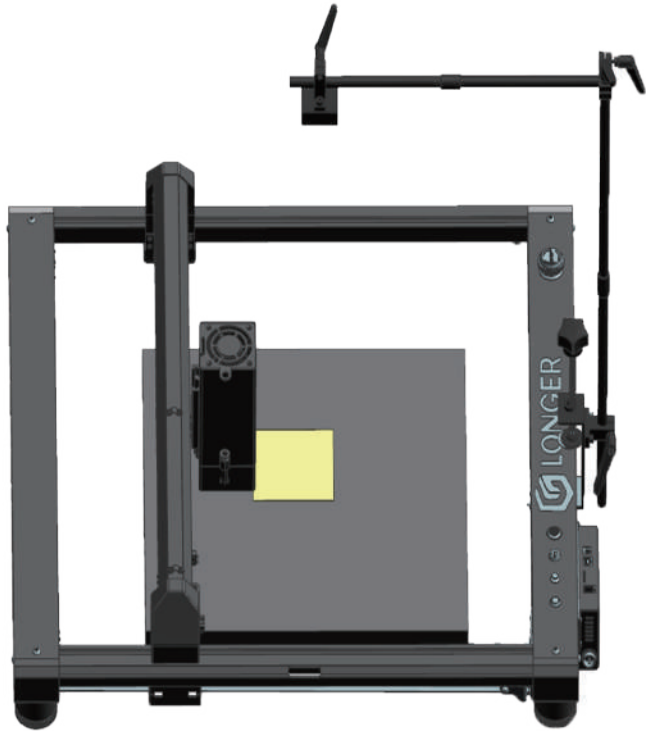




LONGER



Camera Instructions



LONGER LASER ENGRAVER CAMERA INSTRUCTIONS

Thank you for choosing our products.
Please read this manual carefully before use.

Please reference more details on digital manual about the operation of
Laser Engraver and installation of LaserGRBL or LightBurn.

Please join our Facebook Group:
LONGER Laser Engraver Official Group
Email: support@longer.net

If you have any question, please feel free to contact us as above.

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PACKING LIST



Base



M5*10 Screw x4



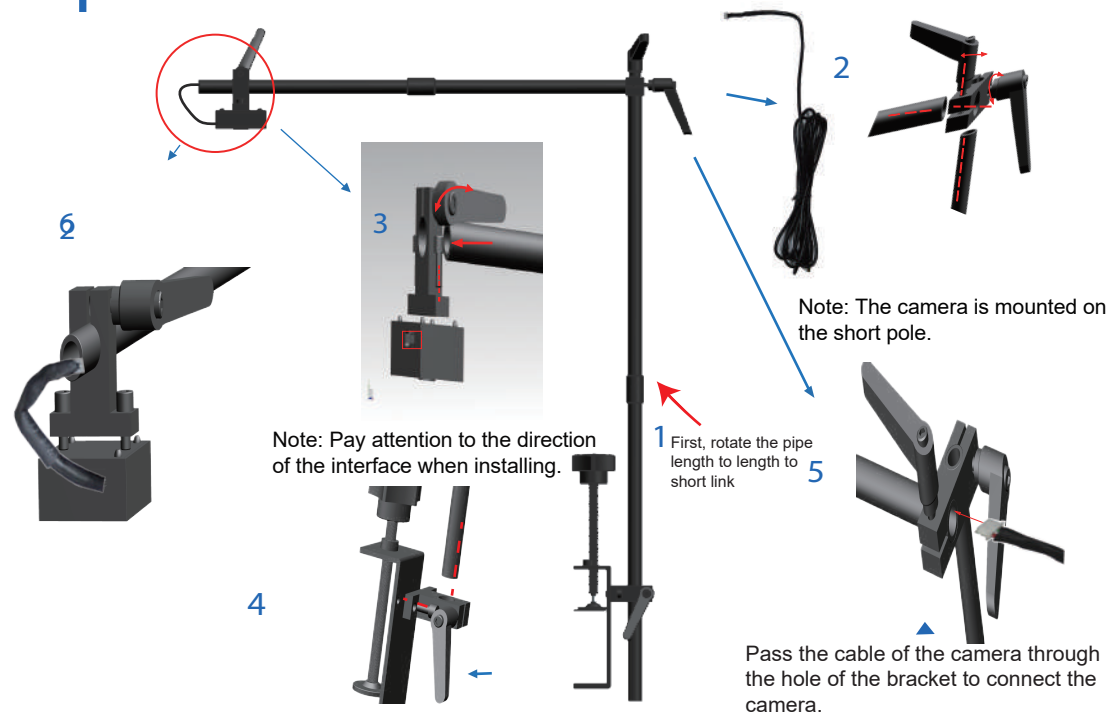
Ruler

Brand:	Longer
Pixel:	8MP
Resolution:	3264*2448
Sensor:	1/3"
Pixel Size:	1.4x1.4um
FOV:	78°
Photuography range:	700*520mm
Camera size:	38*38*10mm
Software:	Lightburn
Driver:	Driver-free for Windows/Mac systems
Focus:	3.6mm
Aperture:	F2.0

INSTRUCTIONS STEPS

1

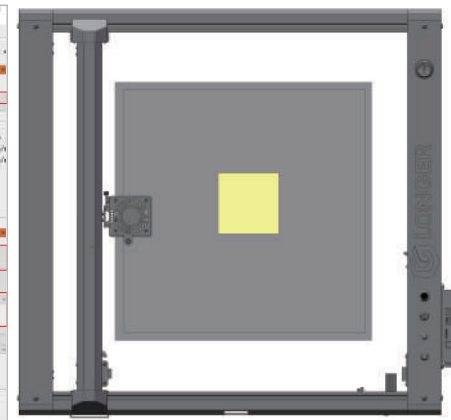
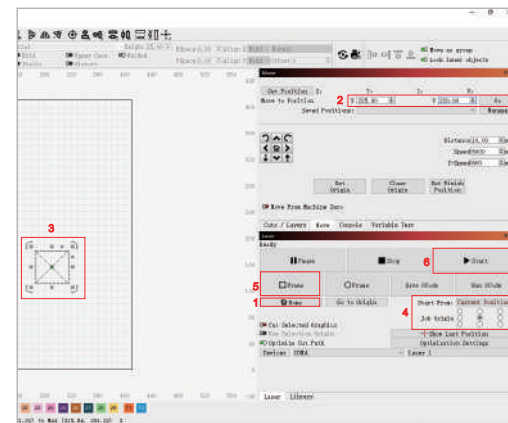
▼ Connect the following components according to the steps shown in the figure.



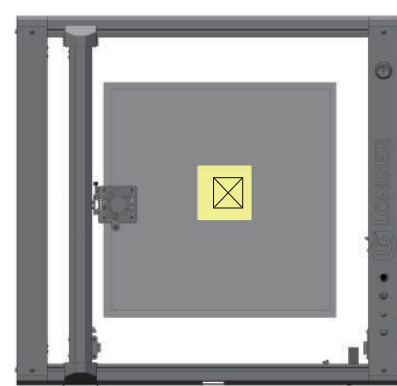
2

▼ Determine the center position of the camera.

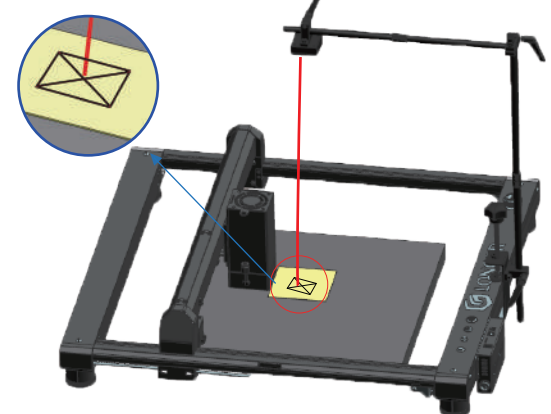
① Connect the engraving machine, and click Home to complete, change the X position to 225mm in the mobile option, and change the Y position to 220mm (the engraving format is 450*440mm, X is changed to 225mm, Y is changed to 220mm; if the engraving format is 400*400mm, X is changed to 200mm, Y is changed to 200mm), click go. After completion, put the 100mm*100mm basswood flat on the center of the working area and draw a 50*50 file like "X" in LightBurn software. Select the Current Position as the Start Form, and select the center point as the Job Origin click Frame to adjust the position of the basswood.



② Modify the engraving parameters and click to start engraving. After the engraving is completed, it is shown in the figure below.

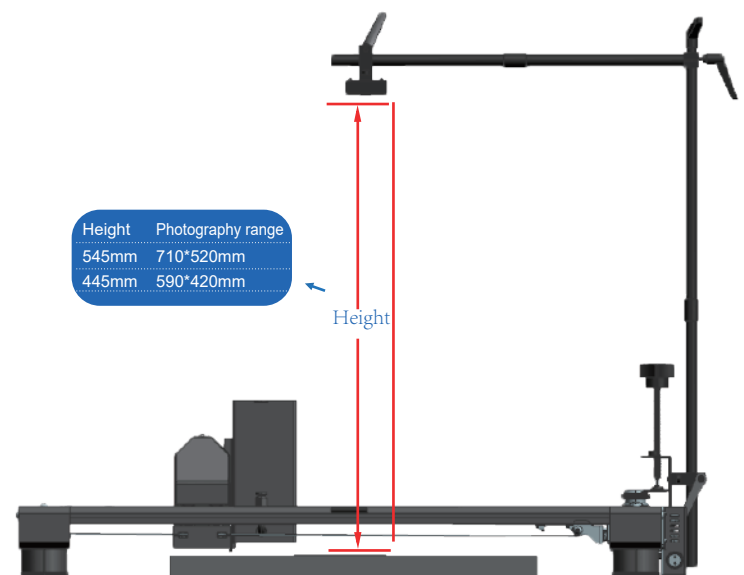


③ Align the center of the camera lens with the intersection point on the basswood board as vertically as possible.



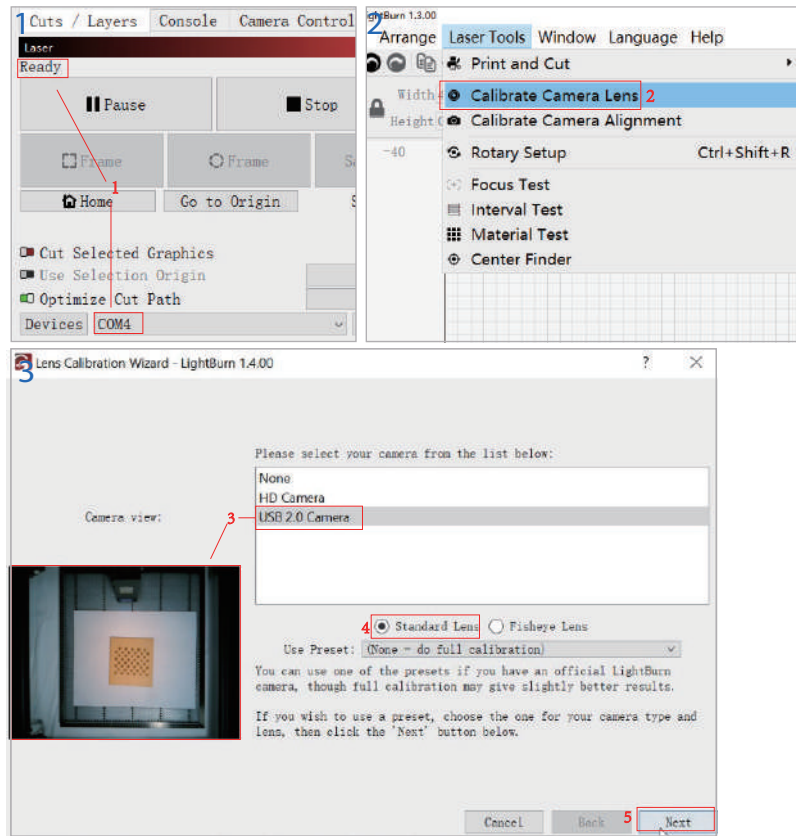
3

▼ Make the distance between the working plane and the camera lens 545 mm, make sure the camera sees the entire work area.

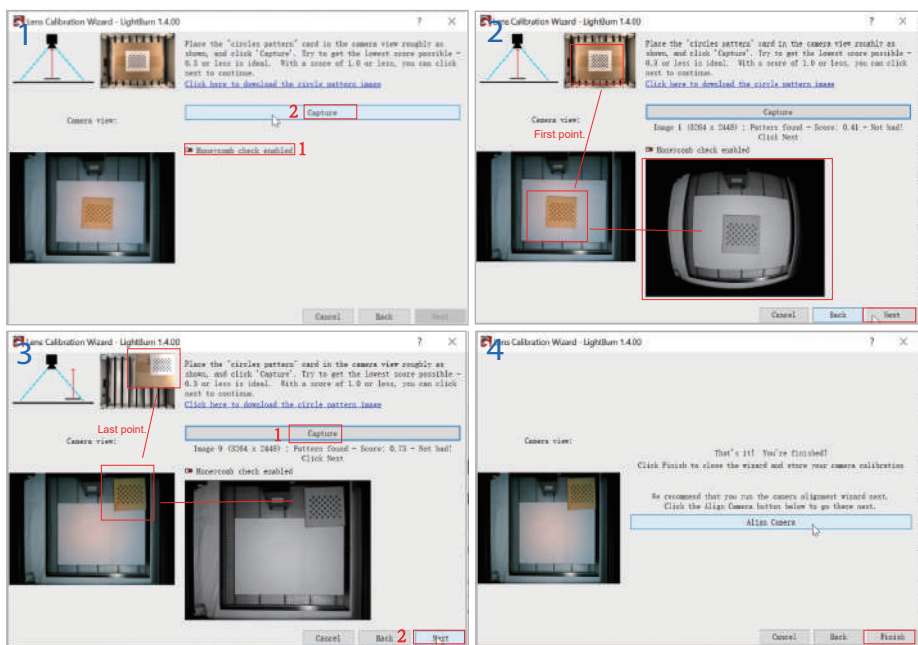


4 Camera calibration.

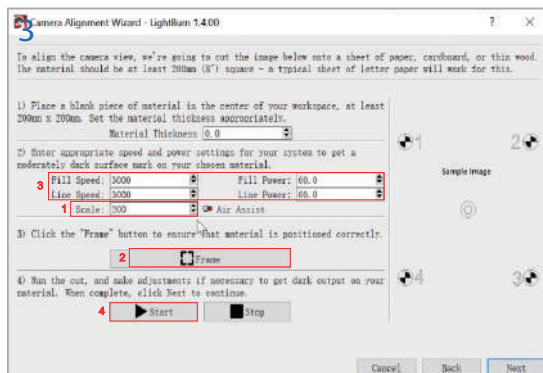
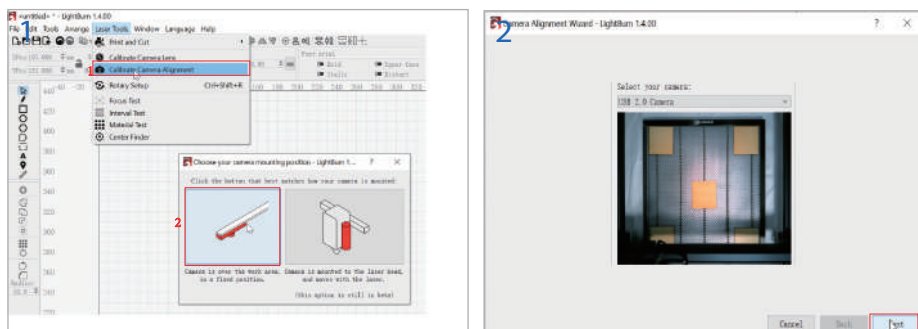
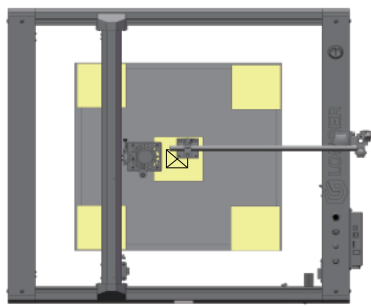
1)Connect the camera to the computer with a USB cable, and open the LightBurn software to connect to the engraving machine.



2)According to the software prompts and follow the steps, a total of 9 positions in the working area need to be calibrated, which are the exact center, the middle of the 4 sides of the working area and the positions of the 4 corners.Placing a similar paper with a slightly larger area under the calibration plate can better improve the capture effect.



3)Make location markers.

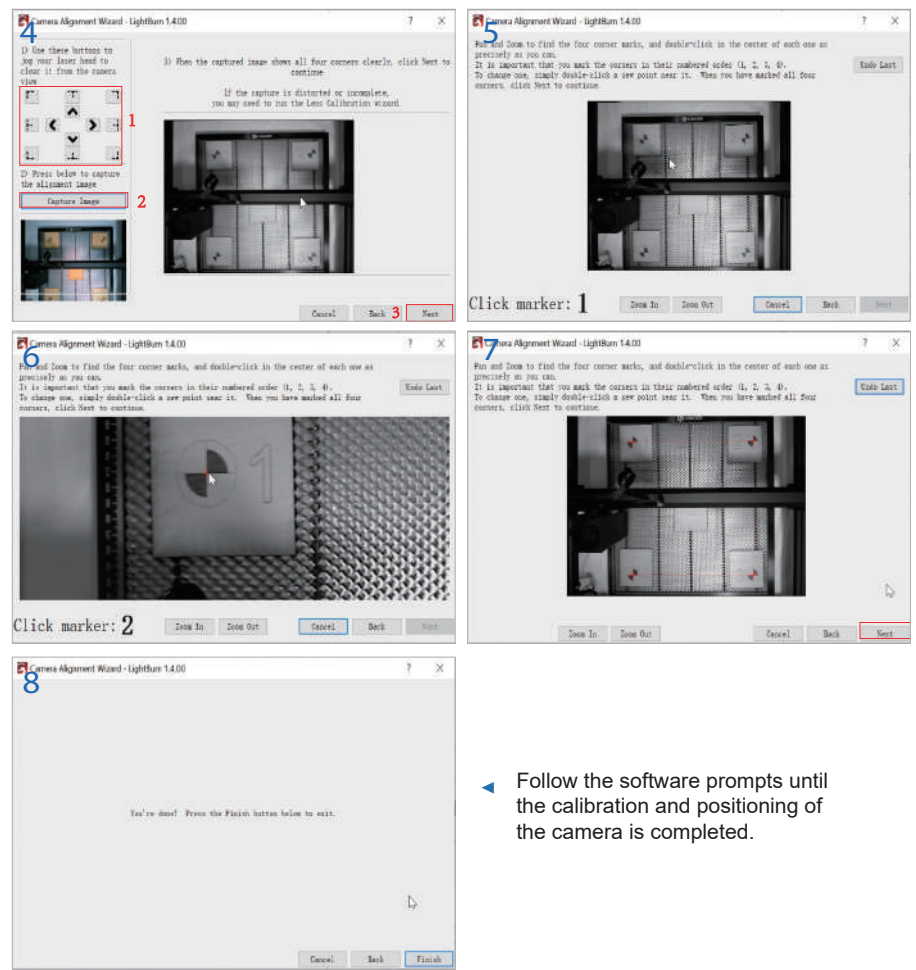


①Set the engraving parameters (refer to the laser parameter table), and set the scale value according to the actual positioning size.

Scale	Size(mm²)
100	200*200
150	300*300
200	400*400

②Before clicking Frame, select Current Position as the Start Form,the lower left corner point is used as the Job Origin. Patrol to see if there is a collision machine, you need to set a smaller Scale value or recalibrate the camera.

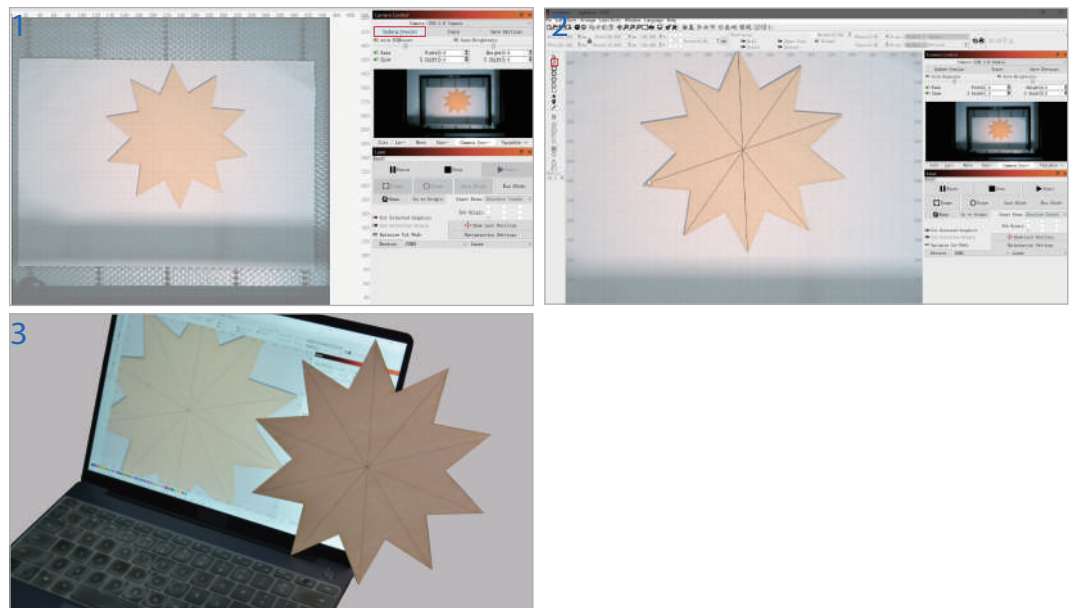
③Set the printing parameters and click to start printing.



Follow the software prompts until the calibration and positioning of the camera is completed.

5 After simple calibration,It can realize high-definition video recording and real-time monitoring. It can be engraved point-by-point engraving, automatically locate the position of the workpiece for engraving, no need to deliberately engrave the material, solve the problem of positioning different patterns, and can complete multiple independent tasks at the same time.

Put a sculpted object into the working area, click Update Overlay, and you can see the object in the left working area of the software. Use the drawing tool to draw graphics on the surface of the object, set the engraving parameters, and click Print. After printing, you can find the graphics you drew engraved on the object.



MORE INFORMATION



Support Email : support@longer.net



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Facebook Group: Longer Laser Engraver Official Group



Youtube channel: Longer 3D