

Using Universal Laser Cutter

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The laser cutter can cut and etch paper, cardstock, cardboard, plastic, wood, and leather. It can also etch glass and metal, but it is not strong enough to cut these materials.

The laser cutter software imports a file created with Adobe Illustrator and interprets a very thin (0.01 point) RED line as a cut line. Any other sizes or colors will be etched. This document describes how operate the laser cutter using the UCP (Universal Control Program) application.

NOTE: You must first “print” the file from Adobe Illustrator. Refer to the document “Creating Cut Lines for the Laser Cutter” for instructions.

IMPORTANT: Always turn on the exhaust fan when using the laser cutter. The power switch is at the top right side of the rear of the fan.

1. Press the Power button on the laser cutter.
2. Open the UCP application by clicking the UCP icon on the desktop.
3. The most recently “printed” file will be displayed.
4. Verify that the desired cut lines appear as red. If not:
 - Click on the folder icon.
 - Click on the Delete button, then click Yes
 - Click on the Close button.
 - Click on the Close button to exit UCP.
 - Fix the file in Illustrator, paying special attention to the stroke color and thickness.Then “print” again.
5. Select the material to be used. The largest sheet can be 16” x 8”.
6. Use the caliper measuring tool to measure the material thickness in mm.
7. Open the laser cutter cover and place the material on the cutting bed.
8. With the cover open, click on the Focus View icon (second from the left).
9. Position the mouse cursor to the top left corner of the image and click the left mouse button. (Use the mouse wheel to zoom in and out as needed.)
10. The laser will be positioned to that area of the bed. Verify the laser’s position on the material and adjust material if necessary.
11. Position the mouse cursor to the bottom right corner of the image and click the left mouse button.
12. The laser will be re-positioned to that area of the bed. Verify the laser’s position on the material and adjust material if necessary.
13. If needed, you can move the image by click on the Move icon (crossed arrows), then drag and drop the blue square in the center of the image.
14. Click the Settings button.
15. Select the appropriate material. You will need to expand those menu items with a plus sign.
16. Enter the material thickness.
17. Click the Apply button, then the OK button.
18. Close the cover.
19. Click the Green Arrow to start the job.

20. When finished, power off the fan and laser cutter. Clean any scrap material left on the bed.

IMPORTANT: Do NOT leave the laser cutter running unattended. Press the Pause button should the excessive smoke or a fire appear.

It is possible for paper, cardboard or wood to catch on fire. If necessary, use a wet rag or wet paper towels to extinguish a small fire. Use the fire blanket for a larger fire.

Advance Adjustments:

In the Settings window, use the Intensity Adjustment sliders to control the intensity of the laser.

Should the laser not completely cut through the material, increase the Vector Cutting level.

When etching wood, should the edges be too burnt, decrease the Raster Etching level.

Rerunning an existing job:

Unless deleted, all previous jobs are stored. To re-run a job:

1. Open the UCP application.
2. Click the Folder icon.
3. Scroll through the list of files and select the desired file.
4. The previous settings have been saved. Change the material and thickness settings if using a new material.
5. Follow the above instructions.