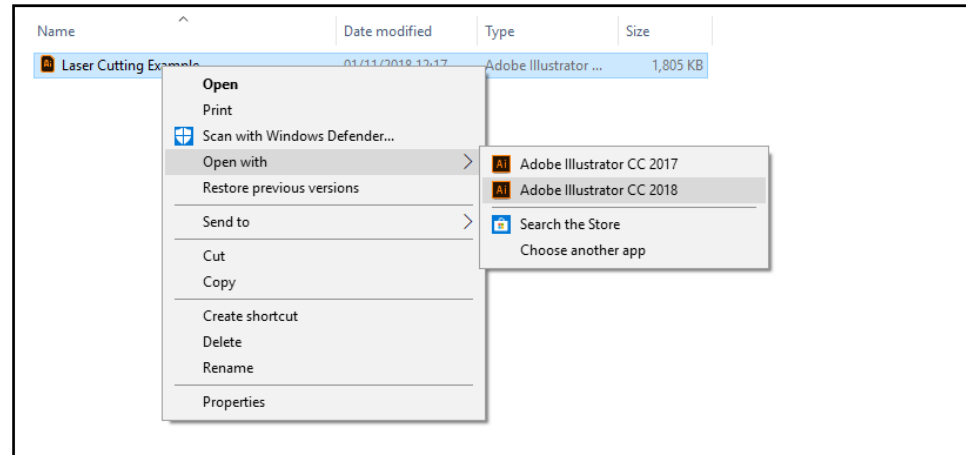


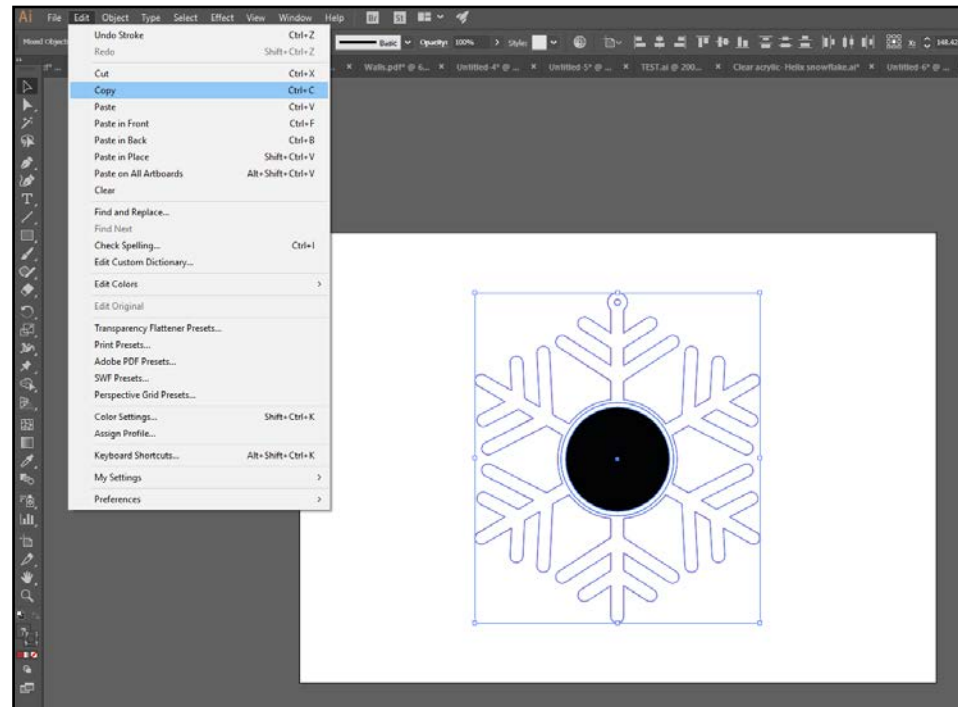
LASER CUTTING GUIDE

UNIVERSITY OF GREENWICH
SWS WORKSHOP
2018

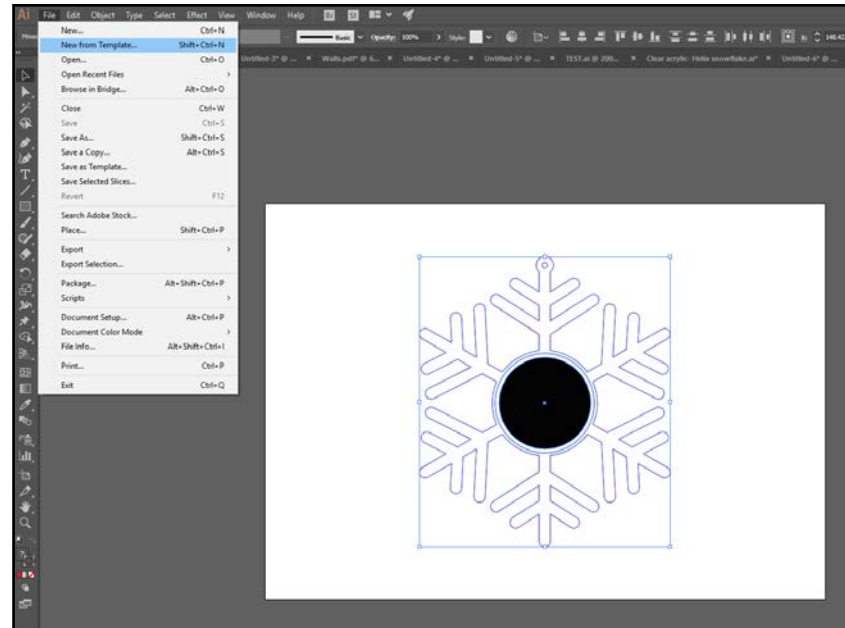
1. Open your file in Adobe Illustrator 2018. The file should be in a format which is compatible with Illustrator [eg. AI, DWG, DXF, PDF]



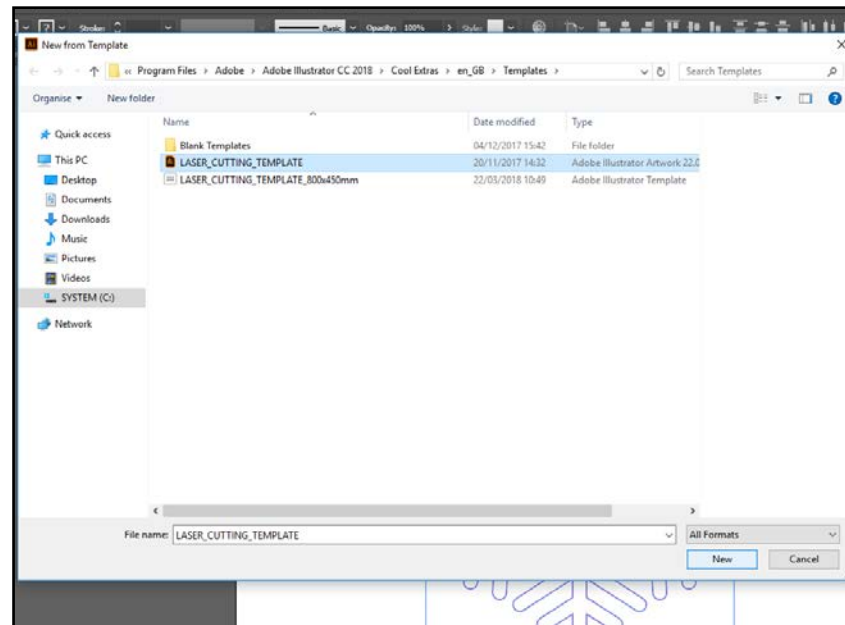
2. Select the artwork, then go to Edit - Copy



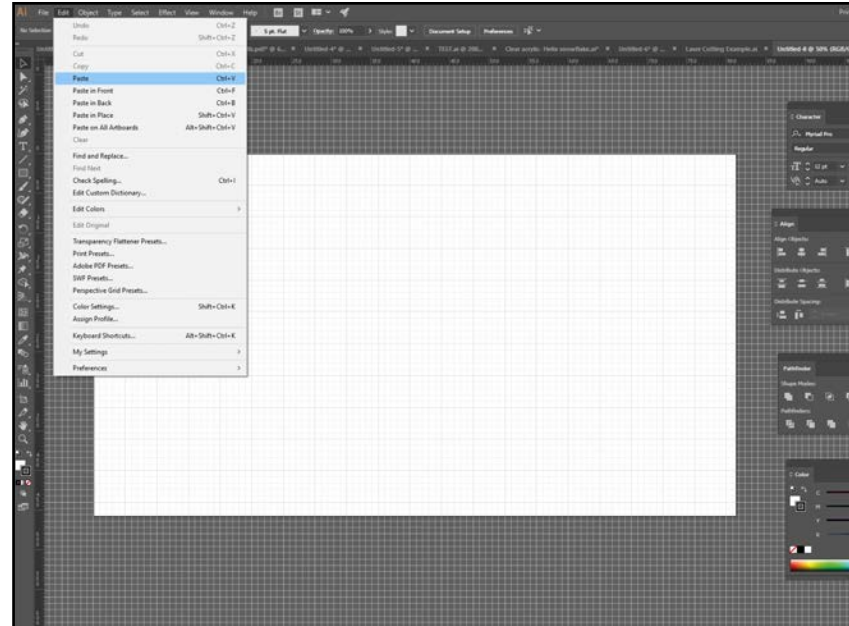
3. Go to File - New from Template



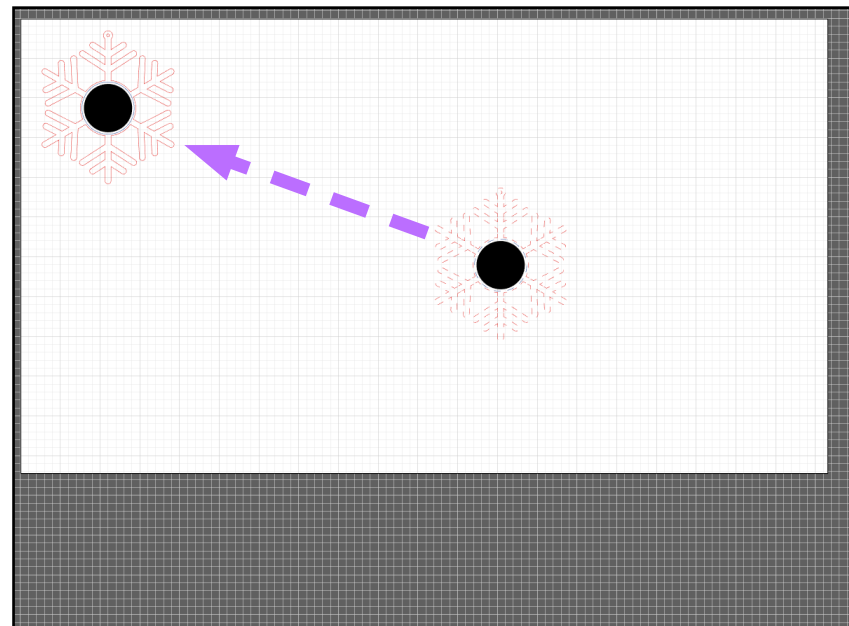
4. Open the file titled 'LASER_CUTTING_TEMPLATE'



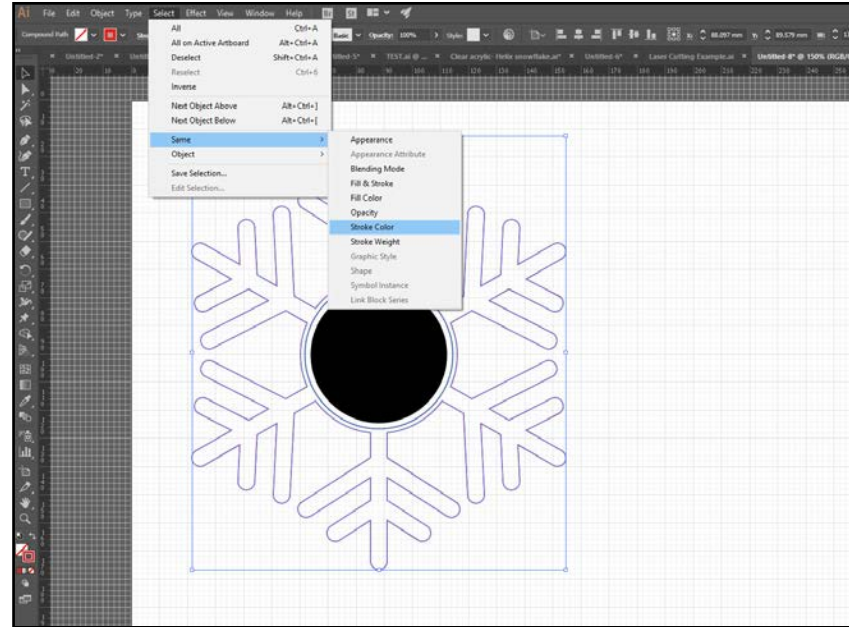
5. Paste your artwork into the new template, Edit
- Paste



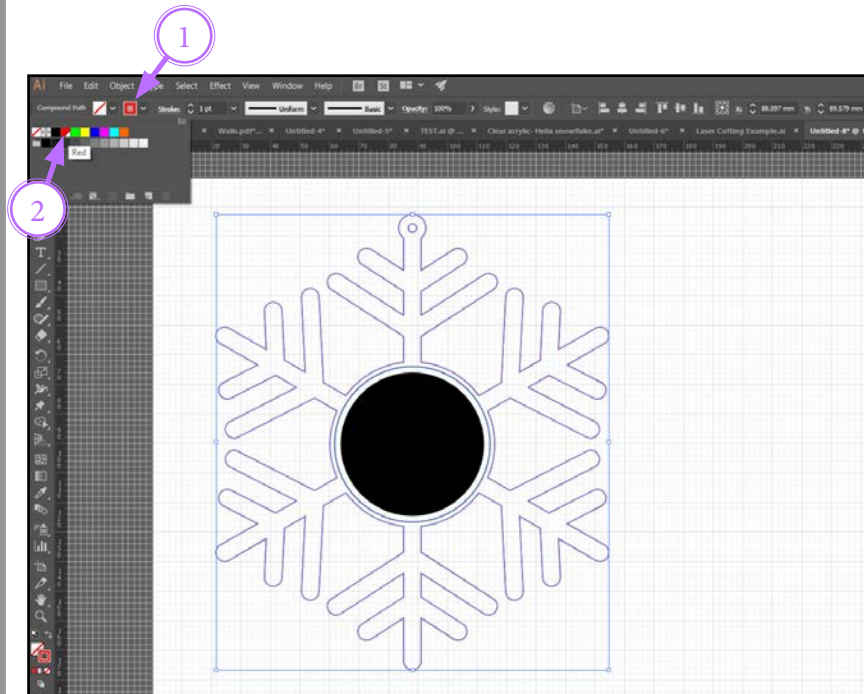
6. Rearrange the artwork, preferably aligning to
corners and edges to save material.



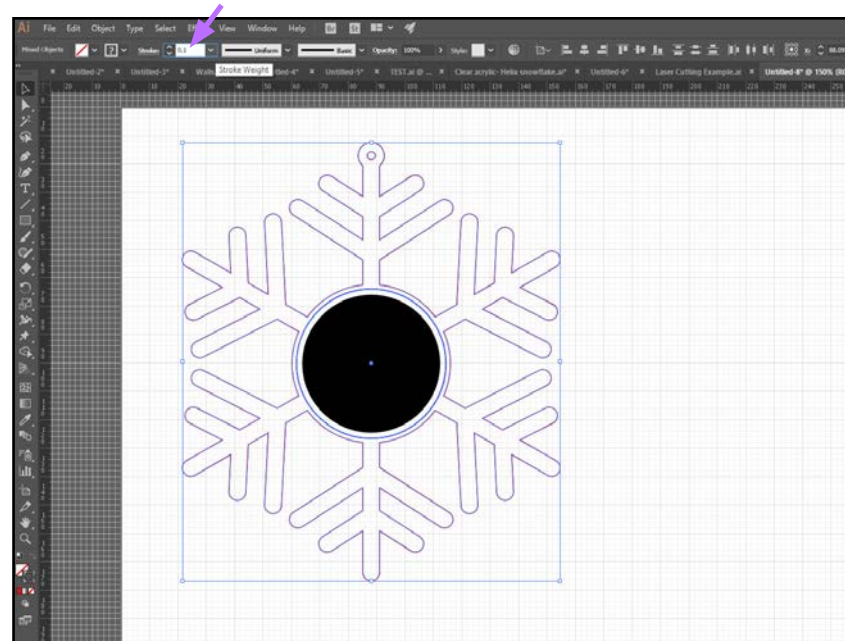
7. To ensure the Stroke colours are correct for laser cutting, select a colour and go to Select - Same - Stroke Colour. This will select all lines with the same stroke colour in the file. Do this for both red & blue lines.



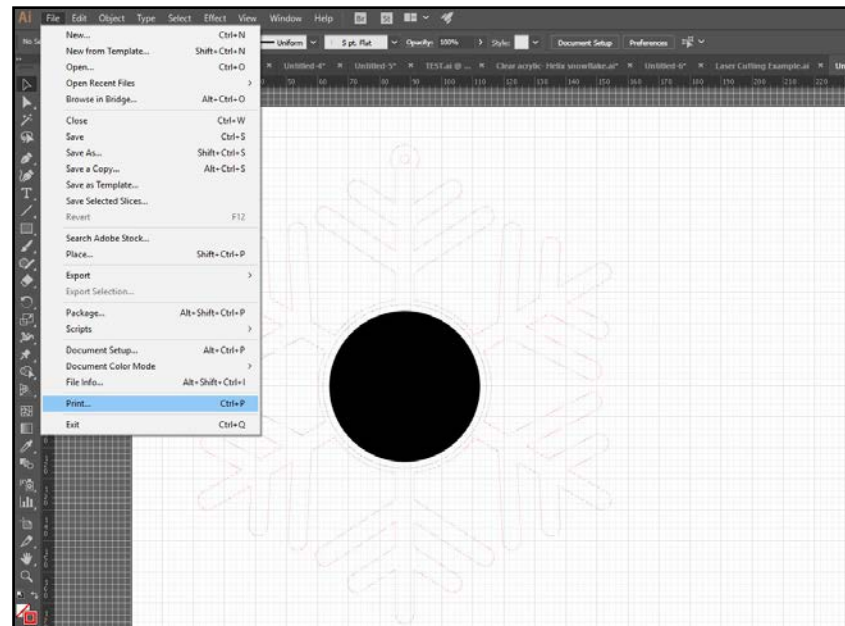
8. Once selected, click the stroke colour icon and select the correct RGB colour. These will be pre-set within the template. Do this for both red & blue lines.



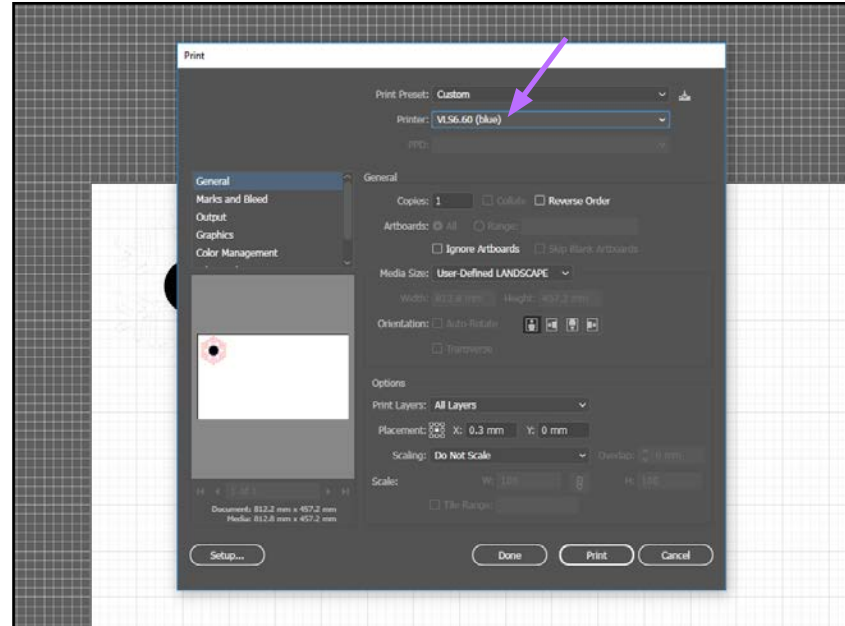
9. Once the colours are correct, select all the strokes within the file. Do NOT select filled areas which are to be rastered. With all strokes selected, change the stroke weight to 0.1



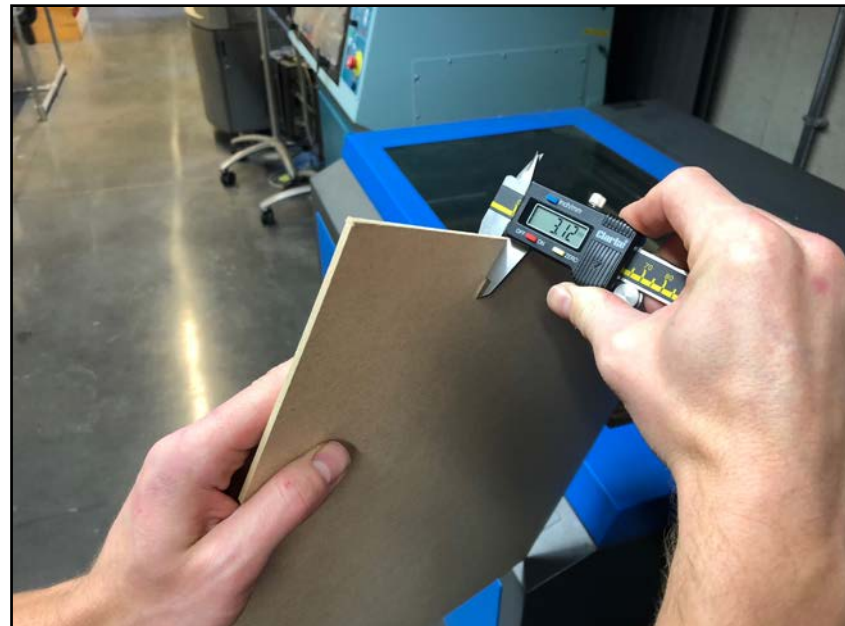
10. With all checks carried out and the artwork fully prepared, send the file to print: File - Print



11. The print dialogue box will open. Ensure the printer is set to 'VLS6.60 (blue)'. Do not adjust any other settings. Click Print.



12. Ensure you have checked the thickness of your material with the calipers. Please note that material thickness does vary, when selecting the laser settings you will need to round to the nearest setting. In this case it will be 3mm MDF.



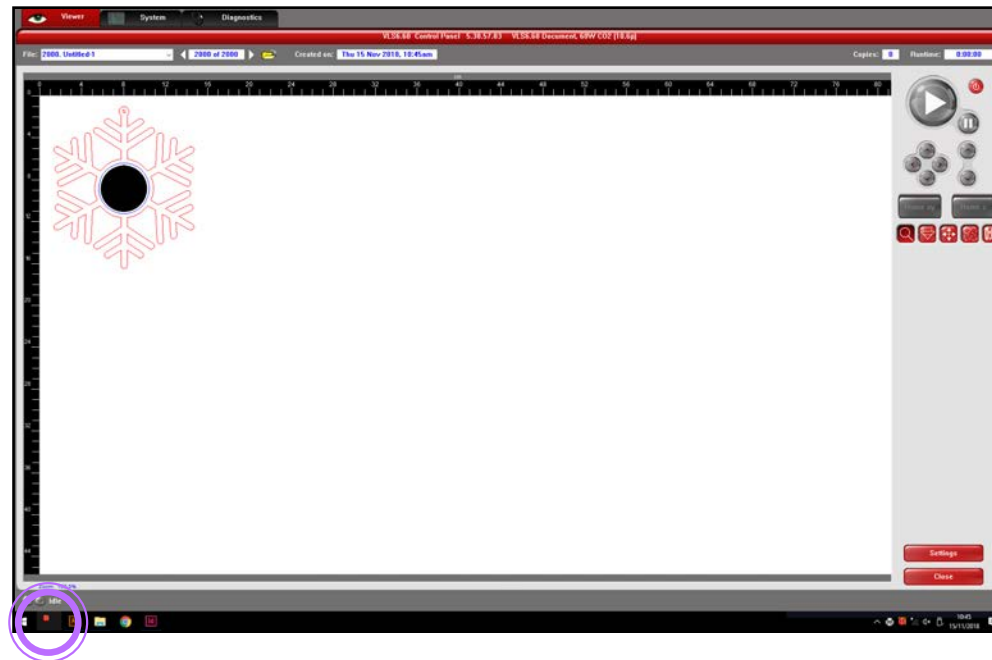
13. Place your material on the bed of the laser cutter. Align it with a corner or edge whenever possible. Ensure the material is placed flat and taped down if necessary. Ensure the bed is clear of any debris from previous jobs. Close the lid once material has been placed



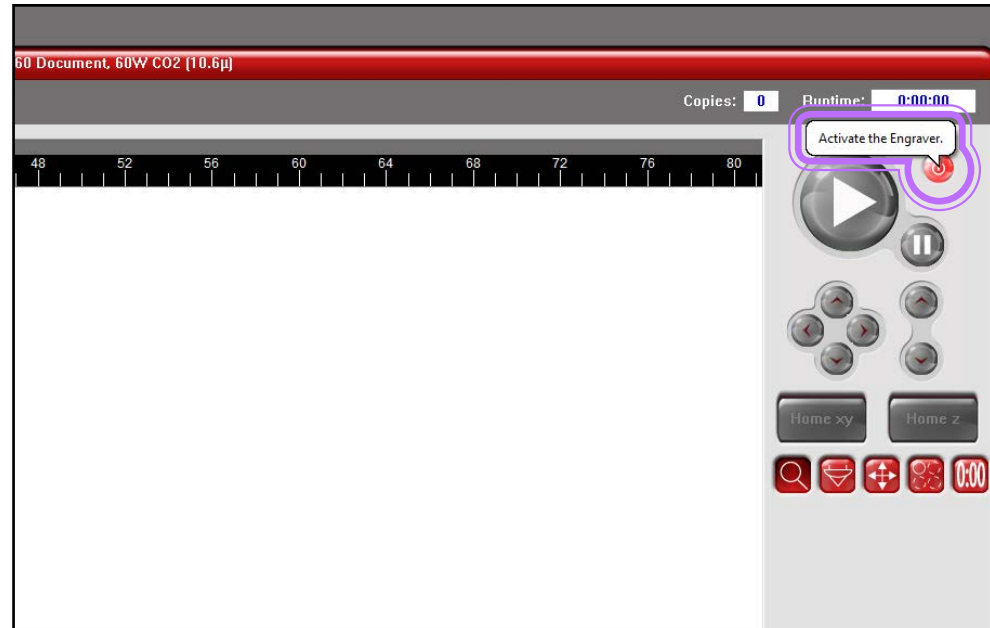
H&S CHECK

Ensure acrylic always has a layer of film or masking tape face down on the bed, completely exposed acrylic will damage the laser

14. You will need to open up the UCP software. It is pinned to the taskbar. Once open, your artwork should be pre-loaded as you've already sent it to print. Ensure the correct colour lines and fills have shown up. If any lines are greyed out or not visible go back and check your artwork in Illustrator and send to print again.



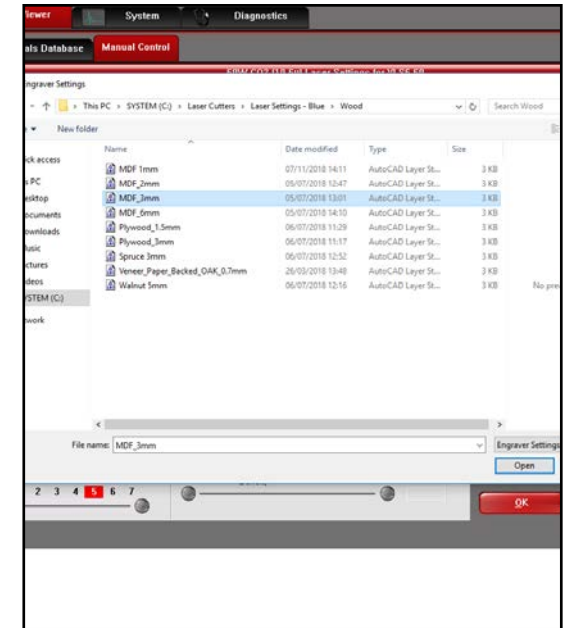
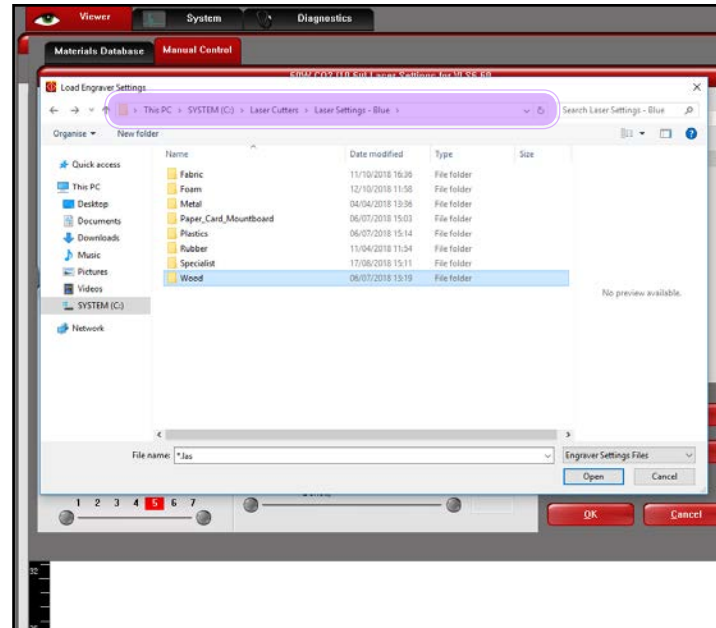
15. The first check is to ensure the engraver is turned on. Press the icon highlighted to turn the machine on. If others have been using the laser before you, it may already be on. This is signified by the large 'play' icon turning green. If you have just turned the laser on, wait for the 'play' icon to illuminate before proceeding.



16. The first step is to select the correct settings based on the material you are using. Start by clicking the 'Settings' icon located at the bottom right of the screen. The settings window will pop up, ensure the 'Manual Control' tab is selected. Click 'Load' once this is done.



17. The settings directory should open up, ensure the explorer address is the same as that pictured. The material settings are categorised by type. Within the folders you will find the various thicknesses and types of materials. Once you have the correct material setting, click 'open'.



18. The settings for your material will now have loaded, simply click 'OK'



TROUBLESHOOT CHECK

If your material is not available within the database, please speak to a member of staff as that material may not be laser safe.

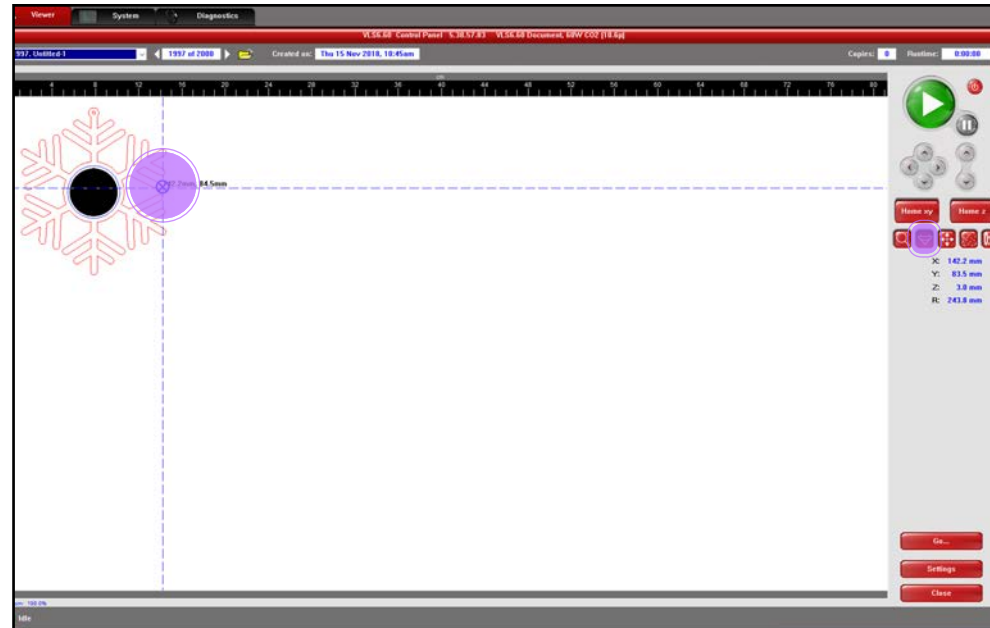
19. With the correct settings loaded you can now get an accurate time scale for your job. Click the time icon, followed by start.



20. If you need to move your artwork to better fit your material use the 'relocate' button. Once clicked, either enter X/Y dimensions or click and drag your artwork [a bounding box will appear around your artwork].



21. To check that the laser will reach all areas of your material you can use the 'focus' button. With the button selected, a crosshair will appear on the screen. Wherever you double click the laser head will move to that co-ordinate. It is best to check the edges of your artwork and make sure the material and laser line up.



22. The file is now ready to be cut. Ensure the extractor is turned on prior to sending the file through. The central button will turn it on.



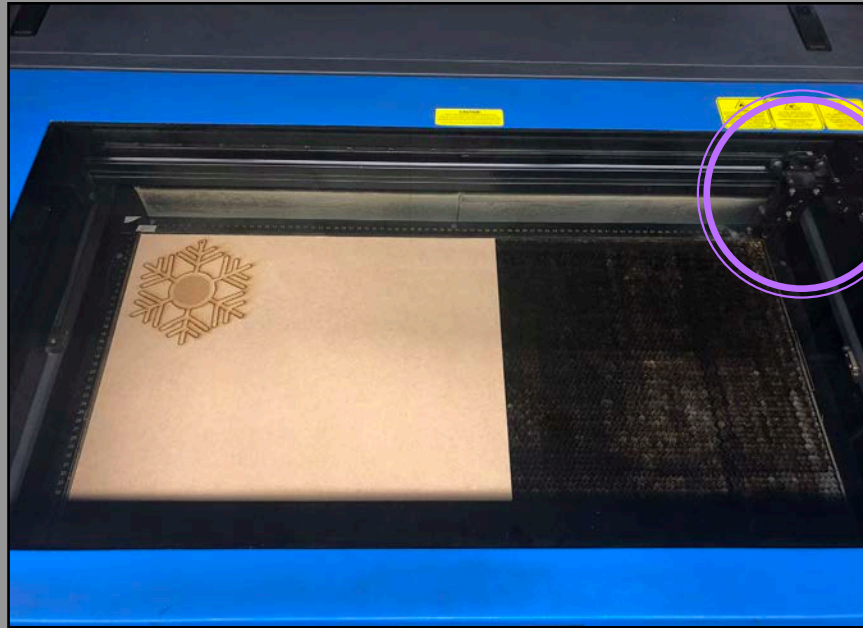
23. When ready, click the large green 'play' button.



24. The laser cutting will commence. The order of processes are 'raster' - 'score' - 'cut'. Please ensure you are present and FULLY ATTENDING the laser cutter whilst cutting is in progress, DO NOT leave the area.



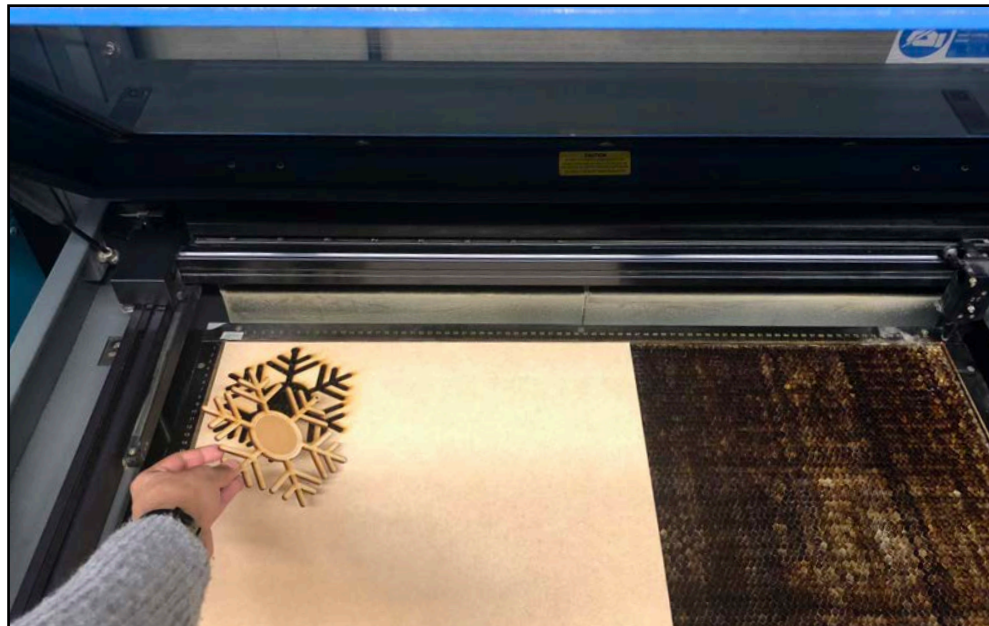
25. Once the laser head returns to the upper right corner, you know your job is complete.



H&S CHECK

Please let the extractor run for at least 1 minute before removing your artwork and turning it off.

26. Open the lid, and carefully check that the pieces have fully cut through and you are fully satisfied with the finish. If the material is moved around it will be very difficult to re-cut or amend any areas. If you are satisfied, remove your work and ensure the laser bed is left clear of any debris.



26. To turn the extractor off simply press the central button again.

