

HUMPHREY'S HANDY HINTS FOR :-

Preparing files for the laser cutter with AutoCAD

Please follow the procedures given below when preparing files to be output on the Department of Architecture laser cutter.

Creating the drawing

1. In AutoCAD, draw a 720 x 420 mm bounding box. This represents the “paper” size of the laser cutter.
2. Create your drawing within the bounding box at the required scale.
3. Colour-code the lines/objects as follows:
 - Red:** instructs the cutter to cut
 - Blue:** instructs the cutter to draw
 - Black solid fill:** instructs the cutter to etch
4. Make sure all lines have a weight of zero.
5. Check for and delete duplicate lines (see below).
6. Plot the drawing to Adobe PDF at the correct scale. Choose ISO A1 for the paper size.
7. Open the PDF file in Adobe Illustrator and save as an Illustrator EPS file, making it compatible with Illustrator v8 and later.
8. Copy the file to a memory stick and take to the Architecture Workshop.

Removing duplicate lines

In AutoCAD

Note: this command is only available if Express Tools are installed.

1. From the Express menu, choose Modify>Delete duplicate objects or enter Overkill at the command line.
2. Select objects and press Enter.
3. In the Overkill dialogue box, specify options as required and click OK.

In Illustrator

Duplicate lines must be removed manually.

Notes on materials

The laser is designed to cut thin materials:

- The bed size is 720 mm by 420mm.
- All lines must be hairline, i.e. zero weight.
- Red is for cutting.
- Blue is for drawing.
- Black solid is for etching (a blue outline makes it look sharper).

Recommended materials

- Mount board, card or paper.
- Thin white ply up to 3.5 mm (Powell's supply this or go to a model shop for very thin material).
- Acrylic, also known as Plexiglas, up to 5mm maximum. **Note:** not clear polystyrene.(purchase from Wickes, Hindleys, 4d model shop etc.)
- MDF up to 3mm thick and shiny on both sides is best. Do not buy the buff stuff.
- Other materials such as foam board are OK.