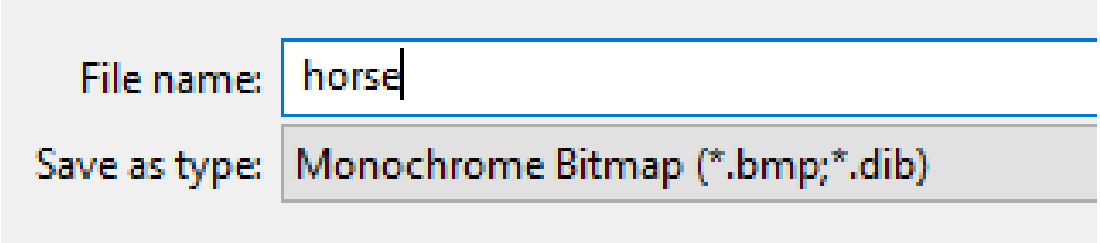
Loose Moose Help Instructions

These instructions explain the main Loose Moose tracing workflow and the text/stencil tools.

Main Screen Workflow

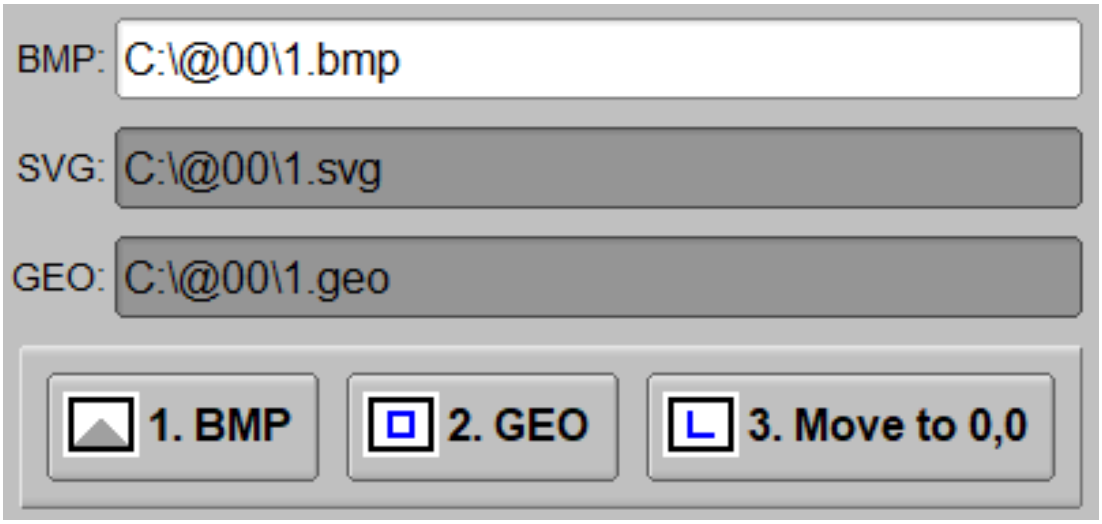
1. Prepare The Image



Prepare image control

Before tracing, save the artwork as a monochrome BMP file. A simple editor such as MS Paint can be used to convert the image.

2. Trace The Image



Trace workflow buttons

To trace an image, use the first three controls in order:

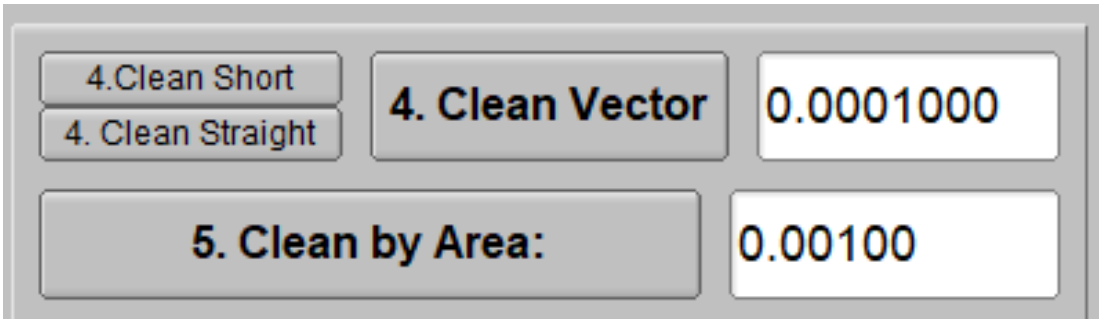
- `BMP`
- `GEO`
- `Move to 0,0`

After tracing, the image turns blue. Blue indicates the outside cut. Light blue indicates inside cuts.

When inspecting the drawing:

- Use the mouse wheel to zoom in or out.
- Right-click, drag, and release to pan around the canvas.

3. Clean The Vector



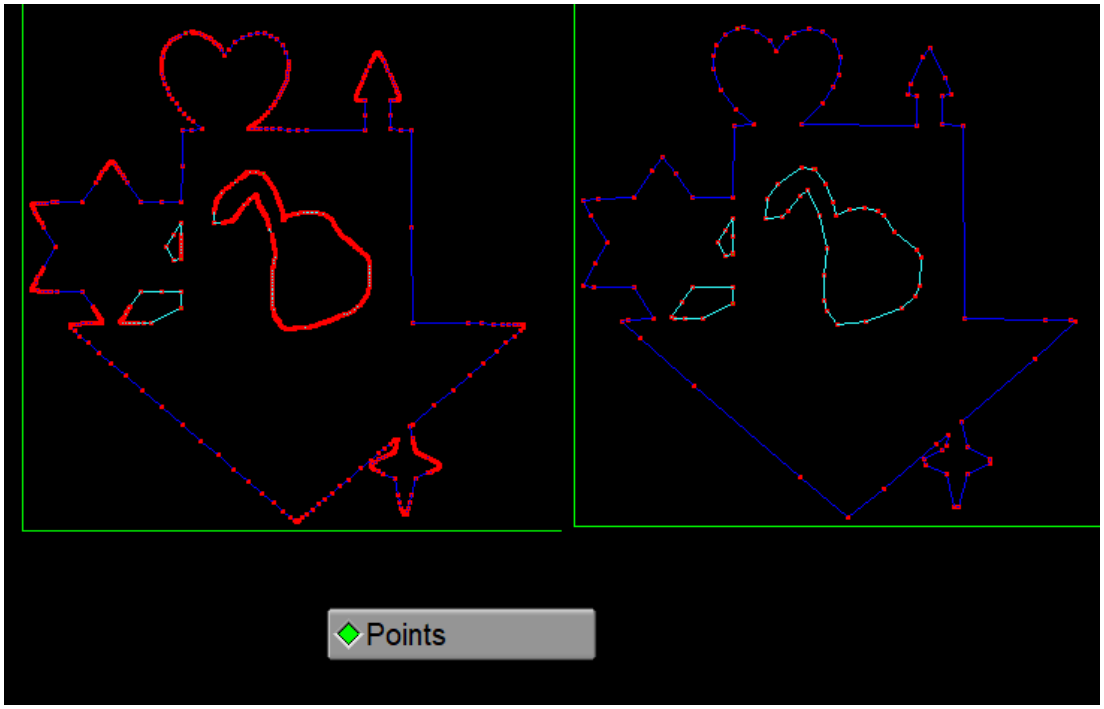
Clean vector controls

The traced image may contain too many points. Use `Clean Vector` to reduce the point count without noticeably reducing cut quality.

Recommended cleanup process:

- Press `Clean Vector` three or four times.
- Stop when the file size is about 20% to 30% of the original traced size.
- If quality drops too much, press `Undo` to reverse the last cleanup.
- Use `Clean by Area` to remove polylines that are too small to keep.

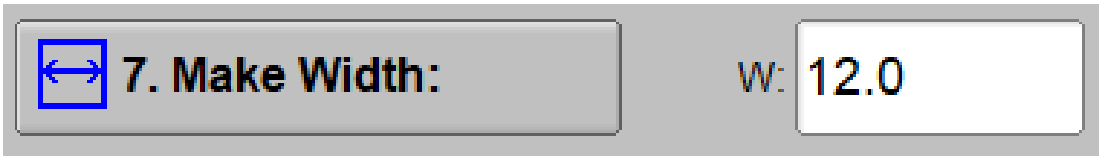
4. Check Cleanup Progress



Cleanup points example

Enable `Points` to see how the cleanup process changes the vector geometry.

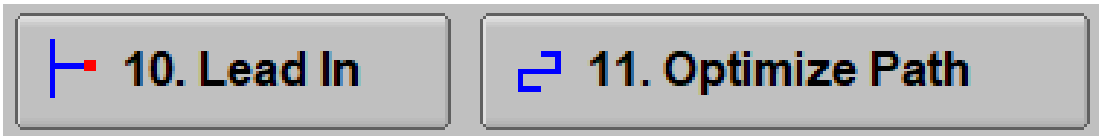
5. Resize The Design



Make width control

Use `Make Width` to resize the design to the real cutting size. For example, enter a width such as `12` for inches or `400` for millimeters, depending on the units you are using.

6. Add Lead-Ins And Optimize The Path



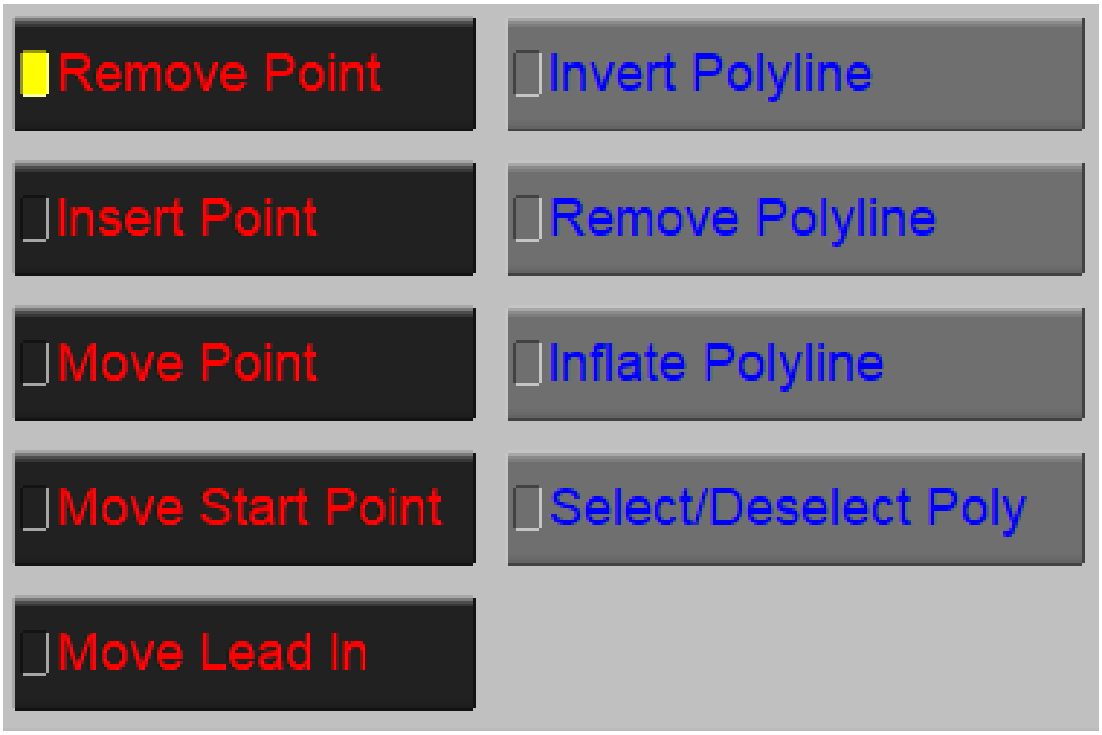
Lead-in and optimize controls

To prepare the cutting path:

- Click `Lead In`.
- Click `Optimize Path`.
- Keep the `Path` checkbox selected so you can see the optimized travel path.

The path can still be optimized even if the path overlay is hidden, but the overlay makes it easier to review.

7. Edit Points And Polylines



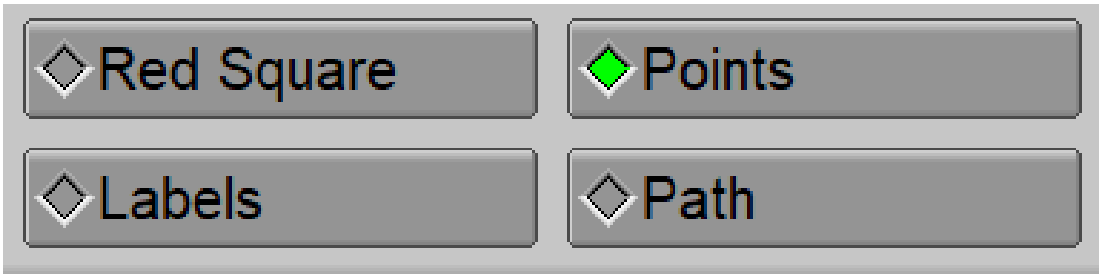
Editing actions

Before generating G-code, you can adjust the drawing with these actions:

- `Remove Point`
- `Insert Point`
- `Move Point`
- `Move Start Point`
- `Move Lead In`
- `Invert Polyline`
- `Remove Polyline`
- `Inflate Polyline`
- `Select/Deselect Polyline`

After choosing an action, click the drawing canvas to apply it.

8. Set The View



View controls

Use the view controls to show or hide:

- `Red Square`
- `Labels`
- `Points`
- `Path`

The red square marks the starting point for a polyline. `Path` shows the tool travel path.

9. Insert Text

Font button

Use `6A. Font` to insert text with a chosen font. Inserted text appears in red. Outside text cuts appear red, and inside text cuts appear light red.

10. Use Union

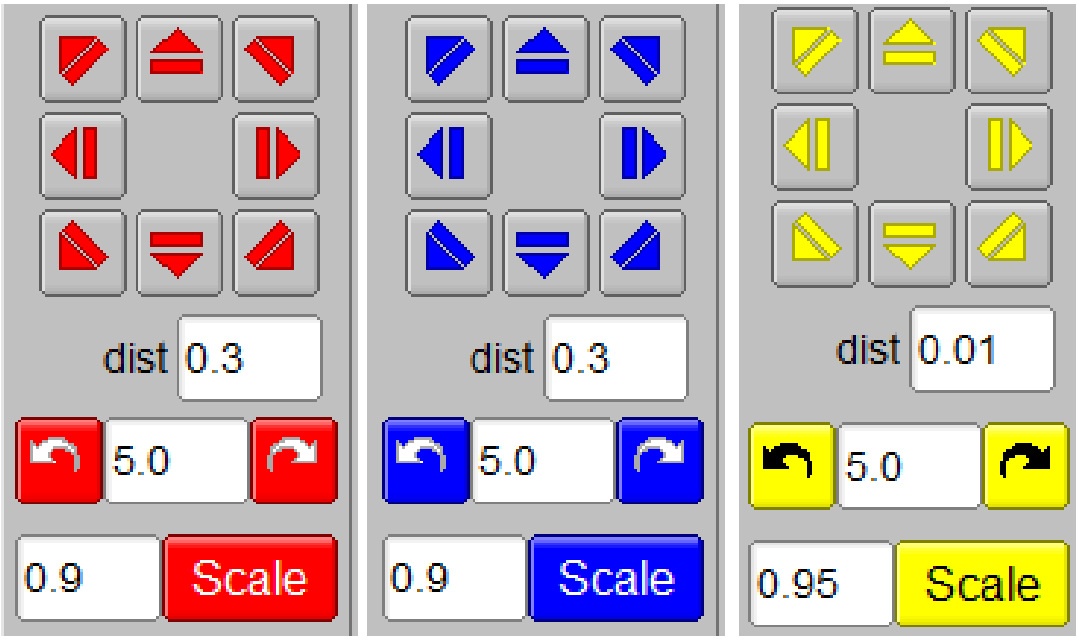
Union controls

Use `Union` when you need to combine two parts. A common example is a main traced design in blue combined with inserted text in red.

Union rules:

- Use exactly two parts at a time.
- Move, scale, or rotate the blue part with the blue controls.
- Move, scale, or rotate the red part with the red controls.
- To combine three or more parts, union parts 1 and 2 first, then union the result with part 3.

11. Position Parts



Positioning arrows

Use the colored arrow controls to position parts:

- Blue arrows move the blue traced part.
- Red arrows move the red text or inserted part.
- Yellow arrows move selected polylines.

12. Store And Restore Smaller Elements

Memory controls

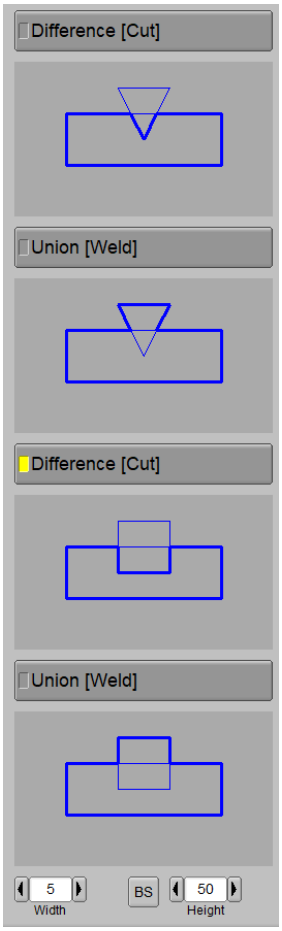
You can use `Union` to combine the main traced picture with text or with other traced images.

Example workflow:

1. Trace a smaller image, such as a horseshoe.
2. Store it in memory with the green memory buttons.
3. Use `ONE`, `TWO`, and `THREE` to store or restore up to three smaller traced images.
4. Trace the larger main image, such as a horse.
5. Restore the smaller images one at a time.
6. Use `Union` to combine each smaller image with the main design.

Adding Text And Stencil Cuts

13. Choose Font, Enter Text, And Cut Stencils



Text and stencil tools

After choosing a font and entering text, create stencil connections with the polygonal or rectangular cutter/welder tools.

Available operations:

- `Difference [Cut]` with a polygonal shape
- `Union [Weld]` with a polygonal shape
- `Difference [Cut]` with a rectangular shape

- `Union [Weld]` with a rectangular shape

In most cases, use `Difference [Cut]`.

For polygonal stencil cuts:

- Click point by point to draw the shape.
- Press Enter to close the polygon.
- Repeat for letters that need stencil bridges, such as `O` and `B`.
- Letters such as `K` may not need stencil cutting.

For rectangular stencil cuts:

- Click the canvas to place the rectangle.
- Use the two size values in the lower-left area of the screen to adjust width and height.
- Use `BC` to switch between bar and cutter behavior. The welding bar is larger and horizontal. The cutter is smaller and vertical.

14. Add A Frame

After finishing stencil cuts, open the `Frame` tab.

You can insert:

- A rectangular frame
- A circular frame
- A lower-circle or upper-circle text layout

When inserting a circular frame, focus first on matching the overall shape. At this stage, sizes are still in pixels. Resize the finished design on the main screen before cutting.