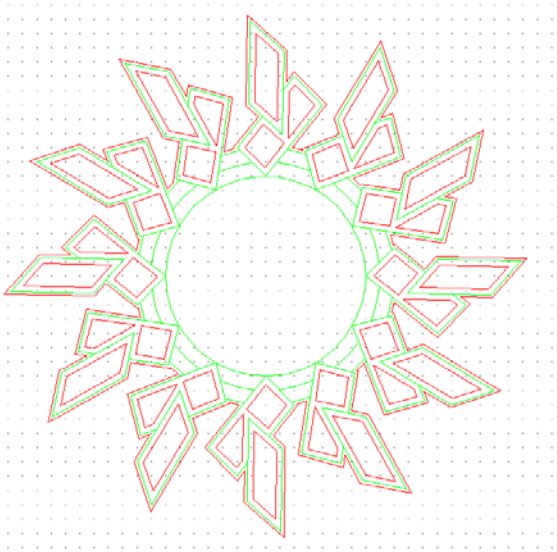

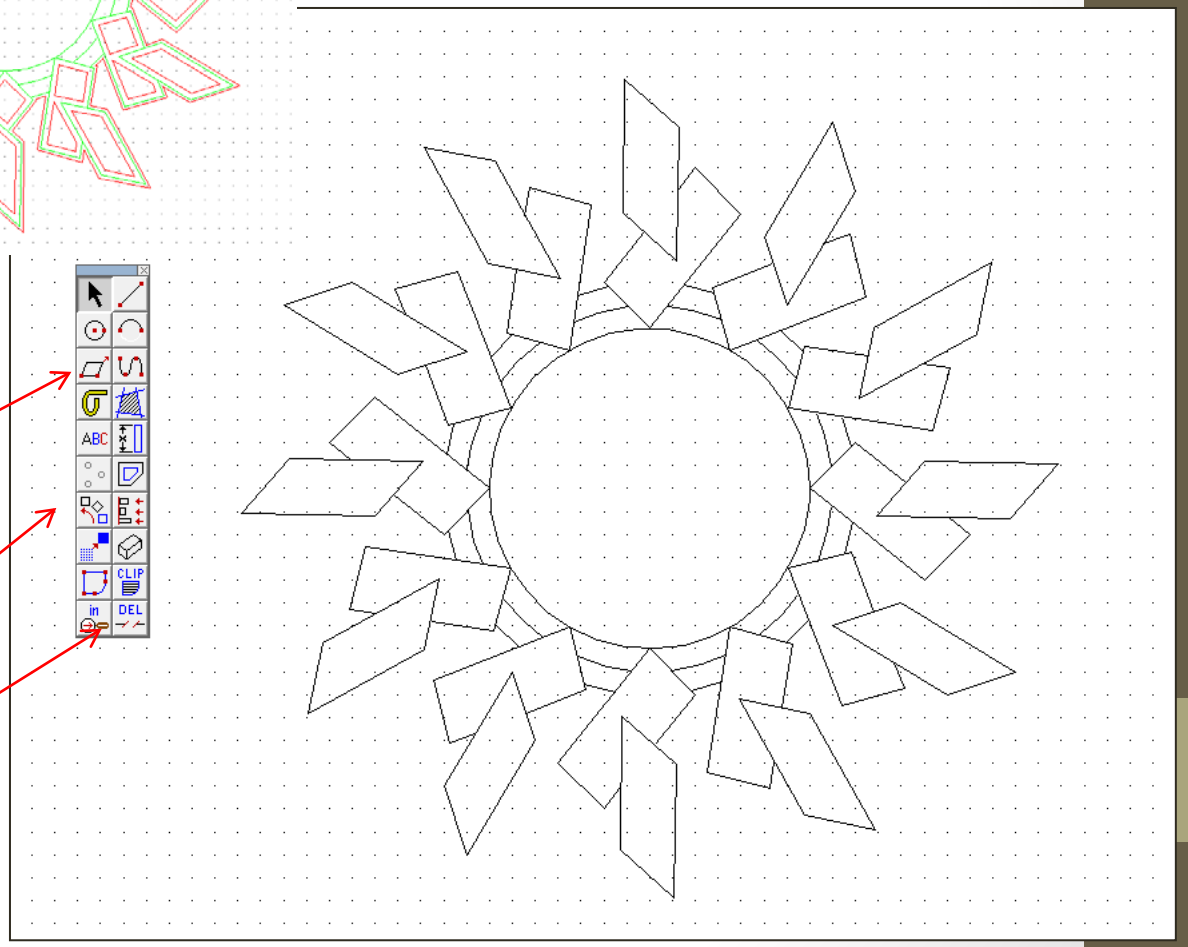

This is probably the most simple but looks the most difficult. All I did was choose the parallelogram tool and draw it to a random size, I then contoured 12 repeats at 30 degree angle. I then repeated the process, but moved the shape a bit higher. I finally deleted the cross overs. I then contoured 2mm inside the parallelogram and coloured the lines.