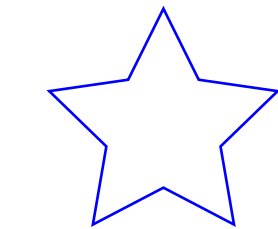
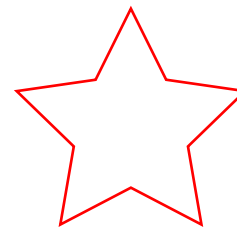


PREPARING YOUR FILE (ILLUSTRATOR)

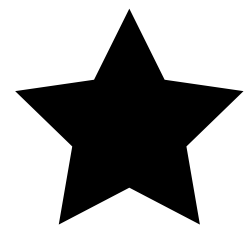
1. Make sure your color mode is set to **RGB**
(File > Document Color Mode > RGB Color)
2. Set 'Stroke Color' to the correct settings
(0, 0, 255 - Blue)
(255, 0, 0 - Red)
(0, 0, 0 -Black)
3. Set 'Stroke Weight' to '0.001pt'
4. Set 'Brush Definition' to 'Basic'
5. Set 'Variable Width Profile' to 'Uniform'
6. If you have text in the file, select it, select **Type > Create Outlines**



Vector Cutting



Vector Engraving



Raster Engraving

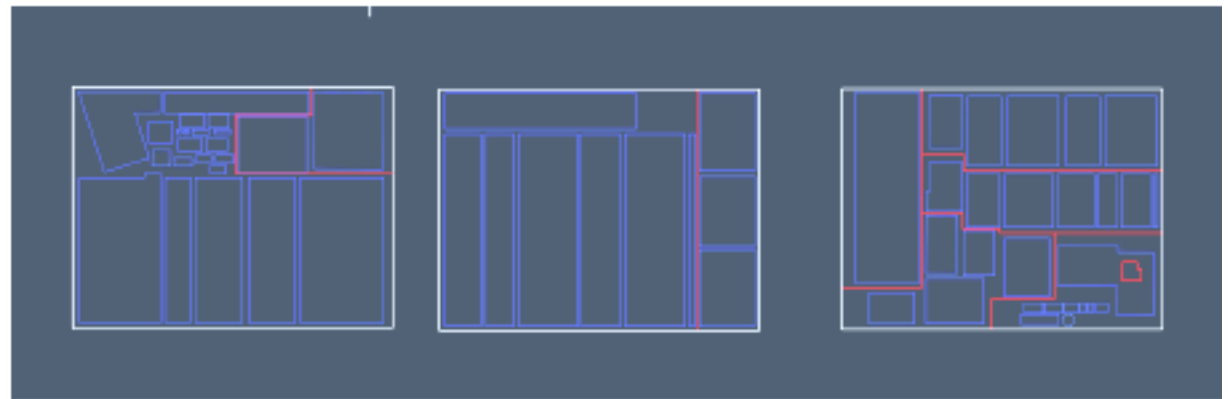
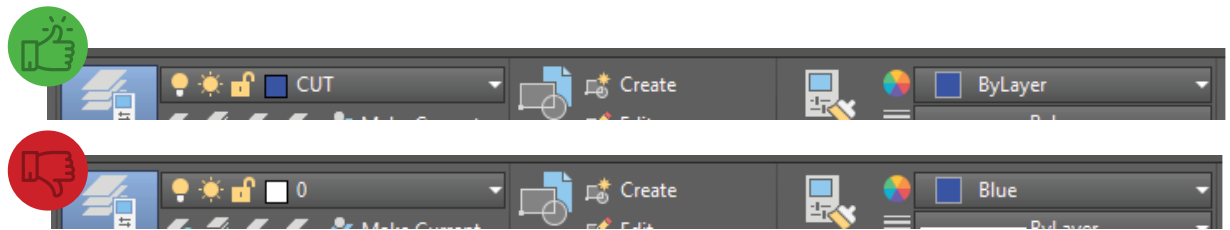
“Lorem ipsum”



PREPARING YOUR FILE (AUTO CAD)

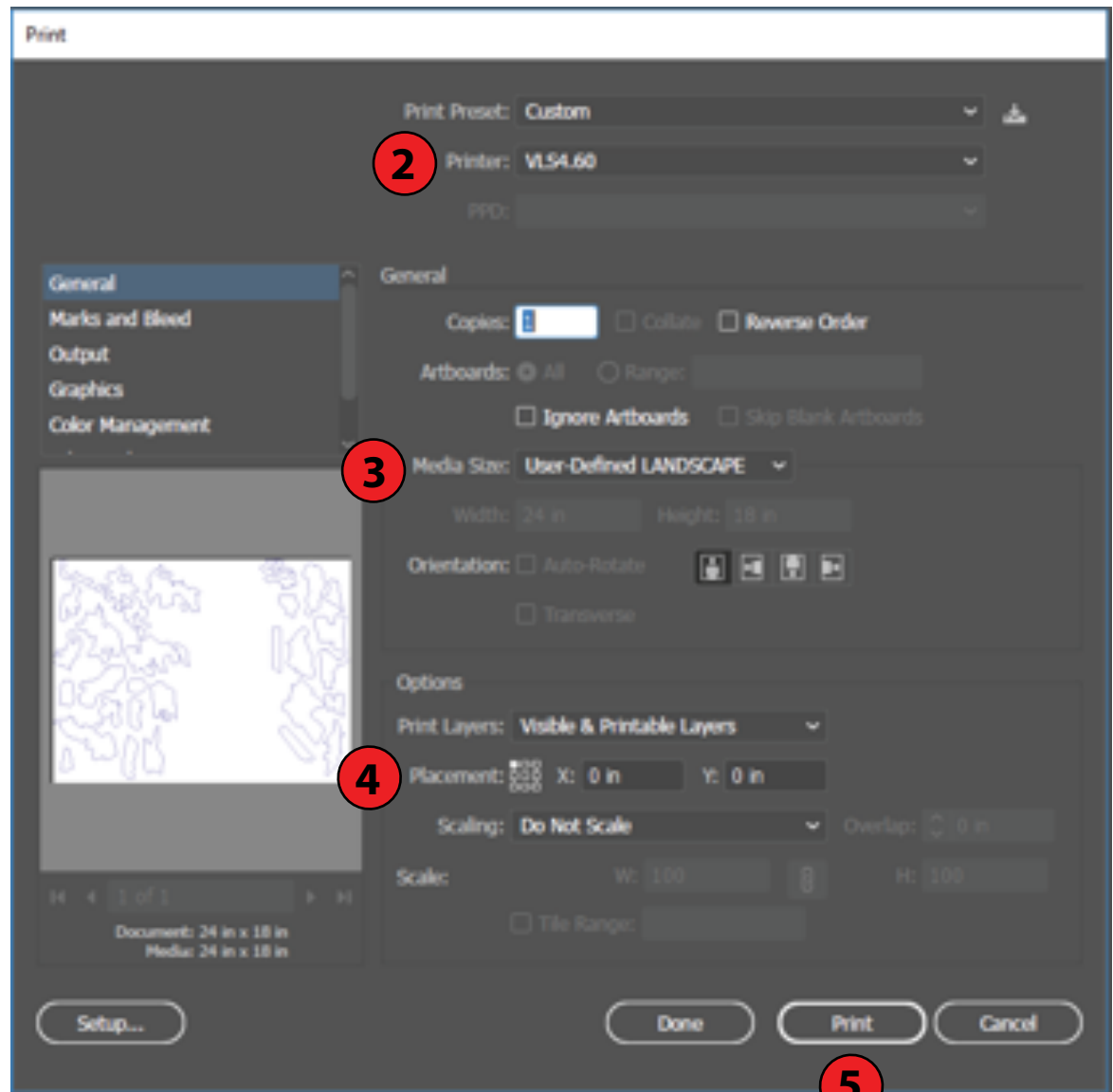
1. Arrange the layers in your file as you see to the right, i.e. separate your **cuts**, **etchings**, and **rasters** on to individual layers.
2. Create a 24"x18" (if at 1:1 scale) rectangle on the white layer - this will represent the available space on the laser cutter
3. Place all cut, etching, and raster items inside the white rectangle
4. All layers should have a Linetype of 'Continuous' and a Lineweight of 'Default'

Status	Name	On	F	Lock	Plot	Color	Linetype	Lineweight
✓	0	☑	☑	🔒	🖨️	white	Continuous	Default
	CUT	☑	☑	🔒	🖨️	blue	Continuous	Default
	ETCH	☑	☑	🔒	🖨️	red	Continuous	Default
	RASTER	☑	☑	🔒	🖨️	0,0,0	Continuous	Default



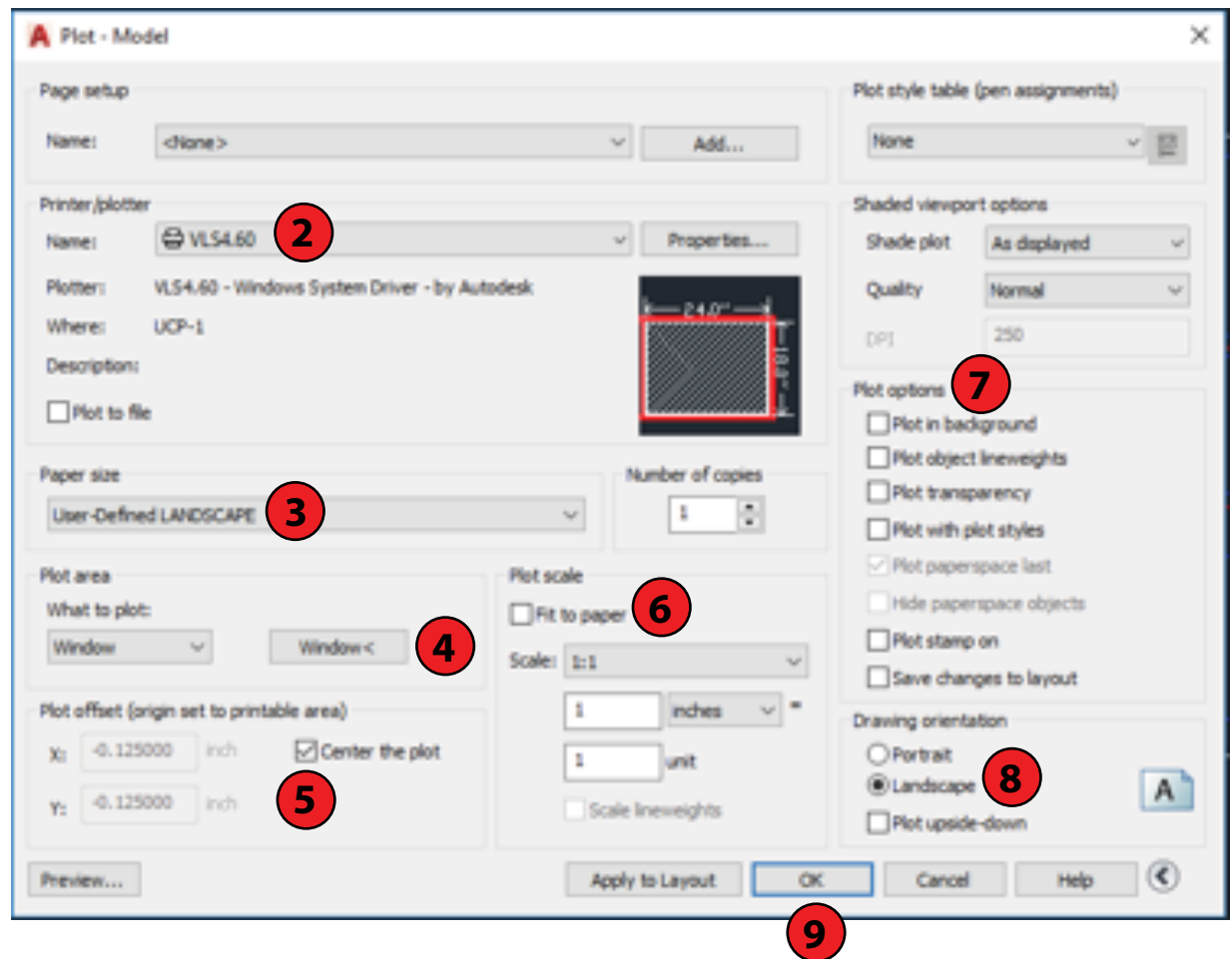
SENDING TO THE PRINTER (ILLUSTRATOR)

1. Select 'Print'
2. Set 'Printer' to 'VLS4.60'
3. Set 'Media Size' to 'User-Defined LANDSCAPE'
4. Move your design on the printer bed manually, or by using the 'Placement' buttons, if necessary
5. Press 'Print'
6. Open 'Universal Laser Systems Control Panel' by clicking on the **red icon** in the bottom right corner of the screen



SENDING TO THE PRINTER (AUTO CAD)

1. Plot the file
2. Set 'Name' to 'VLS4.60'
3. Set 'Paper Size' to 'User-Defined LANDSCAPE'
4. Select 'Plot Area' by using the 'Window' function
5. Select 'Center the plot'
6. **Uncheck** 'Fit to paper' and select scale to match your file
7. **Uncheck** all 'Plot Options'
8. Select 'Landscape'
9. Press 'OK'
10. Open 'Universal Laser Systems Control Panel' by clicking on the **red icon** in the bottom right corner of the screen



CHOOSING MATERIAL SETTINGS

1. Select 'Settings'
2. Select 'Manual Control'
3. Select 'Load'
4. Select material and thickness that best suits your project.
5. Select 'Open'
6. Select 'Apply'
7. Select 'OK'

Note: If you think you need to change power or speed settings, please **speak to a Tech**

The image illustrates the process of selecting material settings in a laser engraving software. It is divided into three main sections:

- Settings Dialog (1):** A vertical sidebar containing a 'Settings' button (1) and a 'Close' button.
- Manual Control Window (2):** A window titled 'Manual Control' with a 'Materials Database' tab. It features a table of material settings and sliders for Power, Speed, PPI, and Z-Axis. The table is as follows:

Color	Mode	Power	Speed	PPI	Z-Axis
Black	Rast	20.0%	100%	500	Off
Blue	RastVect	10.0%	3.1%	1000	Off
Red	RastVect	10.0%	25%	500	Off

Below the table are sliders for Power, Speed, PPI, and Z-Axis. To the right, there are 'Medi:' and 'Z-Axis:' dropdown menus. A 'Load' button (3) is visible at the bottom right of this window.
- File Explorer (4):** A 'Load Engraver Settings' window showing a file explorer view of 'NEW Laser Cutter Machine Profiles'. A list of files is displayed, including 'Acrylic_1_4.as', 'Acrylic_1_8.as', 'Acrylic_1_16.as', 'Bamboo_1_16.as', 'Bessewood_1_4.as', 'Bessewood_1_8.as', 'Bessewood_1_16.as', 'Bessewood_1_32.as', 'Bessewood_1_16.as', 'Bessewood_1_32.as', 'Bristol.as', 'ButterBoard_1_16.as', 'ButterBoard_1_32.as', 'Canvas.as', 'Cardstock_300.as', 'Chipboard_1_8.as', 'Chipboard_1_16.as', 'Chipboard_1_32.as', 'Cork_1_8.as', 'Corrugated Cardboard_1_4.as', 'CorrugatedCardboard_1_8.as', and 'Craft Plywood_1_4.as'. A 'Load' button (6) is highlighted in red. Below the list, there are 'Open' and 'Cancel' buttons (5).

SETTING UP THE MACHINE

1. Turn on the compressor

2. **Remove** any extra paper/coating on your material

3. Place your material on the bed

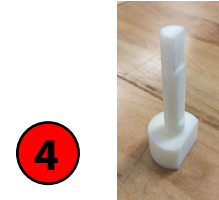
4. **Focus the laser** on the material by moving the bed up or down using the **Z-buttons** on the front of the machine. The **focus tool** should sit comfortably between the material and the laser (see image on right)

Note: If necessary, use the 'Focus Button' on the Printer Control Panel (see next page) to manually move the laser to a position on top of your material

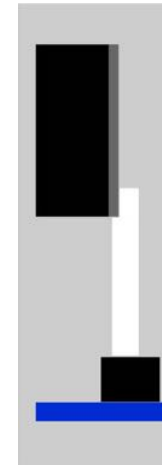
5. **Return** the focus tool to it's original position



Focus Tool



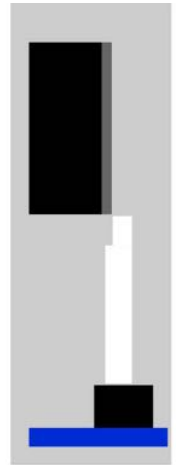
Z-buttons



Correct



Too close



Too far

5



PRINTER CONTROL PANEL

Play Button

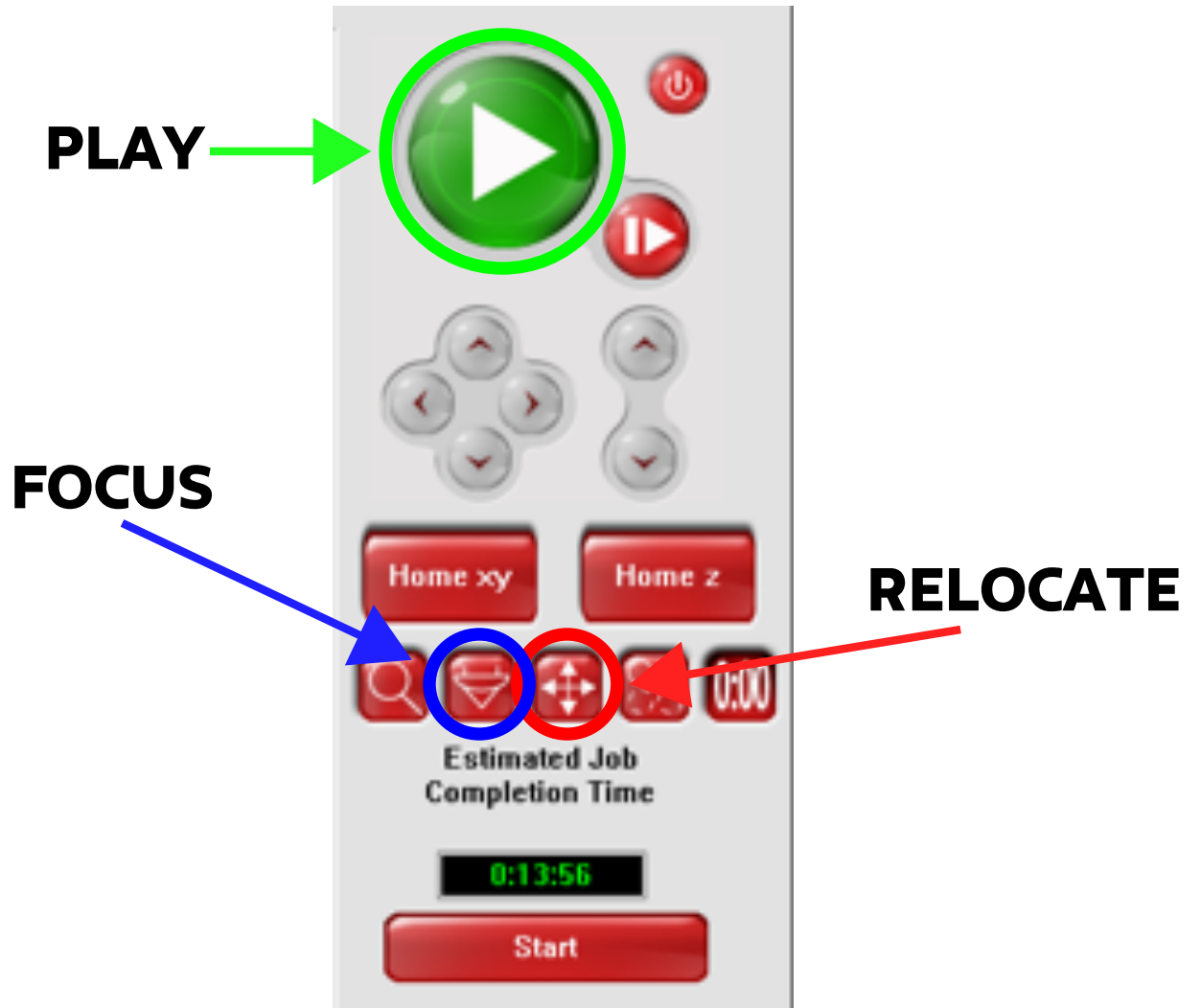
- Run the machine

Focus Button

- Moves the laser head manually

Relocate Button

- Move your design manually




FREQUENTLY ASKED QUESTIONS

1. How do I know if the laser has cut through my material?

a. Try to lift the cut out parts with some tape so as to not move the material. If it hasn't, DO NOT move the material and press play again.

2. My lines in Illustrator wont stay 0,0,255 Blue (they stay a different kind of blue, or stay black)?

a. Make sure your Document Color Mode (File > Document Color Mode) is 'RGB Color'. If it is and it's still not working, have your lines selected, go to Window > Color, select the drop-down menu icon  on the Color Panel, select 'RGB'.

3. Can I raster engrave in grayscale?

a. Yes. The black (0,0,0) parts of your grayscale image will raster at full power, anything in the grayscale will raster with power according to how close to black it is.



no power  full power engraving

4. I can't choose 'Uniform' as the 'Variable Width Profile', that area is grayed out.

a. Have your line selected, change your 'Brush Definition' off 'Basic', then change it back on to 'Basic', then 'Uniform' will appear...we don't know why this works, it just does. However, this will change your 'Stroke Weight' to '1pt' so remember to change it back to '0.001 pt'.

5. Some of my lines aren't appearing on the Laser Control software.

a. Speak to a tech. Filters, Clipping Masks, Opacity settings and other file adjustments can cause artwork to disappear on the laser control software. Otherwise, someone might have just 'Skipped' that line color while previously using that computer.

6. How do I manually change speed and power settings, or skip a color?

a. While choosing your material settings, after you have chosen a material and thickness but before you have pressed 'Apply' and 'OK', select the color you want to change or skip, change power/speed settings or select 'Skip' from the 'Mode:' drop-down menu, select 'Set', select 'Apply', select 'OK'.

**READ ME
TO PRINT**

**IF THE LASER DOES NOT CUT
THROUGH:**

1. DO NOT MOVE THE MATERIAL

2. PRESS PLAY AGAIN