ATOMSTACK F03-0107-0AA1 MAKER AC1 Camera for Laser Engraver User Manual

ATOMSTACK MAKER

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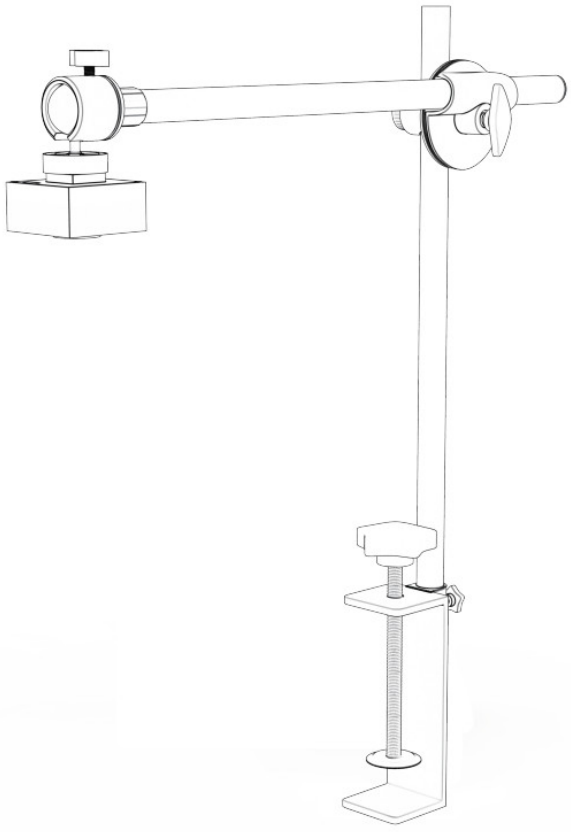


http://qr71.cn/olsRvn/qodW6yZ

Contents

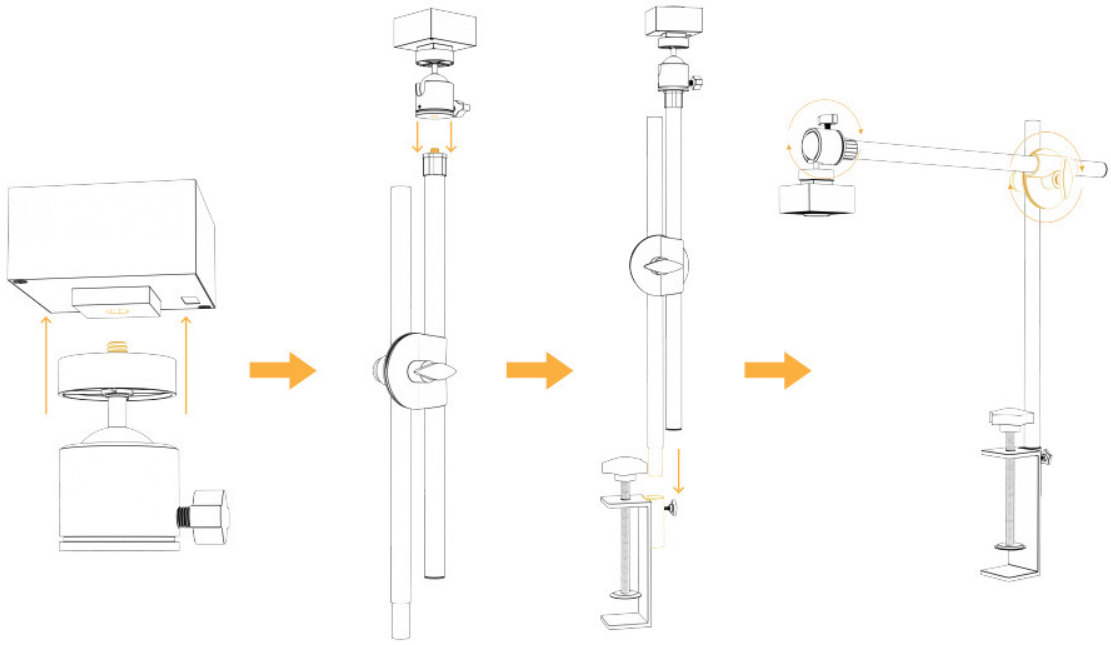
Declaration

ATOMSTACK MAKER AC1 camera functions need to be controlled by Light Burn, please download the official version of Light Burn software. Lightbar is a third-party software, so ATOMSTACK service is not responsible for any loss caused by the operation of Light Burn, the firmware of ATOMSTACK has been tested in detail by ATOMSTACK, and the situation of incompatibility with software or hardware is still possible occur. If an error occurs due to incompatibility, you can contact our customer department service for technical support. support@atomstack.com

Precautions

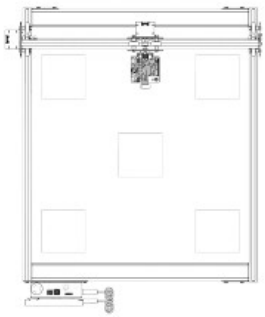
1. Do not collide or move the camera during the calibration process.
2. Do not collide or move the camera after the alignment of the calibration camera is completed. If the camera is collided and the camera is shifted left and right, the camera lens and camera alignment need to be recalibrated.
3. Cardboard and dot cards need to be flat.

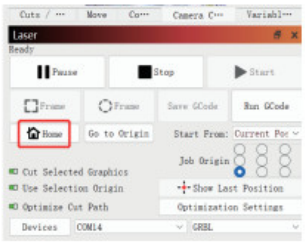
Assembly steps

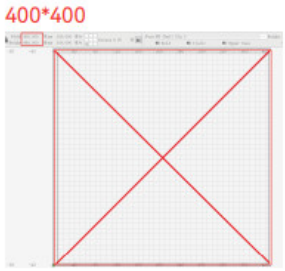


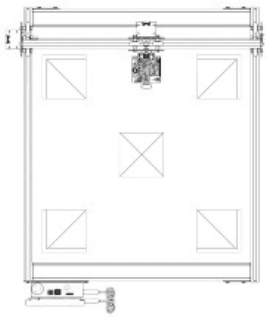
Preparation (installation and debugging)

4.1 Place the 100mm*100mm cardboard flatly in the working area of the engraving machine, fix the focus, and then return the laser to the origin of the machine to engrave a pattern of 400*400mm.

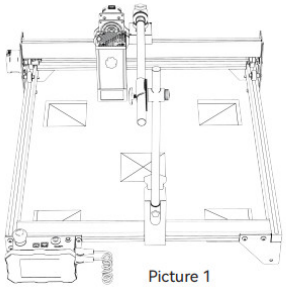




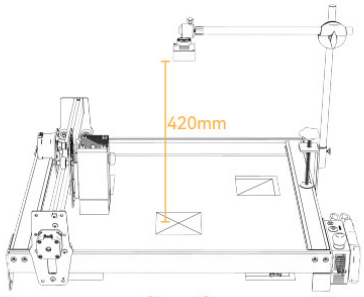




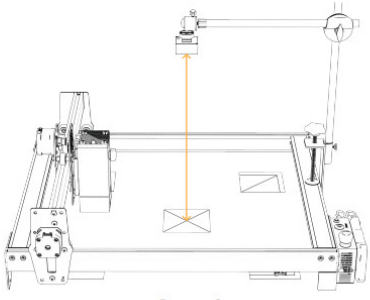
4.2 Fix the assembled camera on the machine (Picture 1), Pay attention to keep the position of the machine and the paper unchanged; adjust the position of the camera so that the distance between the working plane and the camera lens is 420mm (Picture 2), and make the center of the camera lens align with the cross position as much as possible (Picture 3).\



Picture 1



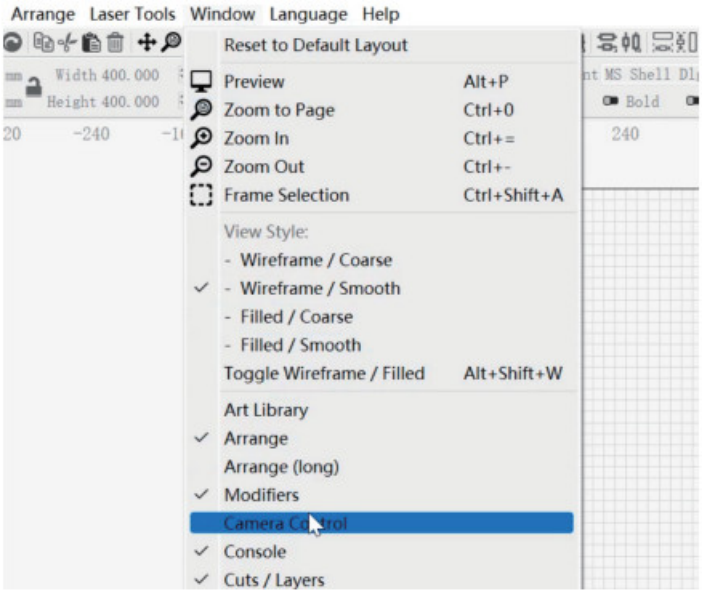
Picture 2



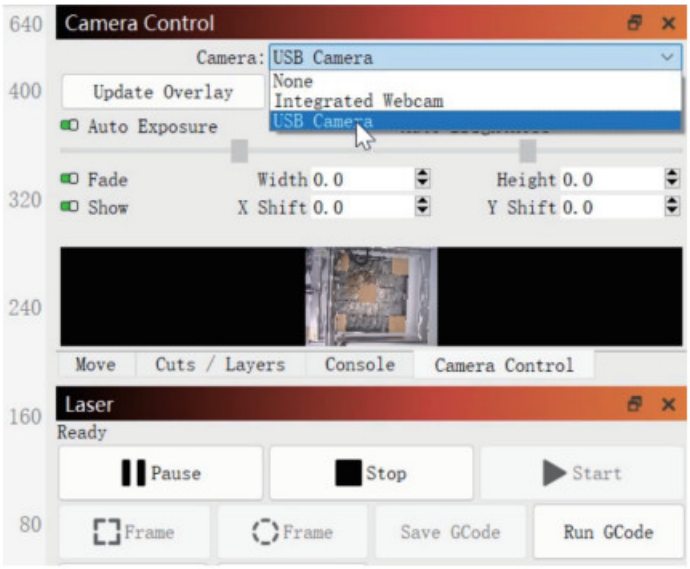
Picture 3

Calibrate Camera Lens

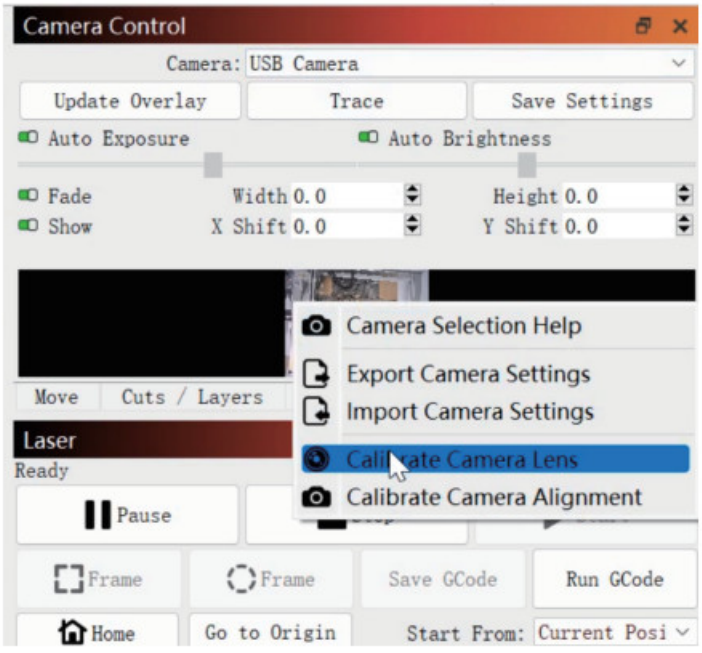
5.1 Check camera control in the Window drop-down menu



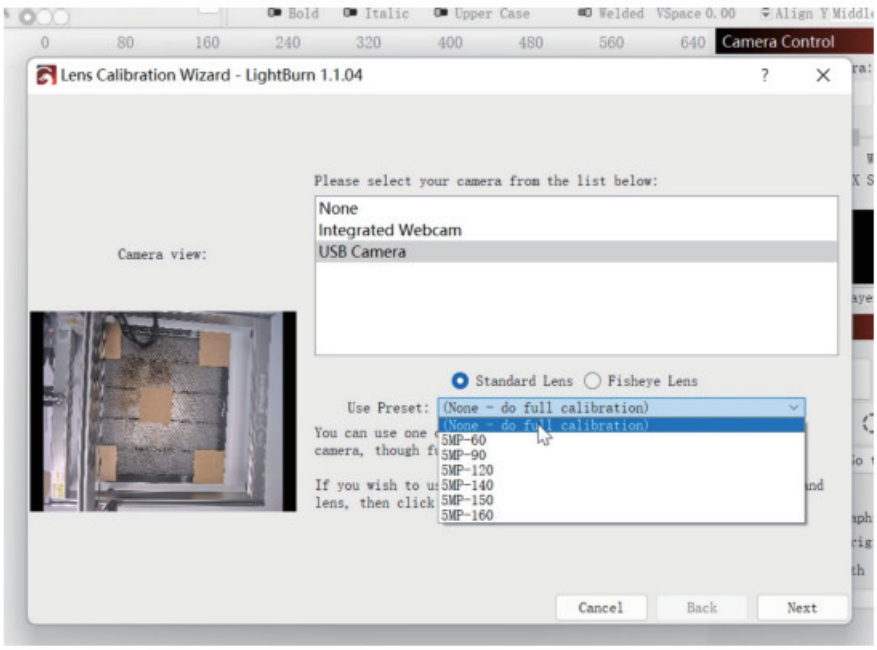
5.2 Select the camera in the camera control window.



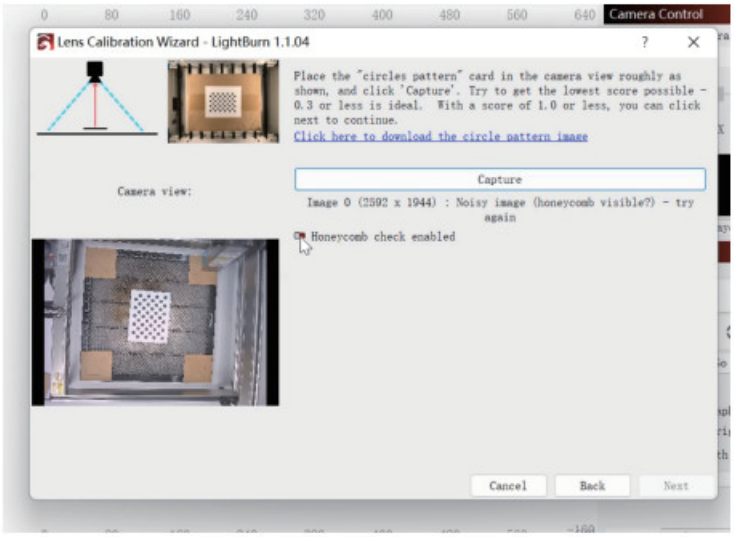
5.3 Right-click in the camera control window and click Calibrate Camera Lens.



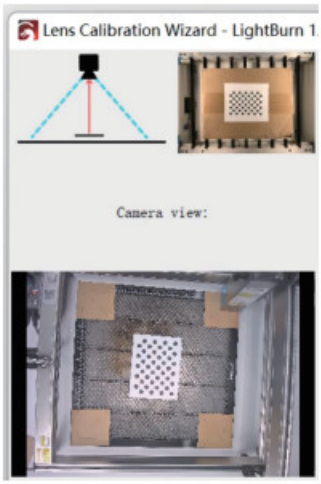
5.4 Click Update Overlay, select the Camera name, Standard Lens, and None – do full calibration in the pop-up window.

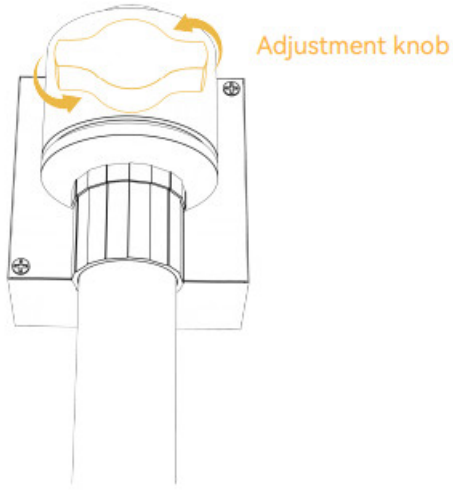


5.5 Click to close Honeycomb check enabled.

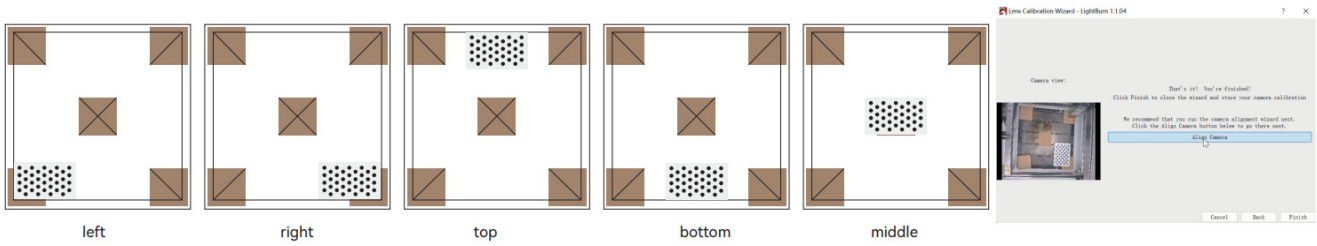


5.6 Observe whether the fixed focus plate in the preview window is tilted or not. If it is tilted, adjust the knob to fine-tune the camera lens so that the cross mark is in the center of the field of view, and the top, bottom, left, and right are as
symmetrical as possible.



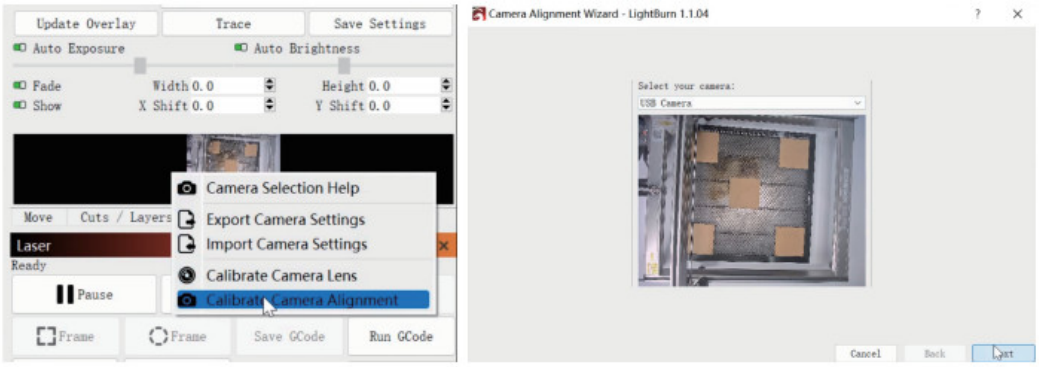


5.7 Place the dot card in five positions, left, right, top, bottom, and middle, and capture 5 times. If the captured result Score≤1 and the pattern is slightly deformed or not deformed, click Next; if the pattern cannot be captured, repeat step 2 Fine-tune the lens or move the position of the dot card to capture again (the recommended order of dot card placement is left, right, top, bottom, and middle) until the capture is successfully completed.

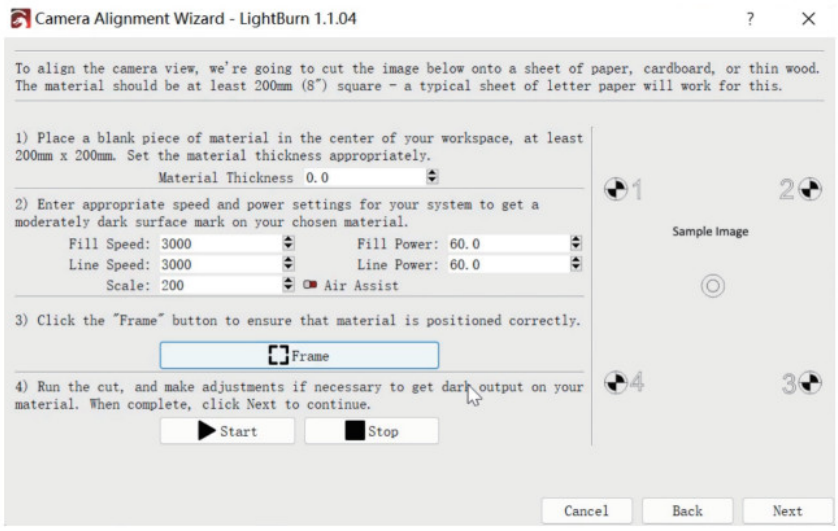


Calibration Camera Alignment

6.1 Take away the fixed focus card, click on the “Camera Alignment” window, if this interface is closed, please click “Camera Control” -> “Camera Alignment” -> “Camera” -> Next

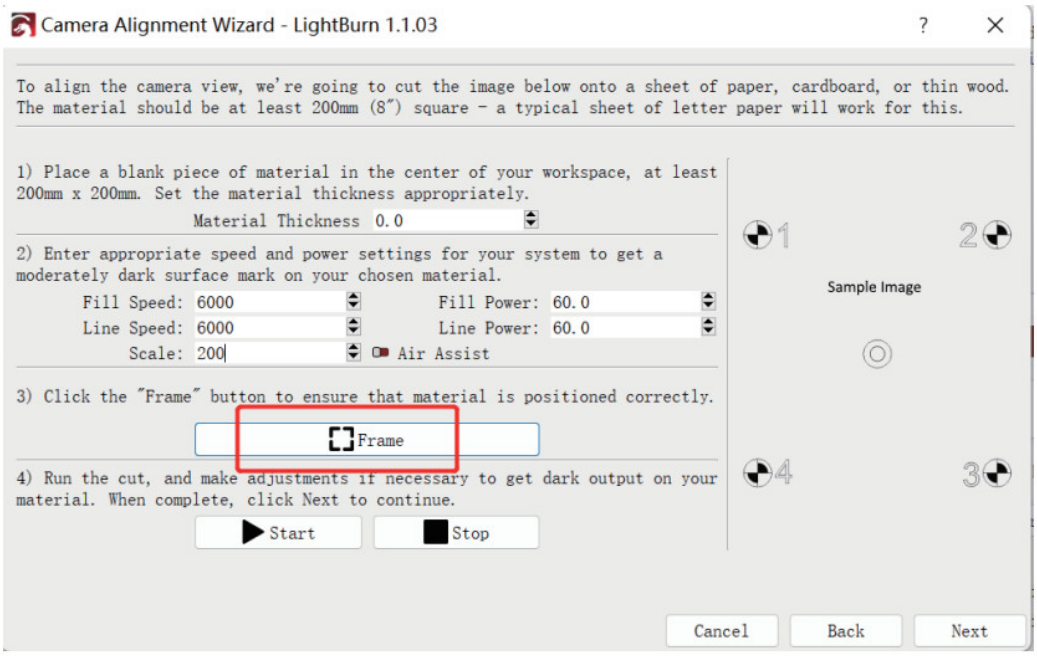


6.2 Set the engraving parameters (refer to the laser parameter table), and set the Scale value according to the actual positioning size, see the table below

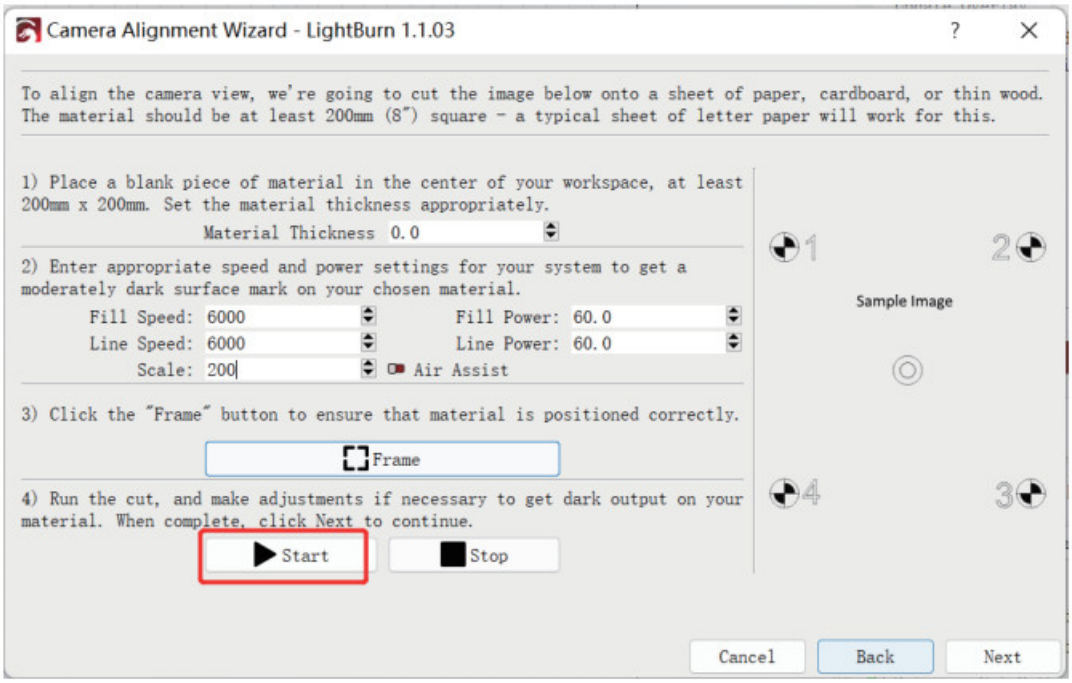


Scale	Sizemm^2
100	200*200
150	300*300
200	400*400

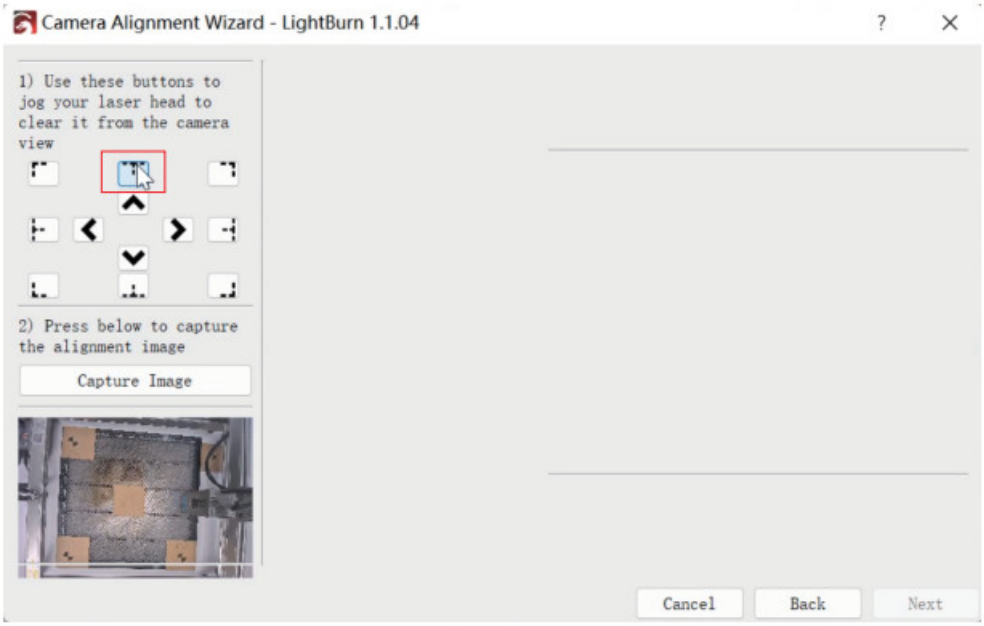
6.3 Click Frame to see if there is a collision, if there is a collision, you need to set a smaller Scale value, or recalibrate the camera



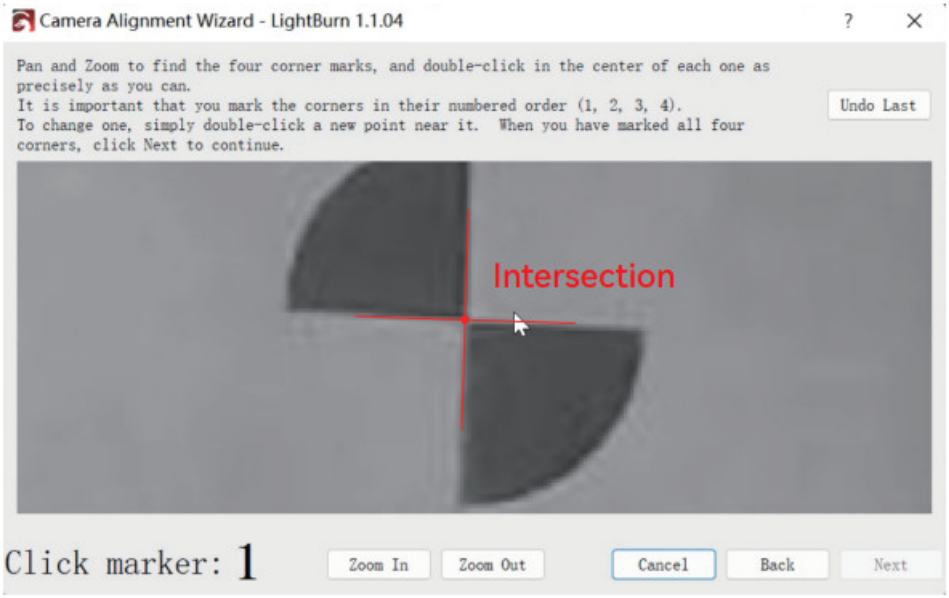
6.4 Click Start and make a positioning mark



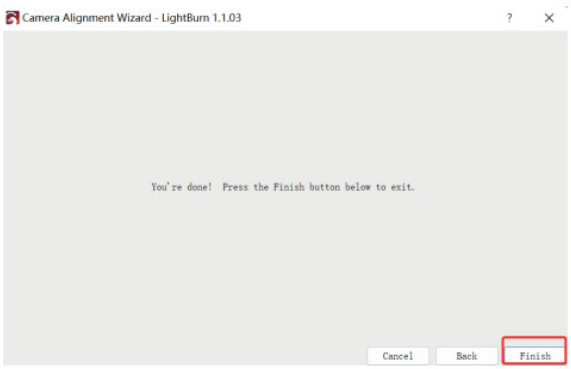
6.5 After the engraving is complete, click the button in the red box to move the laser to the upper position so as not to block the engraved pattern, click Capture Image, and then click Next.

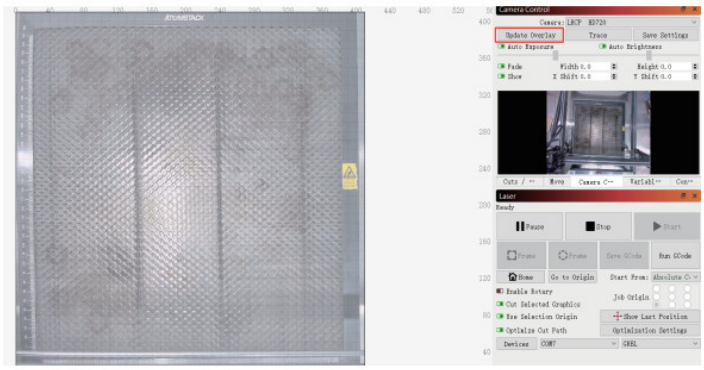


6.6 First zoom in on the pattern at position 1, double-click the cross point, and click the cross point position in the order of numbers 1-4. If the double-clicked cross has obvious deviation, you can click Undo Last or a blank position, and then double-click to re-select the cross point.



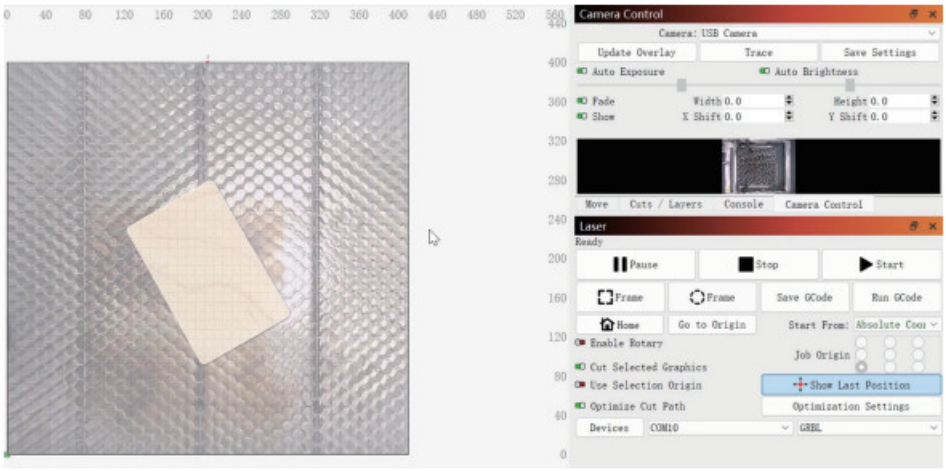
6.7 Remove the cardboard when finished and click Update Overlay



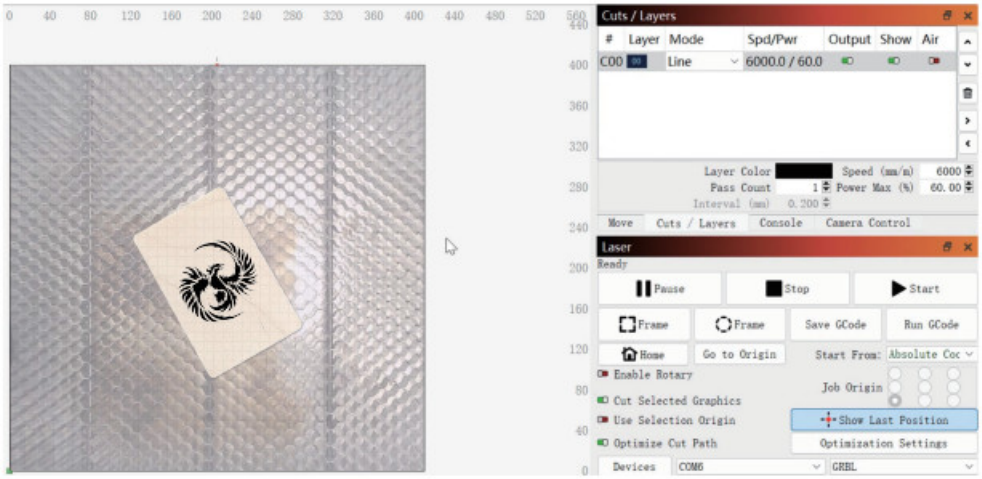


How to use positioning

7.1 Place the engraving or cutting material within the engraving range, and fix the focus, click “Home” to return the laser to the machine origin, click Update Overlay, and move the engraving pattern to the position you want to engrave.



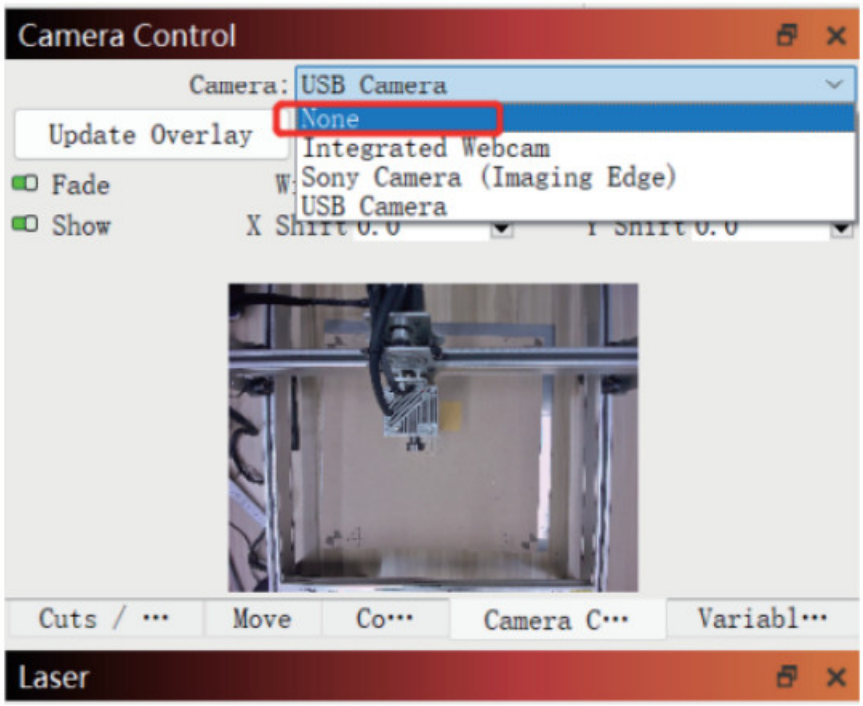
7.2 Set the parameters of engraving and click start



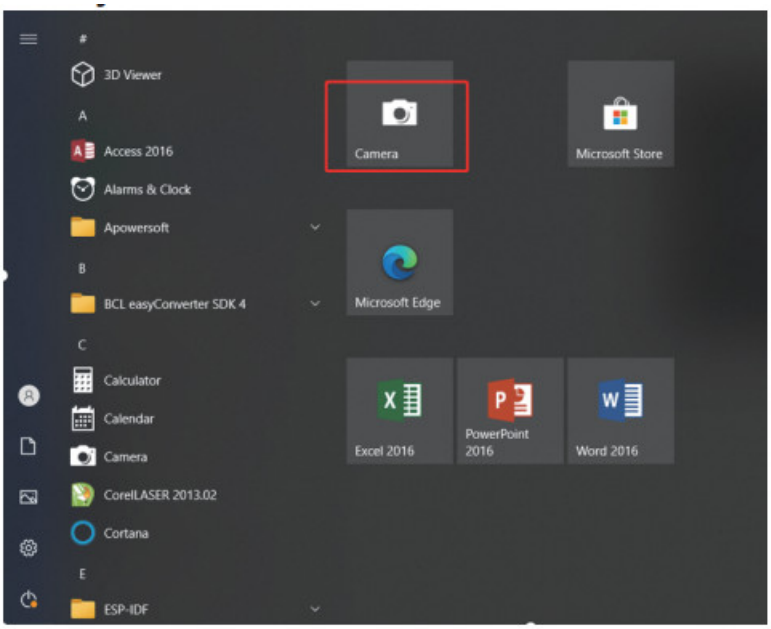
7.3 The engraving is completed, the effect is shown below

How to record video

8.1 Select None in the camera control to turn off the camera



8.2 Windows system, turn on the camera, it is recommended to select low resolution when recording video, so as not to occupy too much memory



8.3 The Windows system uses its own camera to record videos within 3H. If it exceeds 3H, it is recommended to download free video recording software, such as PotPlayer. It is recommended to use Camera Record-Video Recorder and Quick Player for macOS system.

FAQ

1. How to deal with the edge collision in Step 6.3 calibration camera alignment?

Check whether there is a phenomenon that the captured image is severely deformed and you continue to click Next during the process of calibrating the camera lens. If yes, please recalibrate the camera lens.

2. How to deal with the positioning accuracy error > 2mm?

1) During the process of calibrating the camera lens, whether there is a phenomenon that the captured image is seriously deformed and you continue to click Next? If yes, please recalibrate the camera lens. 2) After the

calibration of camera alignment is completed, whether there is a collision or the camera is moved, if the camera is collided and the camera is displaced left and right, please recalibrate the camera lens and the camera alignment.

3.Does it need to be recalibrated when changing the material to be tested, removing or adding honeycomb panels?

The height range between the camera and the measured object can be between 400-440mm, and no recalibration is required for changing the tested material, removing or adding honeycomb panels.

Customer service:
For detailed warranty policy, please visit our official website: **www.atomstack.com**
For technical support and service, please email **support@atomstack.com**
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Documents / Resources

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References

- AtomStack Official Website | Unleash Your Creativity With Laser