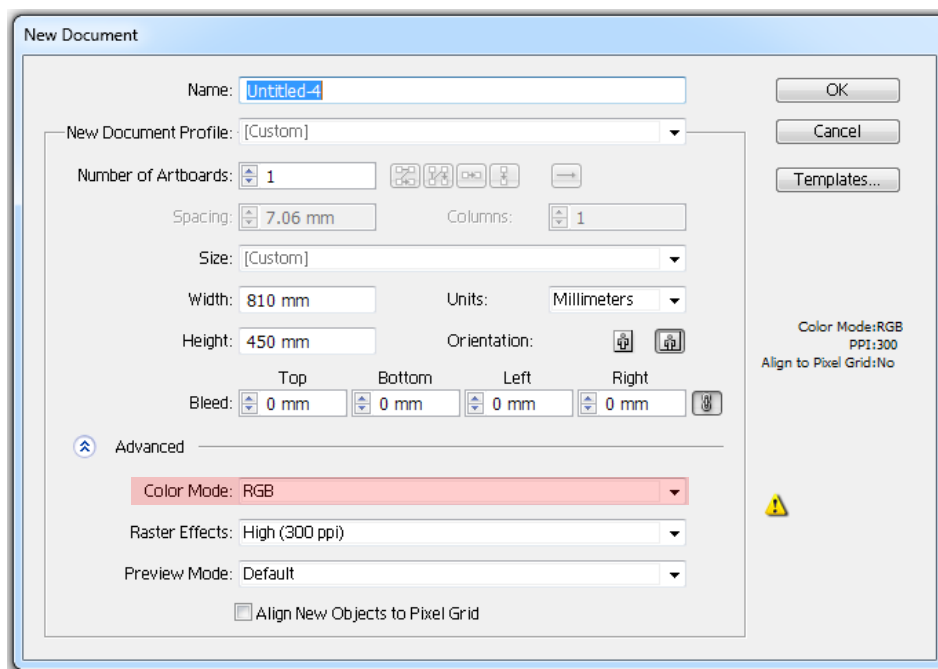


This document is prepared so students can correctly set up their Adobe Illustrator files laser cutting. Following the instructions in this document will assist us in understanding what you want from your job and us getting your job done as efficiently and correctly as possible.

Getting Started

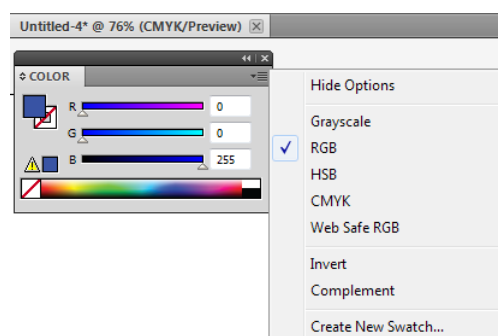
Firstly, lets start off with opening a new document. In the 'New Document' window you will need to have your Artboards sized to the laser cut bed; 810mm x 450mm and orientated in landscape. **Colour Mode MUST be in RGB** otherwise the file cannot be read by the laser cutter and your file will not be cut.



Important:

Many of you have come in with your new documents set up in CMYK mode and changing the colour of your lines under the RGB option in the Colour menu (shown in the image above).

This does **NOT** make the lines RGB and therefore will not get cut.



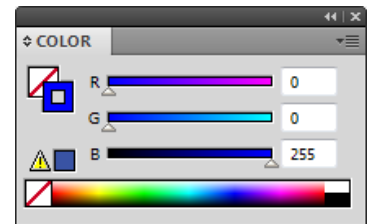
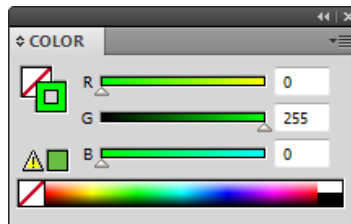
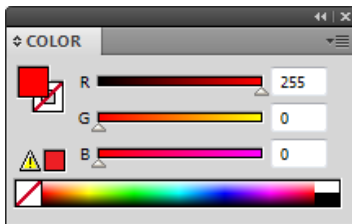
There are eight colours that you can use to distinguish what needs to be done i.e. line engraving, raster engraving, and cutting.
The following table shows you what colours we use.

Colour	Red Value	Green Value	Blue Value	Function
Black	0	0	0	Working Lines
Red	255	0	0	Raster Engraving
Green	0	255	0	Line Engraving
Yellow	255	255	0	
Blue	0	0	255	Cutting
Magenta	255	0	255	
Cyan	0	255	255	Not used

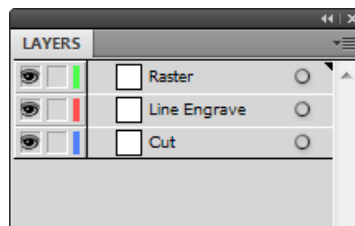
If for some reason you require multiple depths of raster or line engraving then you may use the other colours usually reserved for other functions provided you explicitly state this in your file or explained to us in person.

Magenta and Cyan are reserved for such purposes.

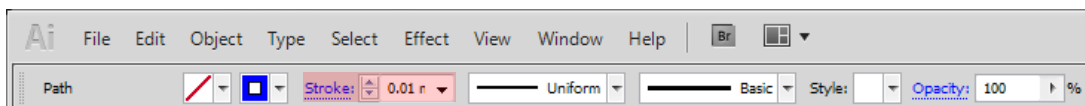
This is how your colour panel should look for raster engraving, line engraving, and cutting respectively.



You will notice with raster engraving the red is in a different box to the other two. No outline is needed. For the line engraving and cutting there **MUST** be no fill.

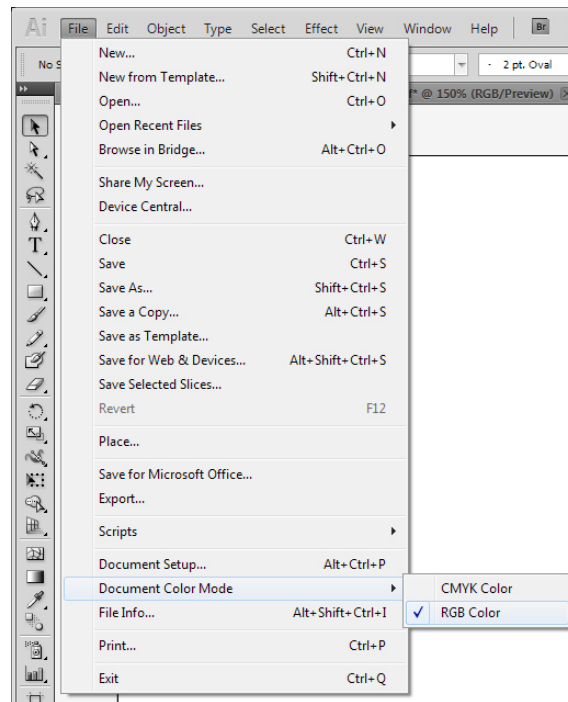


Each colour (function) **MUST** be placed in a separate layer and named accordingly.



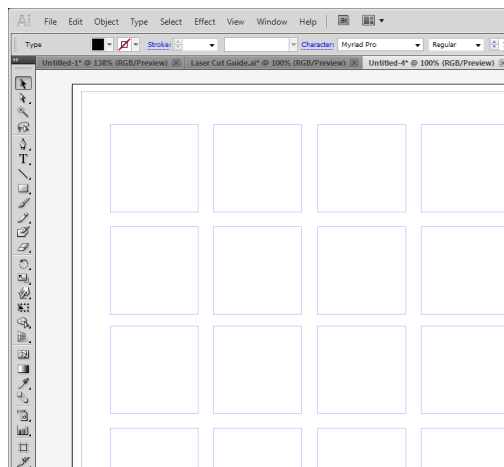
Line weights **MUST** be 0.01mm.

If you find you have been working in CMYK colour mode because you have forgotten to change the setting from the start, don't panic. Go to **File -> Document Colour Mode -> RGB Colour**. You will have to change your existing lines back to the correct RGB values.



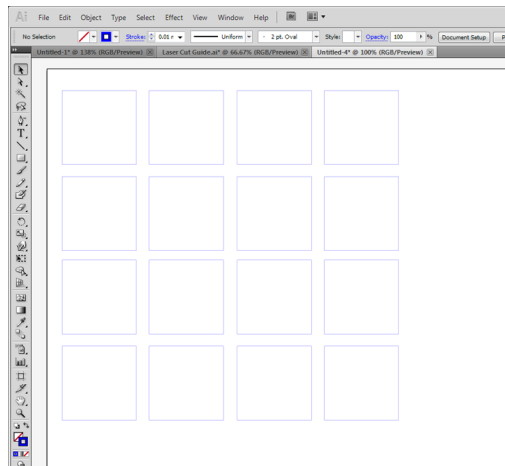
Laying out your file

Start by drawing a box the same size as your material and try align this to the top left corner of the artboard.

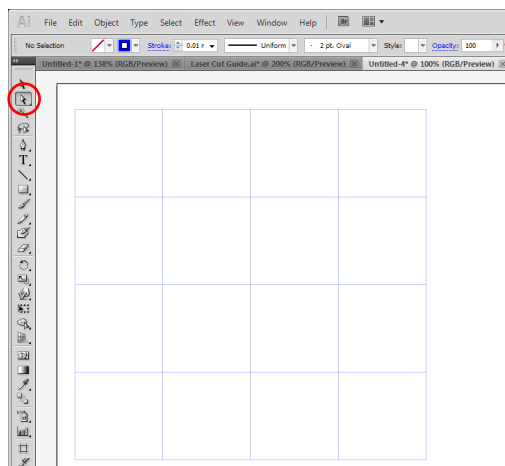


Note: If you require your cuts to be in a specific area on the material then please write a small note on the side of the artboard stating this.

When laying out your files try to do it so there are no multiple lines sitting on top one another. This will be a problem when there are multiple engrave lines which may end up cutting through your material. This isn't so much a problem with cutting but we still recommend you tidy up your line work anyway as more lines equate to longer cut time which in turn means more money spent.



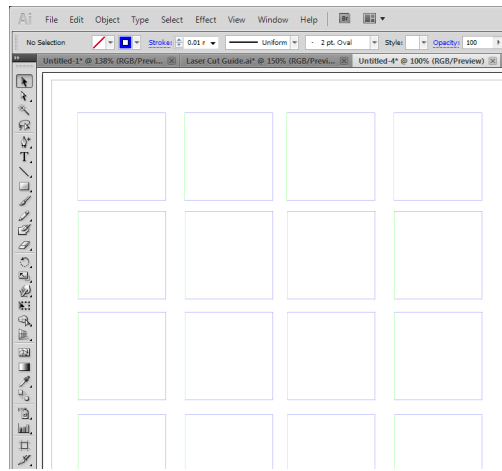
Do **NOT** lay your files out like above. This will result in multiple cut lines and taking a lot longer than required. If you are cutting a lot of similar or same objects, do not lay them out as separate objects.



Instead, try to organise them so they share one or more cut lines like above. Please do not copy and paste objects so that there are multiple overlapping lines. To remove overlapping lines, use the white cursor (circled in red) and select all the overlapping lines and delete.

You can check if you have double lines by closely inspecting the colours of the lines. If they appear darker than the other lines of the same colour then it means you have overlapping lines.

Important: Squares are used in the images as an example only. If we find that your file is just a bunch of squares, rectangles, or strips then we will not be cutting it unless you have a good reason to do so. Simple geometries can be cut by hand or machinery in the workshop.



For lighter material i.e. paper, thin card, card etc. it is a good idea to leave one side line engraved if you need all the cut pieces.
There is a constant jet of air blowing through the laser cut head which will displace lighter material when cutting therefore having one side intact will save you from recutting the lost pieces. This is not necessary but highly recommended.

Other points

Label your files and materials with your UPI.

Make sure we know you have dropped of your materials.

Materials must be as flat as possible.

Bring extra material if you can. We make mistakes too.

Advise us if you need your materials taped up.

One file per job. Use multiple artboard if necessary and label your artboards if you have different materials or different sized materials.

If you can, cram everything on to your page as tightly as possible. This will save you material in the long run.

If you are using a whole piece of acrylic, please take off the protective layer.

Try not to cut strips of acrylic. The acrylic heats up and warps resulting in very curved strips of acrylic.

Try not to cut anything smaller than 5mm x 5mm. Small pieces tend to fall through the honeycomb on the lasercut bed.