

Low Impact Laser Engraver Operation Instruction

1. Laser Printing Parameters

For safety, our 3d printer could only use the low impact laser engraver, with a low-power consumption.

And usually, the low impact laser engraver cannot cut the object, but use the laser light to carbonize the object (such as wood plank, paperboard, plywood etc.) to create a black and white picture.

Laser Power	1W (1000mw)
Focal Length	60MM
Print Size	Dia.180MM, and 1 Pixel corresponds to 0.17639MM 1000 Pixels is 176.39MM.
Laser Intensity	1-64 (Adjustable)

2. Install The Laser Engraver

- a. Please remove the extruder head from the printer first. And then, to install the laser engraver, please lock the laser engraver with a M2.5 * 5 screw.



Figure 1. Laser Engraver Installation Drawing

b. Please plug the laser engraver cable into the laser port on the motherboard, see Figure 2 below:

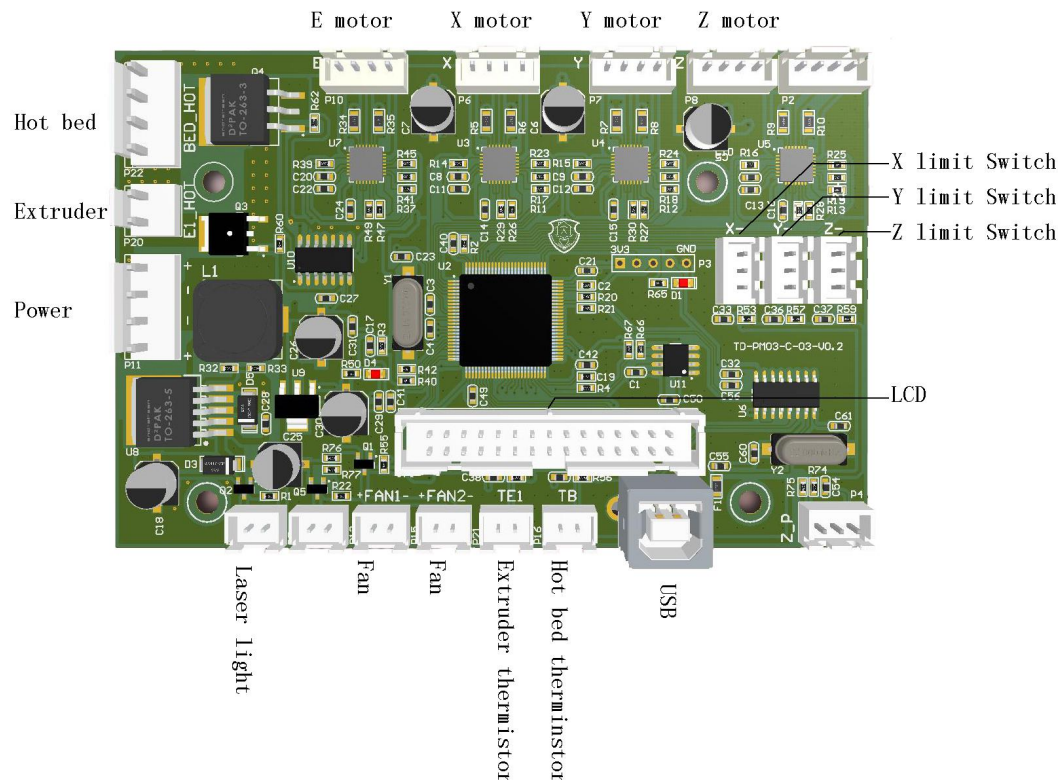


Figure 2. Port on the Motherboard for Laser Engraver

3. How To Use This Low Impact Laser Engraver ?

The input format of printing file is .BMP image format, which support 16 bit, 24 bit, 32 bit color depth.

And it's very easy to convert a picture to be .BMP format, and use this BMP picture to print a black and white picture.

a. Choose a picture, and adjust its resolutions.

1 Pixel corresponds to 0.17639MM, as the printing area is a diameter 180MM circle, its circle inscribed square is 127.279*127.279MM.

So, $127.279\text{MM} \div 0.17639\text{MM} = 721$, it means if your picture is a square image, the resolutions should be adjusted to be not more than 721*721.

b. Save the picture as BMP format.

Please select the drawing -> Save as -> 24 bit .BMP file, and the file name must be English or number, also couldn't more than 8 characters.

c. Copy the .BMP picture to the memory card, and insert the memory card into the card slot on the 3D printer, then, put a wood plank, paperboard or plywood plate on

the hotbed. And then, you could select this BMP file to start the laser engraver.

4. Debugging

1. The laser engraver should be 60MM higher on the hotbed.

If it's not, you could click the Setting -> Z-hight to adjust the height till it's in the right position.

2. If the printed picture is too black or too white, you could click the Setting -> Laser Intensity, to adjust a suitable numerical value.