

Laser Engraving Manual

MT3

V1.1

Suitable printer

- MT2X
- MT3S
- MT3X

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Software

- LaserTool
- Inkscape
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Usage

LaserTool & Inkscape

1. Engrave the image.

Import the image file into LaserTool and export the nc file.

```
Image -> LaserTool -> nc file .
```

2. Character engraving.

Edit the text in inkscape, and then export the png format image. Change the format of the png format image to jpg, bmp, jpeg, etc., and then import it into the LaserTool and export the nc file.

```
Edit the text in inkscape -> png file -> jpg, bmp, jpeg etc. -> LaserTool -> nc file
```

For detailed operation, please see the video [Laser / Laser engraving tutorial.mp4](#) .

The latest version of the software can be downloaded on Github.

Download:[<https://github.com/MULTOO-3DPrinter/LaserTool>]

Other engraving software

Other laser engraving software generally export NC files directly. You only need to open the NC file with a text editor and add the following code at the beginning.

```
;Start code
M05; off
G90
M1104; Set
G21
```

File format

MT2X needs to use the nc format. For example, `test.nc`

MT3S and MT3X need to use gcode format. For example, `test.gcode`

Tips,

Regardless of the nc and gcode format files, they are all text files. They can be opened directly by a text editor, and their file format can also be changed.

Carving

Laser engraving on MULTOO 3D PRINTER is very simple. But the description of the operation process may be a bit complicated, please don't worry.

Laser Mode Entrance,

MT3: `Info -> Menu -> Settings -> MULTOO -> select mode : Laser`

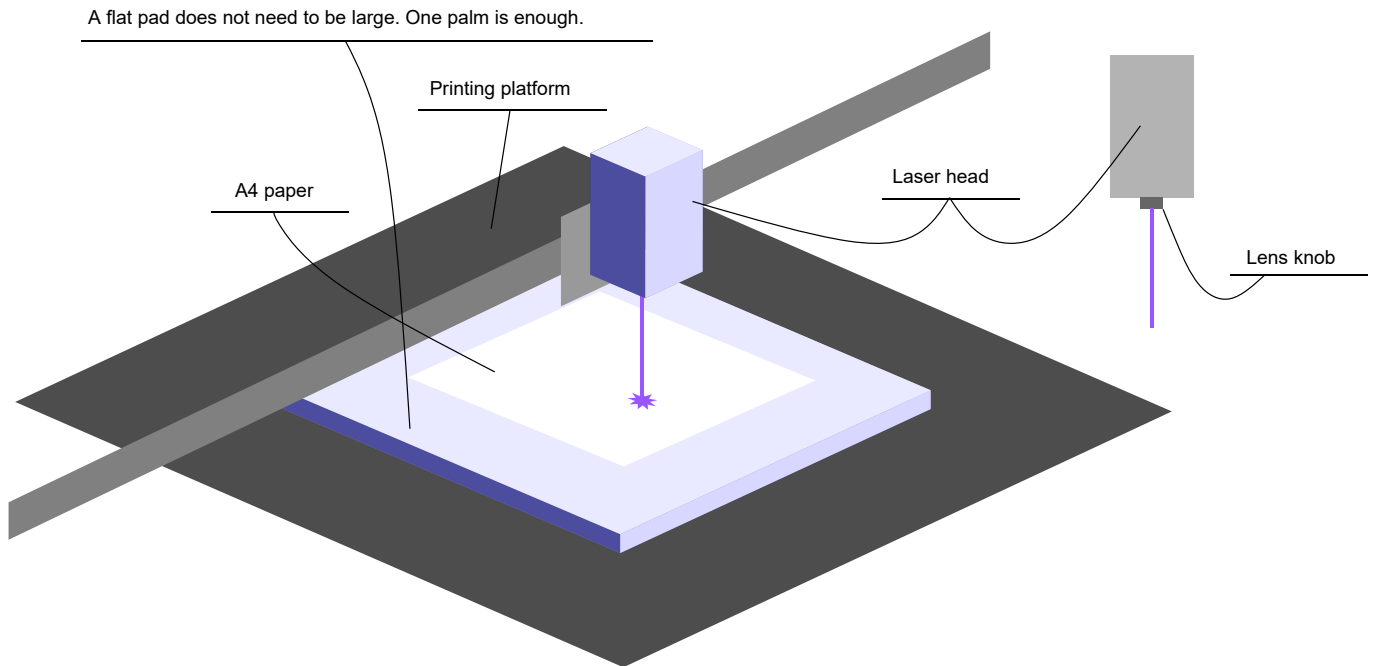
MT2X: `Main menu -> Multoo -> Laser entrance`

In the menu, under the laser mode, there are the following options,

1. Adjust Focus
2. Set object height
3. Set Base point
4. Engraving from SD / To Carve

Adjust Focus

Look at the layout first.



As you can see from the layout diagram, two things need to be prepared,

1. A pad.
2. A4 paper or other thin sheets of paper.

Because when we adjust the focus, the laser may burn through the paper, which will burn to the printing platform. (MT3X, MT3S)

Step1. If the thickness of this pad exceeds 0.1mm, you'd better set the value of **2. Set object height** first. The thickness of the paper is negligible.

Step2. Then perform the operation, **Please wear glasses!**

Info -> Menu -> Settings -> MULT00 -> 1. Adjust focus

Step3. When the printer stops moving, move the laser head by hand to let the laser spot shine on the A4 paper. **Please wear glasses!**

Step4. Rotate the lens knob to adjust the size of the focus. The smaller the better. **Please wear glasses!**

These steps does not need to be performed every time you engrave.
And, this step has nothing to do with other operations. You can turn off the printer or do other things. When you next sculpt, there is no need to adjust the focus.
Unless the laser knob is accidentally rotated.

Set object height

After completing the previous step, we need to set the thickness of the object to be carved.

For example, I will carve on cardboard. The thickness of the cardboard is 3mm, so I set this value to 3.

If it is a test, then we do not set this value for now. Because the thickness of this pad has been set in 'Adjust Focus/ Step1'. A4 paper does not need to be thrown away, it is still useful.

Set Base point

Step1. Perform operations, **Please wear glasses!**

Info -> Menu -> Settings -> MULTOO -> 3. Set Base point

Step2. The laser is shining at the moment. Push the slider (X-axis) of the laser head and the printing platform (Y-axis) by hand, so that the light spot illuminates the lower left corner of the object(or A4-Paper) to be engraved.

As a test, you can directly engrave on A4 paper.

Engraving from SD

Select the engraving file from the SD card. It will automatically start engraving.

Other instructions,

You can easily understand from the above description,

1. Adjust Focus, is to adjust the laser head.
 2. Set object height, is to adjust the height of the laser head.
 3. Set Base point, is to set the starting position of engraving.
- Finally, select the file to start engraving directly.

Therefore, the first three steps do not need to be operated every time. If you are continuously engraving, and the height of the object does not change, then you only need to continuously select the file.

Contact us

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Skype's working hours are from 21:00 to 02:00 (China time).

If you need urgent help, but Skype is offline, please send an email to karen@multoo.com. Karen will arrange for a technician to log in to Skype.

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