

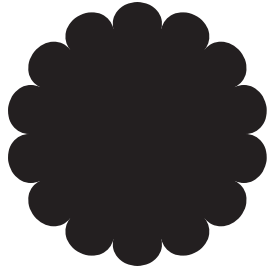
Graphtec Flatbed Plotter/Cutter



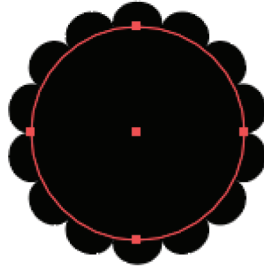
GETTING YR FILES READY

In Illustrator, check file to make sure paths correspond to what you want cut

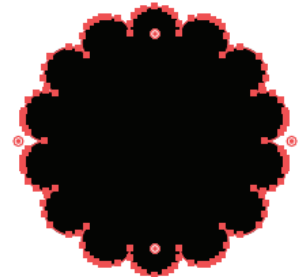
What we see



What the plotter sees

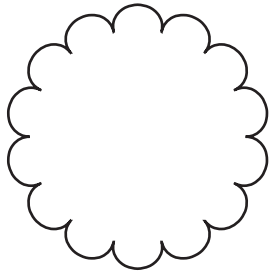


What we want cut



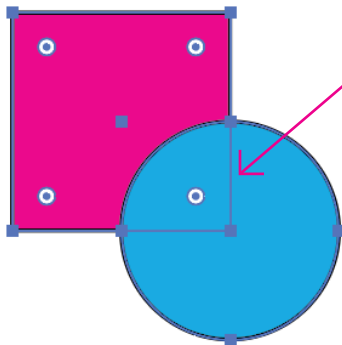
Make stroke black, size 1mm

Make fill [none] 

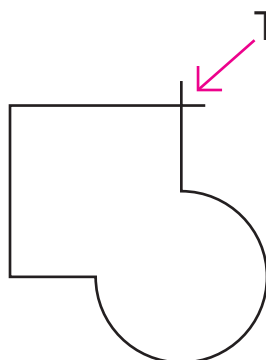


If you have overlapping paths or stray/random paths, the plotter will cut all those lines.

Make sure that what you want cut matches what your file says



This path is hidden, but it will show up when cut.



These stray path will be cut.

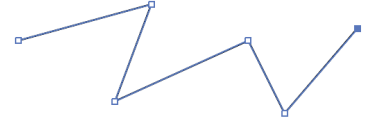
I L L U S T R A T O R

Quick guide to making paths for the plotter



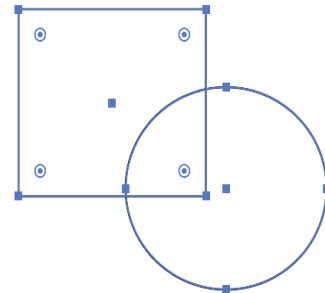
- Pen Tool (P)
- Anchor Point Tool (Shift+C)

Pen Tool



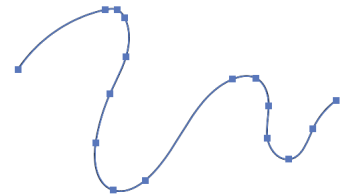
- Rectangle Tool (M)
- Ellipse Tool (L)
- Polygon Tool
- Star Tool
- Line Segment Tool (\)

Shapes



- Paintbrush Tool (B)
- Blob Brush Tool (Shift+B)
- Pencil Tool (N)

Pencil Tool



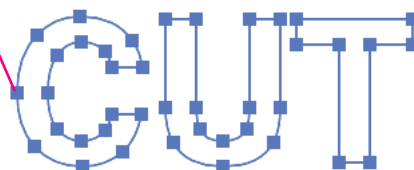
Type	Select	Effect	View	Window
More from Adobe Fonts...				
Font				▶
Recent Fonts				▶
Size				▶
Glyphs				
Convert To Area Type				
Area Type Options...				
Type on a Path				▶
Threaded Text				▶
Fit Headline				
Resolve Missing Fonts...				
Find Font...				▶
Change Case				▶
Smart Punctuation...				
Create Outlines				⇧⌘O
Optical Margin Alignment				
Insert Special Character				▶
Insert WhiteSpace Character				▶
Insert Break Character				▶
Fill With Placeholder Text				
Show Hidden Characters				⇧⌘I
Type Orientation				▶
Legacy Text				▶

Text can be converted to paths so one can cut out words.

Type what you want to be cut.

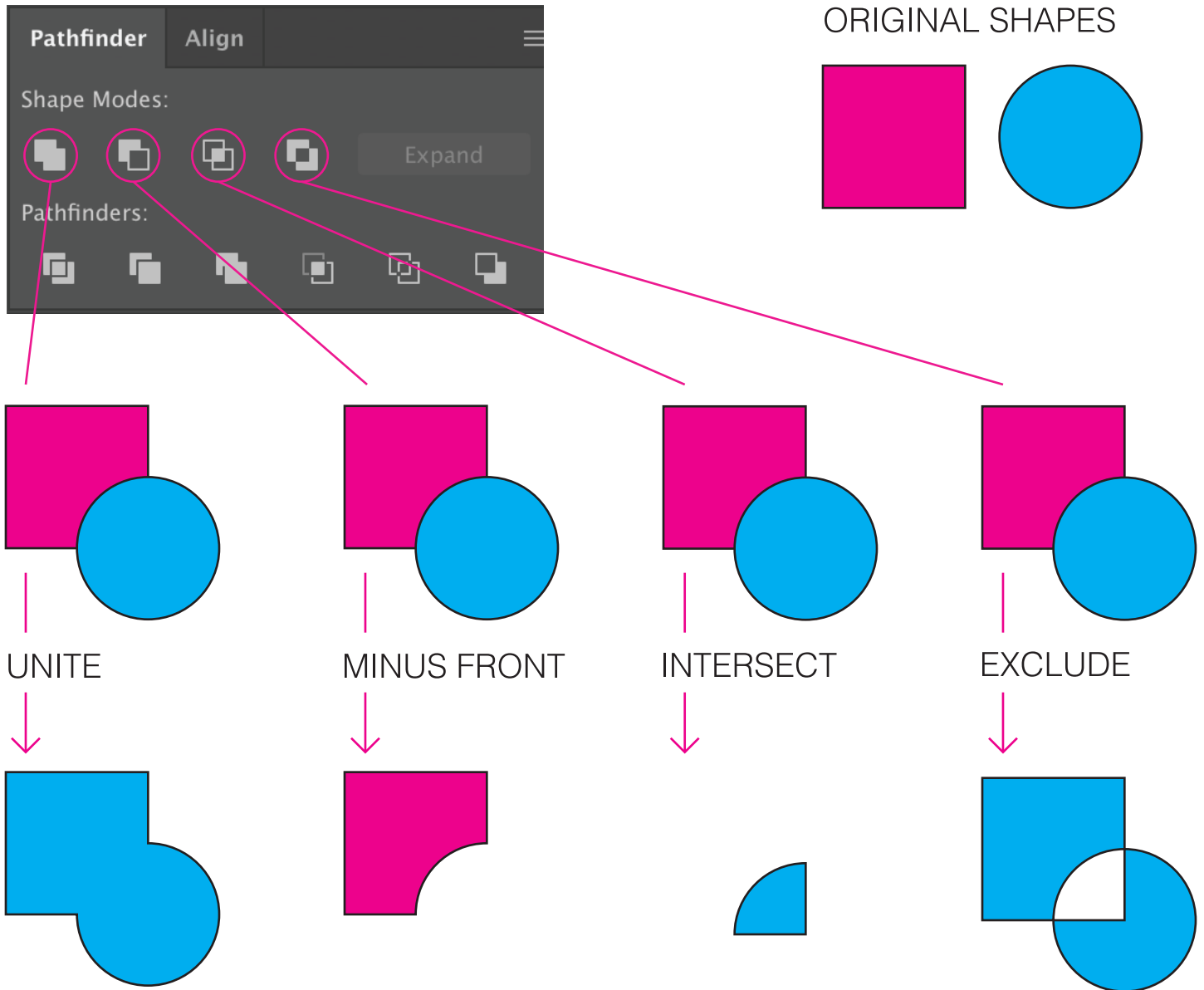
CUT

Select the text.
Go to Type and then
Create Outlines



TIPS 'N' TRICKS

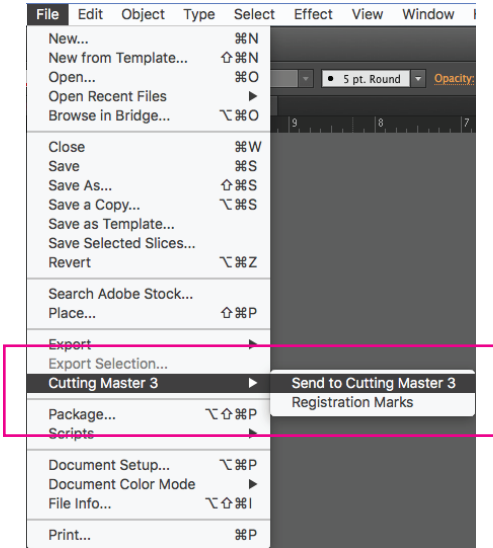
Using Pathfinder's Shape Modes allows one to alter two or more shapes into an array of shapes and designs. Pathfinder is located under the Window tab.



The black lines (Paths) are the lines that the plotter will cut

CUTTING MASTER 3

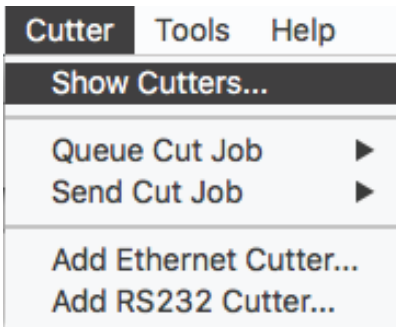
Go to file and select Cutting Master 3, then select Send to Cutting Master 3
If using registration marks, refer to that guide.




This will open Cutting Master 3 which is used to control the plotter.

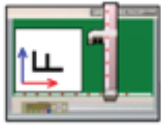
Under cutters, go to show cutter

This will open a toolbar on the right.



Cutters

FC2250-120 



FC2250-120 ...
Status: **Ready**

V4.40
Connected by: USB

1 2 3 4 5 6 7 8

Corresponds to the conditions 1 through 8.

Condition (FC2250-120)

Tool Type : CB30U



3.0mm Supersteel Blade for thick materials. Blade extends longer to allow for thicker material cuts.

 CB30U

Tool that is in the plotter

Offset 

Speed  cm/s

Acceleration 

Cut Force 

Displays the settings of the condition that is selected on the plotter

Cut Line Pattern

Style 1 

Passes

Passes 


Tangential Mode : Off

 Off  Mode 1  Mode 2

Distance Adjustment : Off

X 

Y 

 Advanced (FC2250-120)

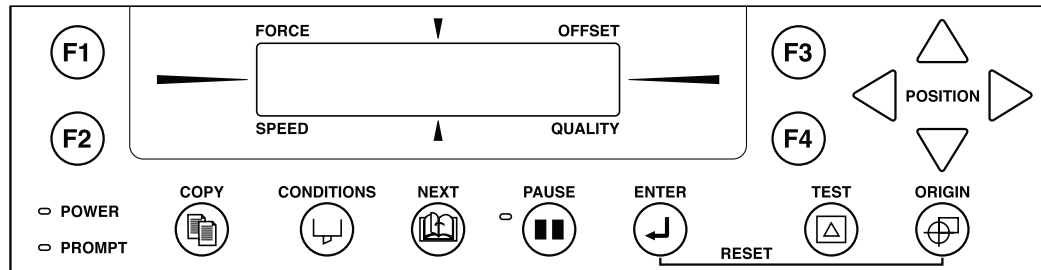
 Test Cut

Always double check to make sure your settings in this toolbar match your settings on the plotter.

FLATBED PLOTTER

GRAPHTEC FC2250

30" X 40" USABLE BED | CUT, SCORE, PERFORATE, DRAW | FOLLOWS PATHS
MADE FOR MATERIALS LESS THAN .118"/3MM THICK





THE EIGHT SETS OF CONDITIONS (or settings)

- F1 condition 1 — pressed twice = condition 5 (F5)
- F2 condition 2 — pressed twice = condition 6 (F6)
- F3 condition 3 — pressed twice = condition 7 (F7)
- F4 condition 4 — pressed twice = condition 8 (F8)

CONDITIONS

 allows adjustment of each condition

TEST
 runs a test of the selected condition

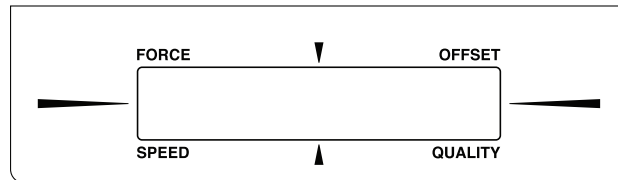
ORIGIN
 moves arm back to origin point

 allows you to scroll through options on the screen

SETTING CONDITIONS

Always start low and adjust to a higher pressure, speed, etc.

There are four settings in each condition:



FORCE — How much pressure OFFSET — What tool you are using
SPEED — How quick QUALITY — How fine

CONDITIONS



Select the conditions you would like to change and press conditions button.
In this menu, F1 through F4 refer to a specific setting



Force — Input force for X (left to right) and Y (up and down)
Range for tool 1 (1-40), range for tool 2 (2-80, increments of 2)



Speed — 1 to 10 and then 15-40 in increments of 5.
Speed is in cm/s



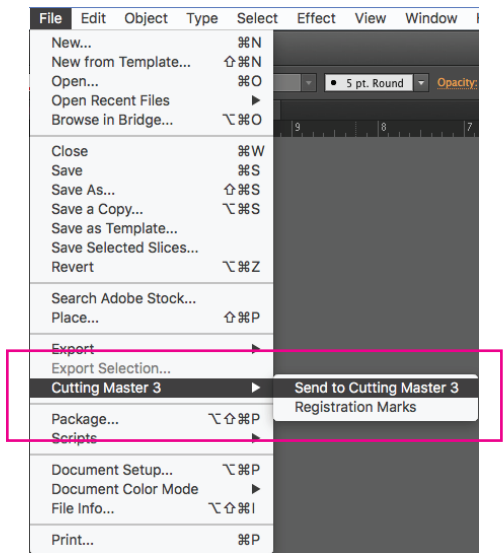
Offset — Sets kind of tool you will be using.
We have multiple kinds of tools for cutting, creasing, drawing, etc.




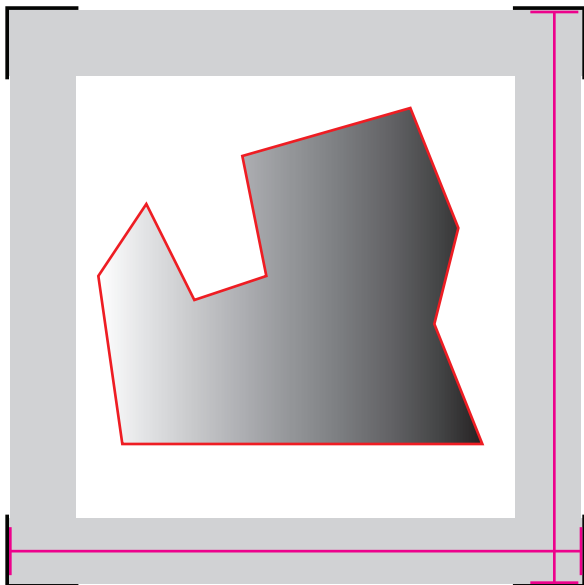
Quality — 1 to 6, smaller the number, the finer the quality.


R E G I S T R A T I O N

Image and paths ready to cut, go to file, Cutting Master 3, and select registration marks.



This will place  marks around your cutting area. You can adjust placement if needed. Make sure that your image does not interfere with the registration marks.



Make sure stroke is set to [none]  or it will print onto your image.

Save file with registration marks in Illustrator.
When ready, print the image with the registration marks.

REGISTRATION CONT.

Open your image in Illustrator and remove all paths that you don't want cut.
Send file to plotter via Cutting Master 3.

Make sure strokes are correct and registration marks are present.

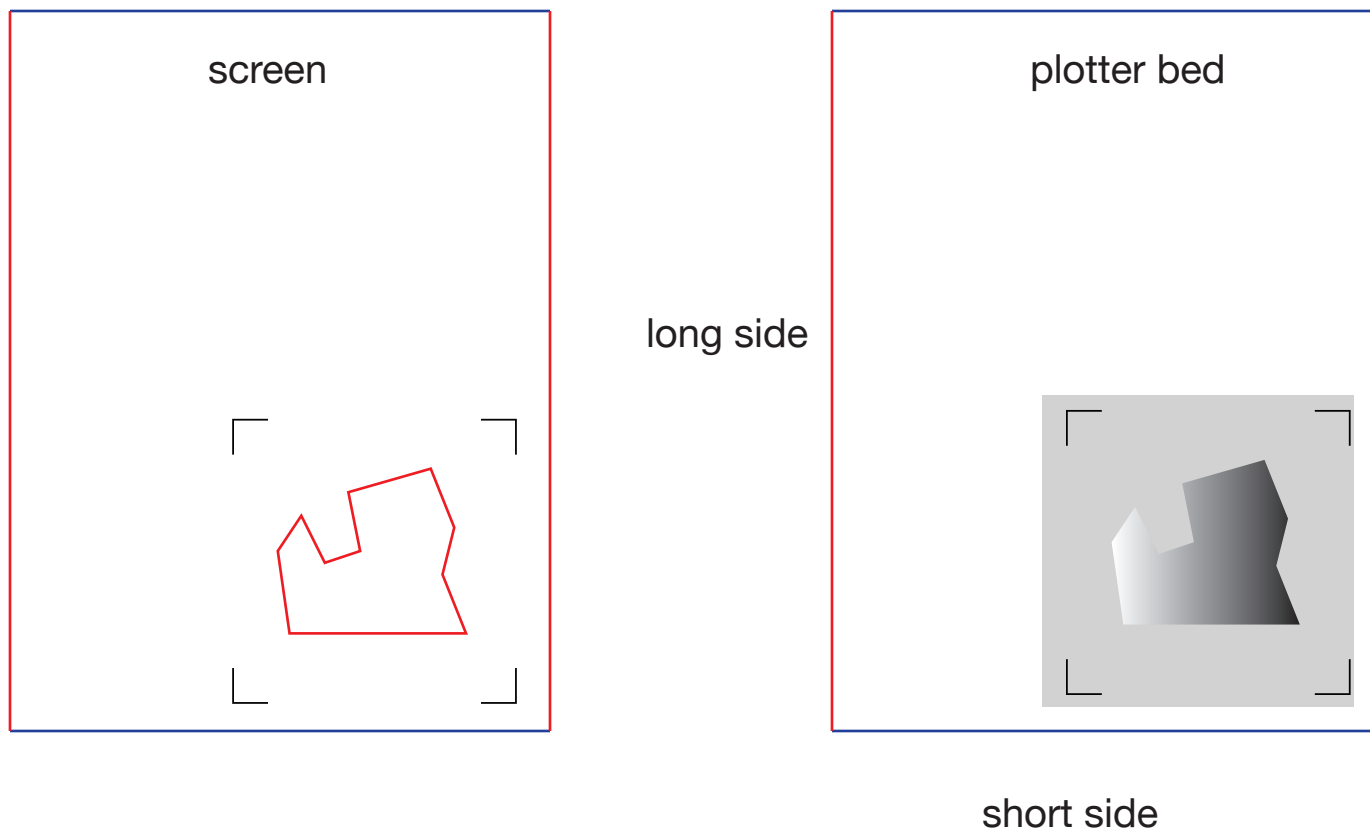
Place material on plotter bed.

Turn on vacuum table and make sure material is held down.

Check settings and orientation of image in relation to your printed image and send file when ready.

The arm will check registration again and then start cutting.

Orientation of cut on screen and material placement match.



M U L T I P L E T O O L S

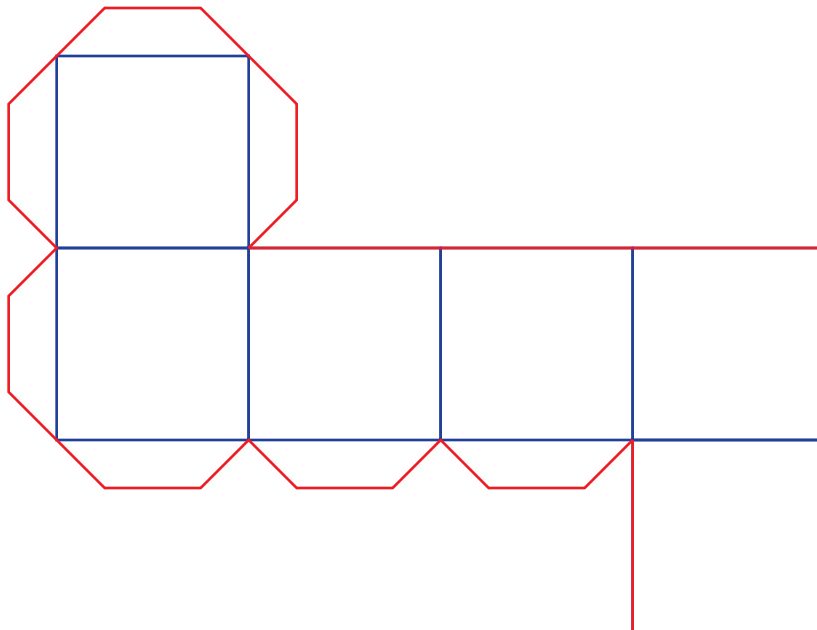
This allows you to run multiple tools on one job.

- Cut and crease; cut and draw; draw and crease

We need to tell the plotter what lines are different from each other.
To do this, we designate different tools with different colors.

I want to make a box with tabs that I can fold and assemble into a 3D object.

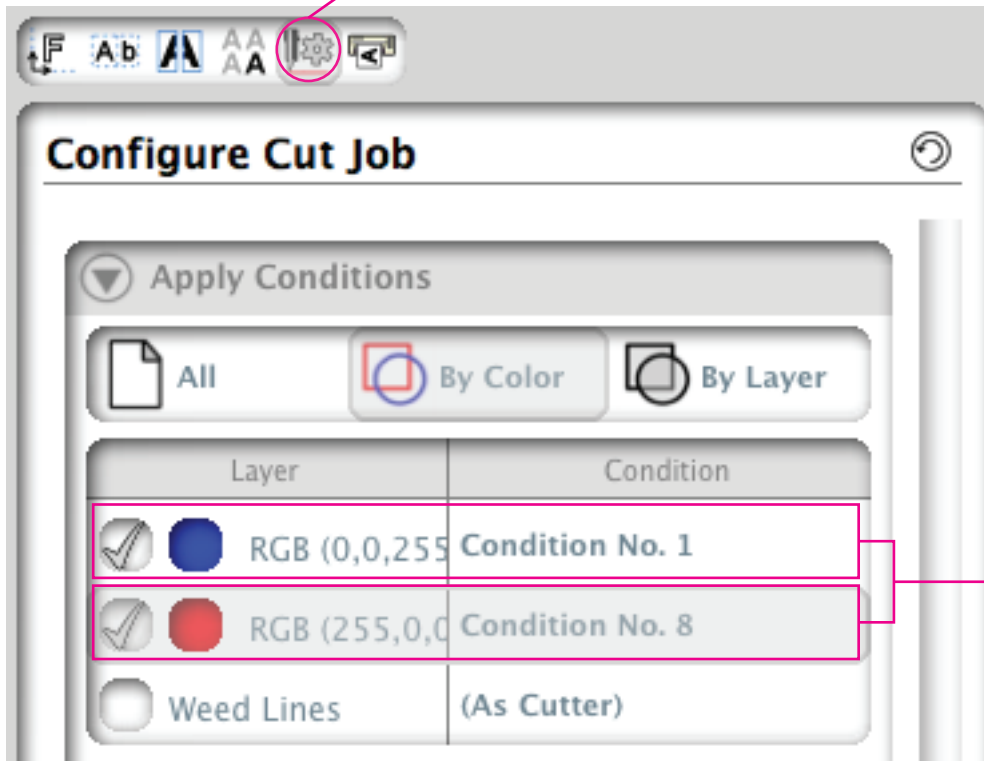
Blue lines will be creased and red lines will be cut.



Load necessary tools into tool holders 1 and 2. Set conditions for each tool and run tests to get correct amount of pressure and speed.
Place material on the plotter and send file to Cutting Master 3.

MULTIPLE TOOLS CONT.

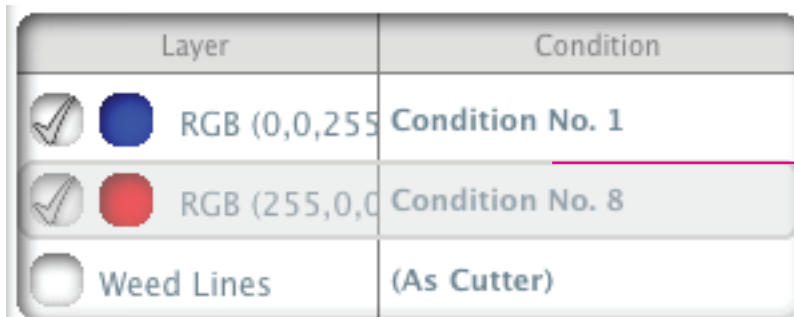
Select the Configure Cut Job Window.



Designate your lines to which tool and process you are using.

Condition 1 will crease and Condition 2 will cut.

For this, we are creasing with blue lines and cutting with red lines.



Hover over the creasing tool condition, right click, and insert pause.

This will pause the machine between creasing and cutting.

Send file to the plotter.