

SoA+D FAB LAB
Laser Cutter/Engraver
Manual



Address

www.soadfab.com

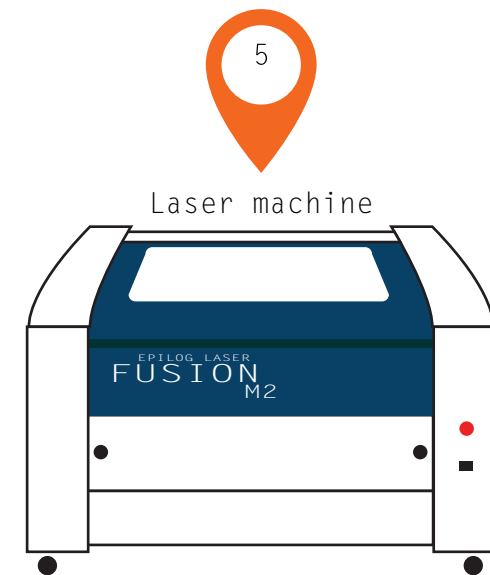
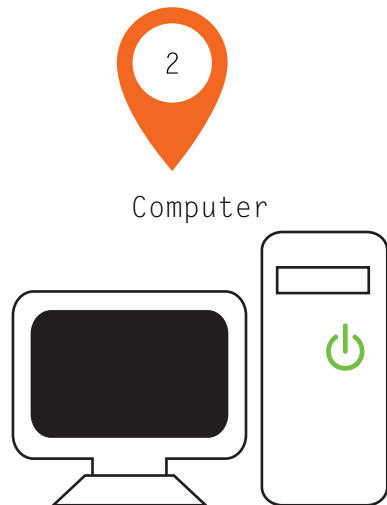
CONDITION OF USE



1. Only users who are registered and have completed the related training may use the lab equipment.
2. Users must stay inside the lab space at all times when machines are in operation.
3. Users must sign in and sign out at the provide sheet for each use of lab equipment.
4. Users are responsible for the safe and responsible operation of lab equipment.
5. Only approved materials may be used with lab equipment.
6. Material that happen to be PVC base not allowed to used.
7. Users must report all problems with the lab equipment and/or space to lab assistances.
8. Users are responsible for maintaining a clean working environment.
9. Materials and research components are not to be stored inside the lab space
10. Failure to abide by these rules will result in restriction of lab access.

USE THE LASER CUTTER EQUIPMENT SETUP

1. Turn on UPS power supply
2. Turn on Computer workstation
3. Turn on Extraction unit
4. Turn on Air Assit Compressor
5. Turn on Laser machine



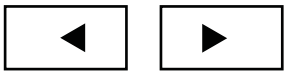
USE THE LASER CUTTER EQUIPMENT SETUP 2

Turn on UPS power supply

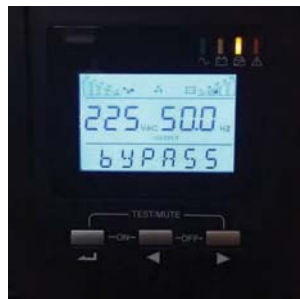
By press and hold these two button for 5 second



For turn off press and hold these two button for 5 second



ON



Off

Turn on Smoke extraction

By press middle button light up when ON press again to turn off



ON



Off

Turn on Laser machine

By flip the switch under the emergency button to “-”



BEFORE USE [Focus the laser head]

Everytime before use the laser must focus the laser head first

WHEN TO FOCUS

1. Everytime before use,
2. Everytime when change the materials,
3. Everytime when change the thickness.

HOW TO FOCUS

1. Put the focus fork to the laser head
2. Go to Panel then press the down arrow to "Focus".
3. Move the stick up until the material touch the focus fork.
4. Move arrow back to "Job".
5. Ready to use.



Up arrow



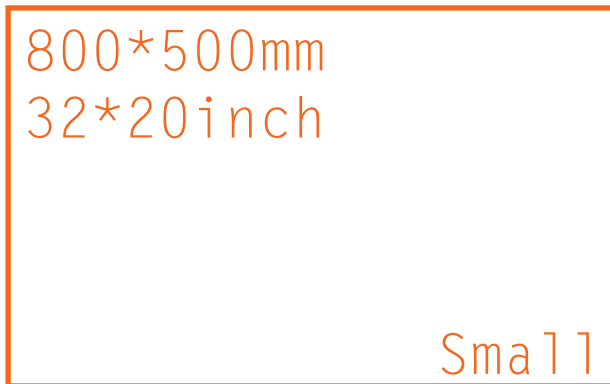
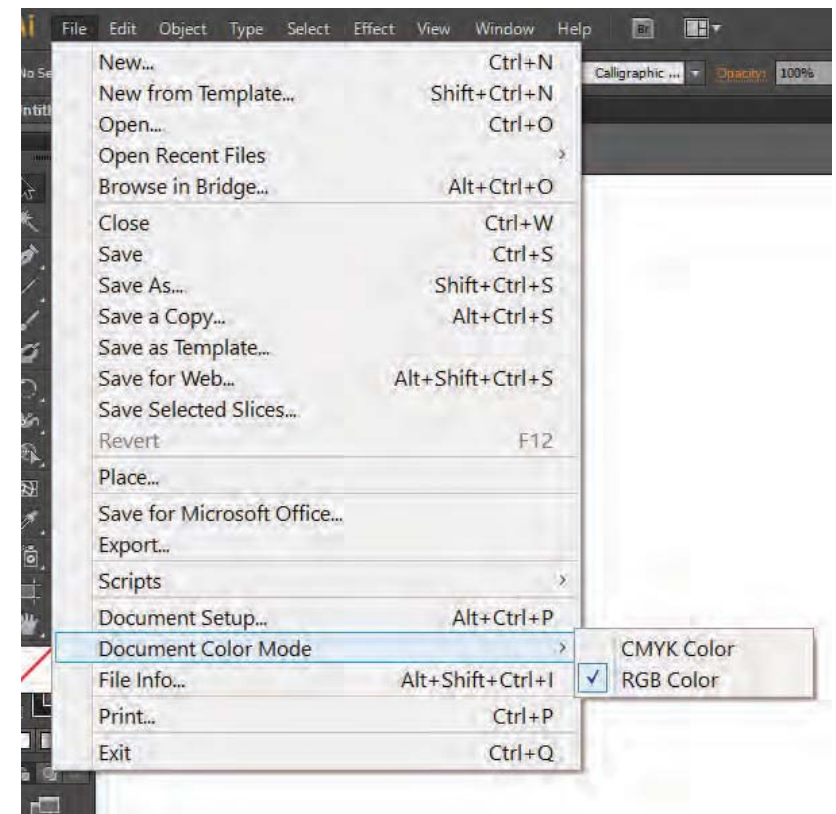
Stick

Down arrow

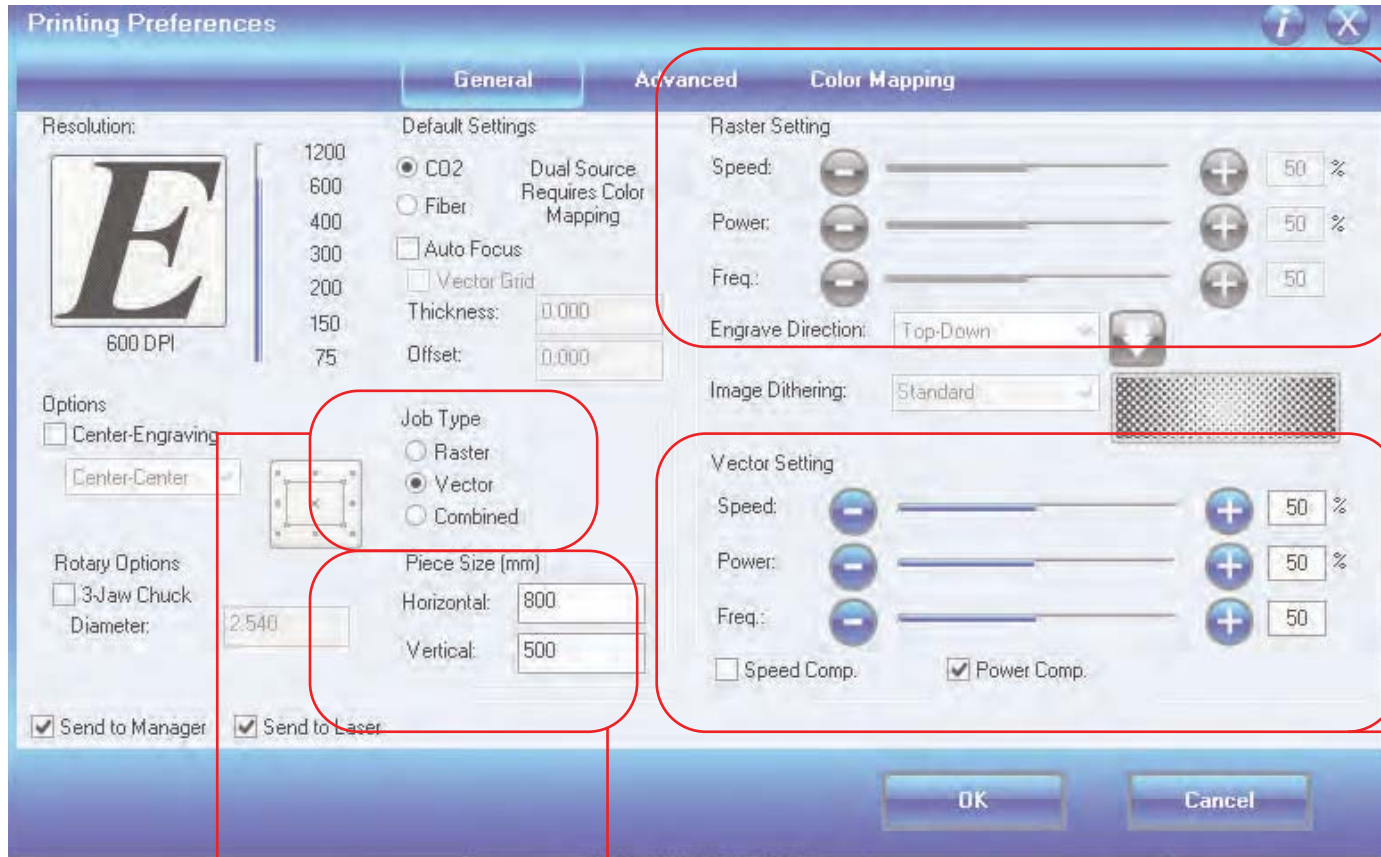


DOCUMENT SETUP

1. Change the document color mode from CMYK to RGB goto
File > Document Color Mode > Change to RGB
2. For cutting set stroke weight to “0.015pt”
3. Set working area Or Artboard
 - Small size Horizontal -800mm/ 32inch
Vertical -500mm/ 20inch
 - Large size Horizontal -1000mm/ 40inch
Vertical -700mm/ 28inch



EPILOG MENU



Raster/Engrave setting
-Speed -How fast laser head run.
-Power -Power of laser.

Vector/Cut setting
-Speed -How fast laser head run.
-Power -Power of laser.

Job type
-Raster -engrave only
-Vector -cut only
-Combined -Both

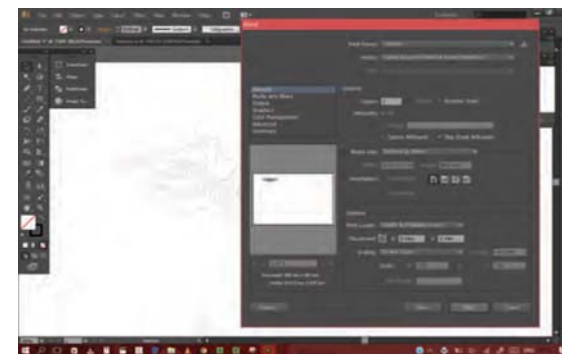
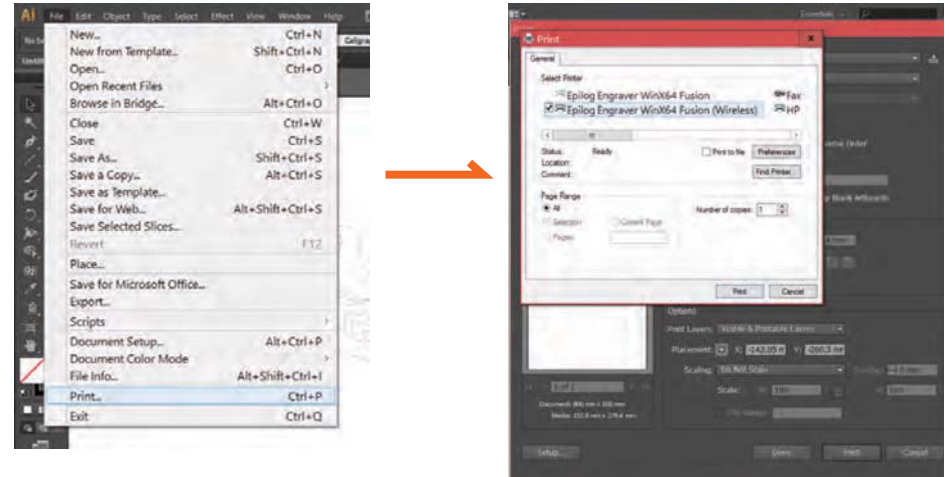
Piece size
the sizing of working area

SENT TO PRINT [VECTOR (CUTTING)]

1. set stroke weight to “0.015pt”.
2. Goto File>Print or “Ctrl+P”.
3. Choose Setup to choose the laser then click Preference.
4. choose General
 - 4.1 Job Type choose Vector
 - 4.2 Piece Size (work area)
 - Small size Horizontal-800mm/32inch
Vertical-500mm/20inch
 - Large size Horizontal-1000mm/40inch
Vertical-700mm/28inch
 - 4.3 Vector Setting set speed & power depend on your material & your work
 - 4.4 press “ok”
5. Go to Placement and choose the top left square to place the work in top left of working area.
6. Press “Print”

NOTE


-If you want to cut the line but not go through the material you can do it by reduce Power and increase Speed in Vector Setting like “Low Power Vector”

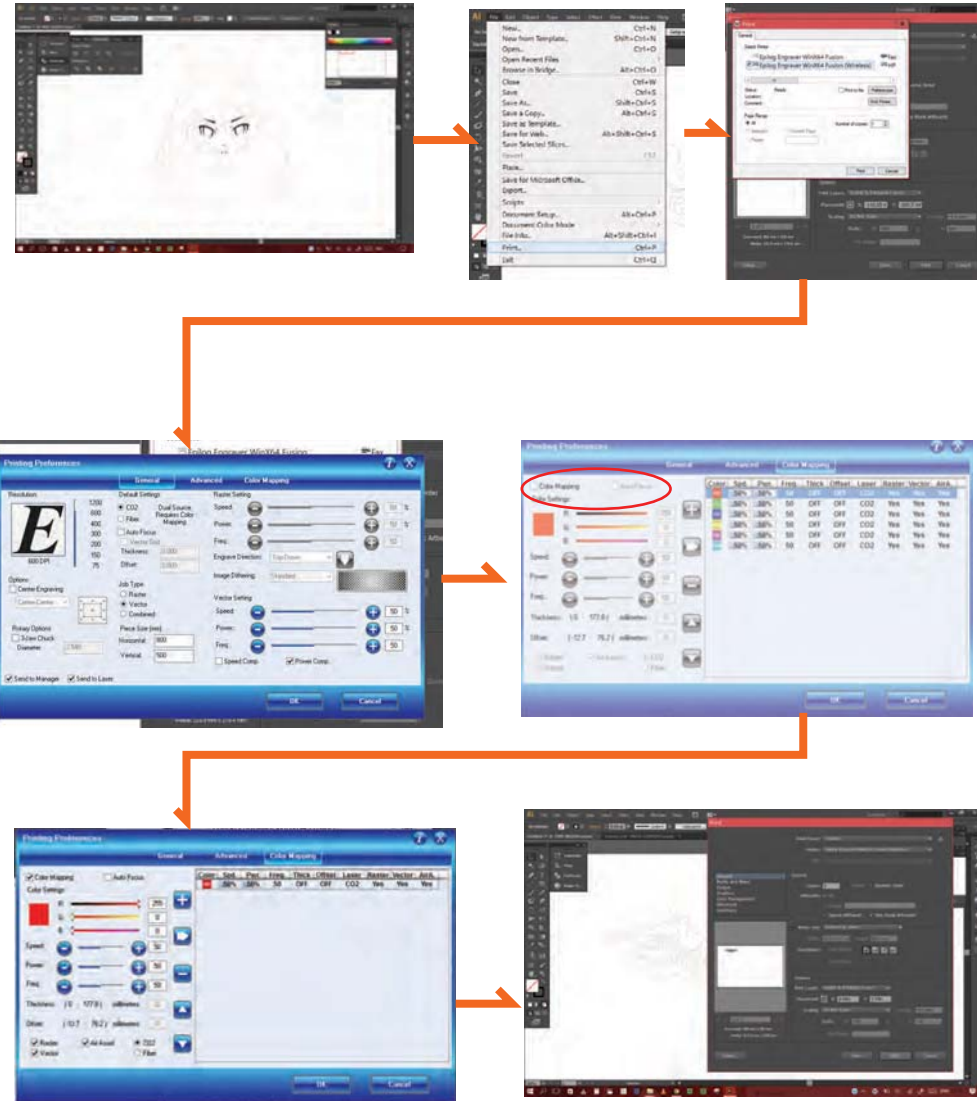


SENT TO PRINT [COLOR MAPPING]

NOTE

- The black color is reserved for cutting and CANNOT change it
- You can mixed between Vector&Vector or Vector&Raster

1. Set stroke weight to “0.015pt”.
2. Set color line for example
IN RGB CODE ONLY
 - Red line - ff0000 or R255 G0 B0
 - Black line - 000000 or R0 G0 B0
3. Goto File>Print or “Ctrl+P”.
4. Choose Setup to choose the laser then click Preference.
5. choose General [for set Black line]
 - 5.1 Job Type choose Vector
 - 5.2 Piece Size (work area)
 - 5.3 Vector Setting set speed & power depend on your material & your work
 - 5.4 press “ok”
6. go to Color Mapping
 - 6.1 Choose color mapping
 - 6.2 Set color to match your Red line in here is R255 G0 B0
 - 6.3 Set Speed & power of Red line
 - 6.4 press 
 - 6.5 press “ok”
7. Go to Placement and choose the top left square to place the work in top left of working area.
8. Press “Print”

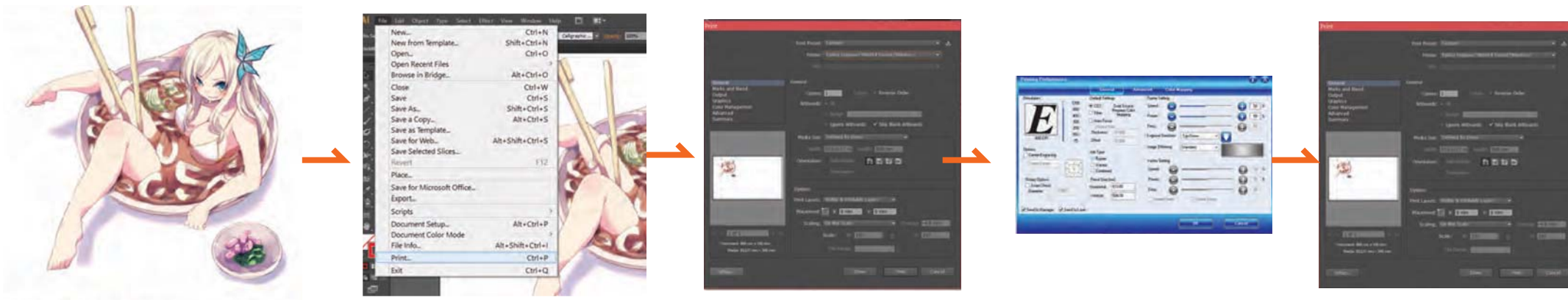


SENT TO PRINT [RASTER/ENGRAVE]

1. set the document color to RGB.
2. Choose the picture
3. Goto File>Print or “Ctrl+P”.
4. Choose Setup to choose the laser then click Preference.
5. choose General
 - 5.1 Job Type choose Raster
 - 5.2 Piece Size (work area)
 - 5.3 Raster Setting set speed & power depend on your material & your work
 - 5.4 press “ok”
6. Go to Placement and choose the top left square to place the work in top left of working area.
7. Press “Print”

NOTE

-Cannot calculated the depth of engrave
-The machine will saw it in grey scale that mean the darkest color[in the image] will be the deepest.



MATERIAL TABLE

for Vector setting

MATERIALS type	THICKNESS MM.	SPEED Laser head	POWER Laser
PAPER Chan Aoi	1 - 2	50	65
WOOD MDF board	1 - 2	20	85
	3	10	90
ACRYLIC	1	30	70 - 75
	2	15	90
	3	10	90

WARNING

**OTHE MATERIAL MUST BE TEST AND APPROVED
BY THE LAB STAFF FIRST**

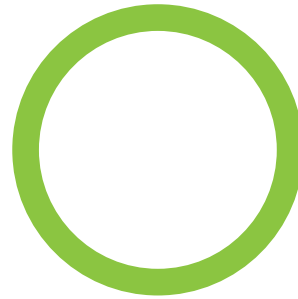
LASER TIPS

BEFORE USE [Place the Materials]

ALWAYS PLACE MATERIALS IN TOP LEFT CORNER OF THE WORKING AREA



Small Machine



Small Machine



Large Machine



Large Machine