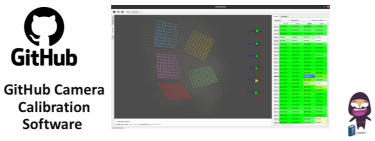

GitHub Camera Calibration Software User Guide

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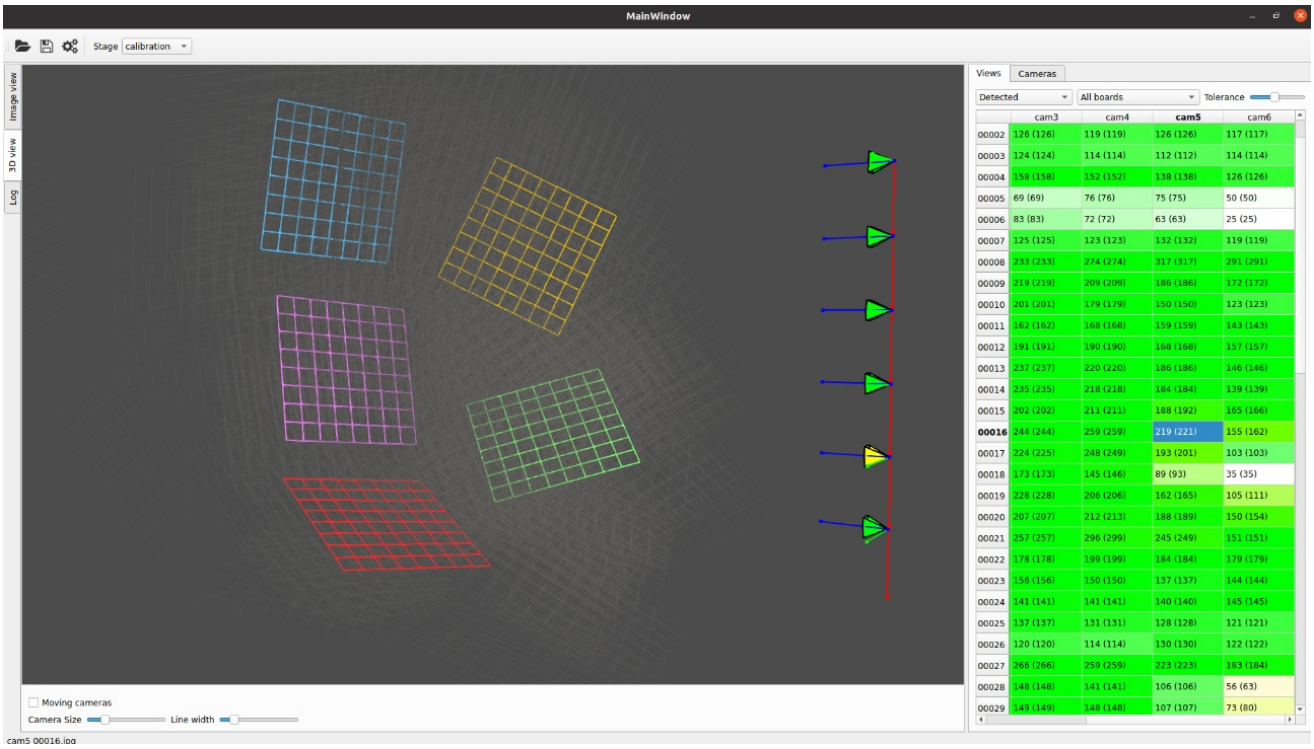
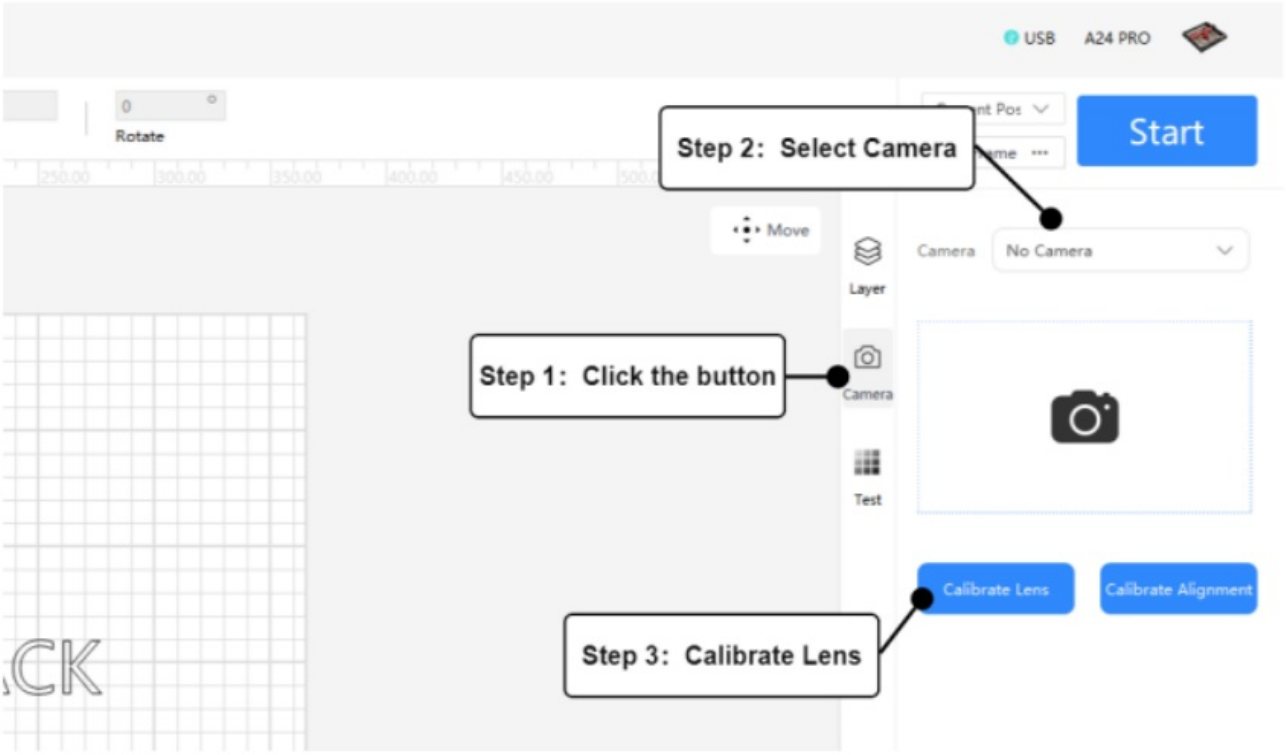
GitHub Camera Calibration Software

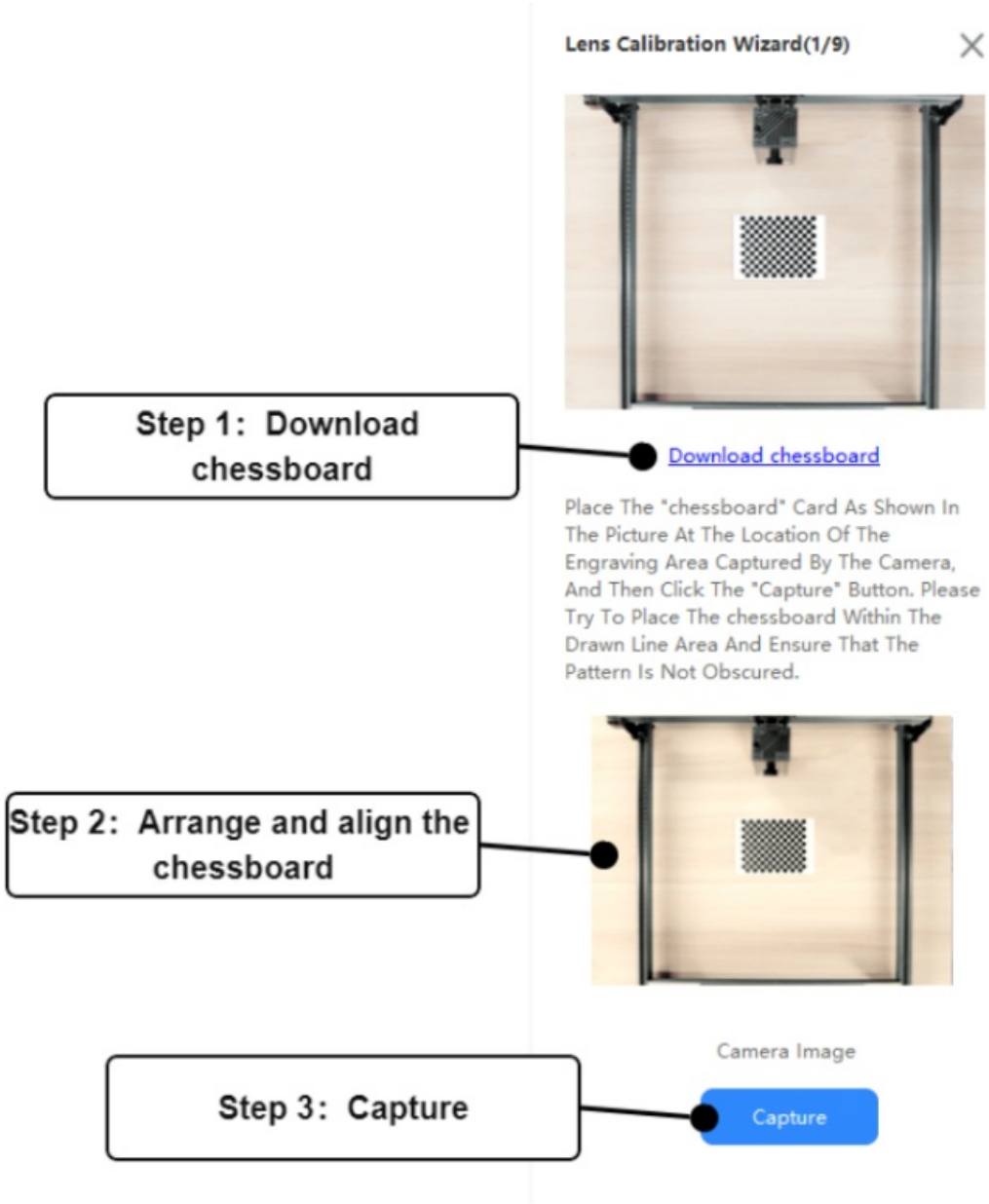


Camera calibration

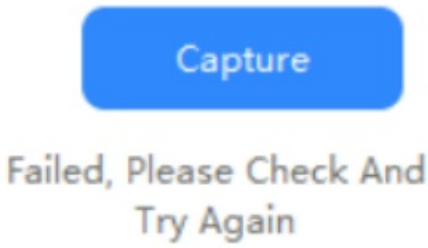
1. Before using the camera to update workspace background function, you need to calibrate this camera. Please complete the engraver addition first and connect camera to computer.
2. Click ·camera· button on the right side of workspace, select the connected camera in the pop-up camera settings, and click ·calibrate Lens· to enter camera calibration.



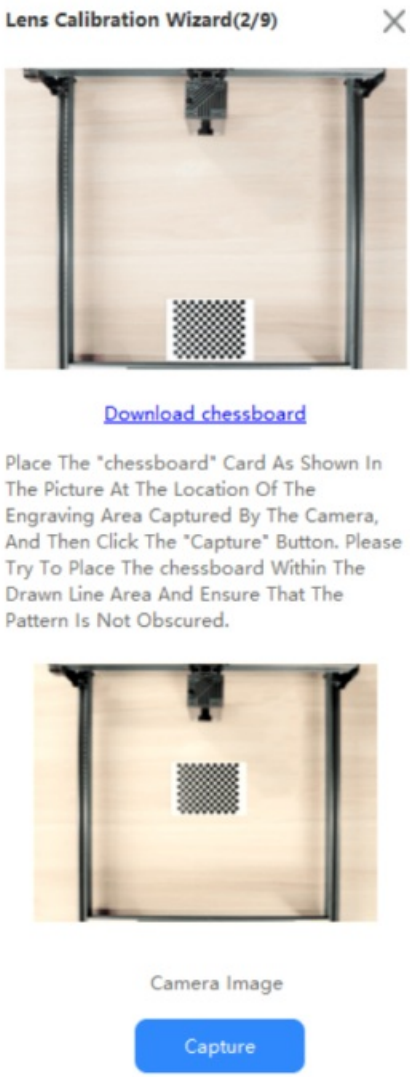
3. Steps in calibration
    1. **Step** 1: You need to download the picture “chessboard” to your computer and print the it on a paper, ensure the side length of square between 1 mm and 1.2mm
    2. **Step** 2: According to the diagram at top, place the “chessboard” paper to the same position as diagram.
    3. **Step 3**: Click ·capture· button below to detect the pattern when it is clearly visible.



If capture fails, please check and readjust the “chessboard” paper position to see if the pattern is clearly visible/obst ructed by obstacles. Click ·capture· button to try again when well checked.



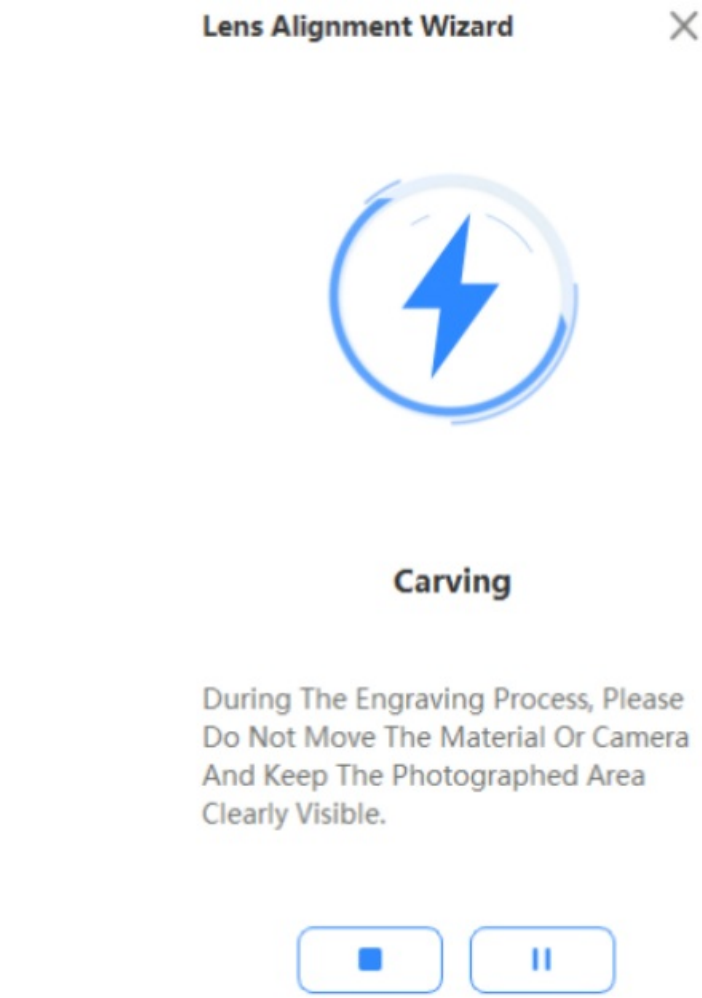
4. After first position is captured successfully, you need to calibrate the next “chessboard” position shown in diagram. Repeat the capture until all 9 position calibrations are completed, page moves to ·camera Alignment·.



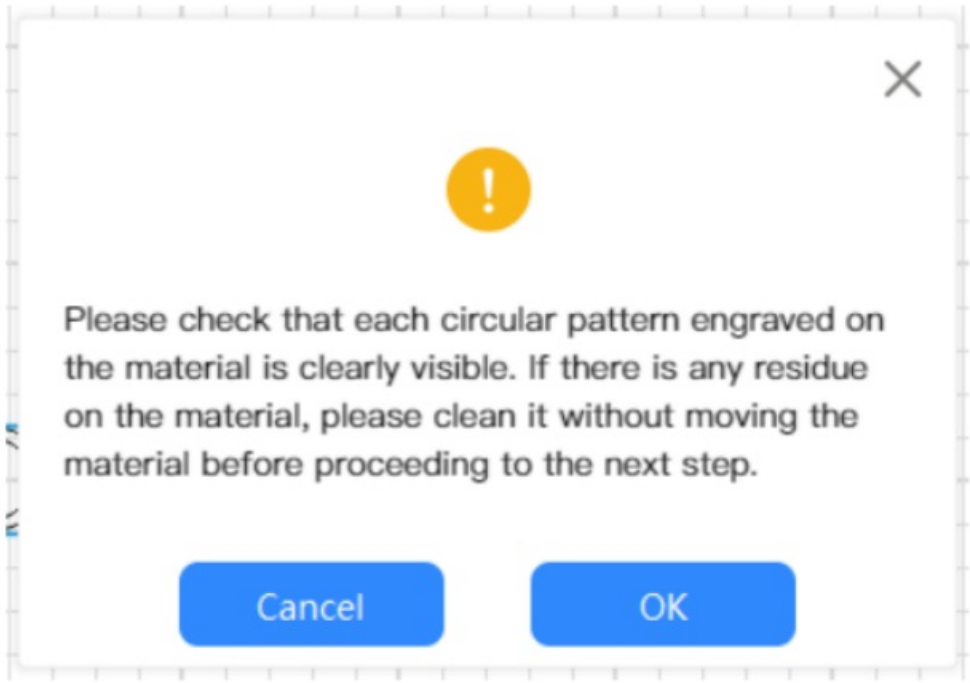
5. **Steps in alignment**
    1. Step 1: You need to set the engraving area to be photographed first.
    2. Step 2: Place light-colored, non-textured materials in the engraving area (it is recommended to use a paper). The size of the materials needs to be larger than the range of the engraving area you set to shoot.
    3. Step 3: The laser will engrave 49 circular patterns on the material, so you need to set the laser engraving parameters.
    4. Step 4: Frame to check whether the engraving area is proper, and click “Start· button to start engraving.
6.

Please do not move the material or camera in when moves to engraving page, and keep the photographing area clearly visible. Realignment is needed if you stop engraving/exit the process during engraving.

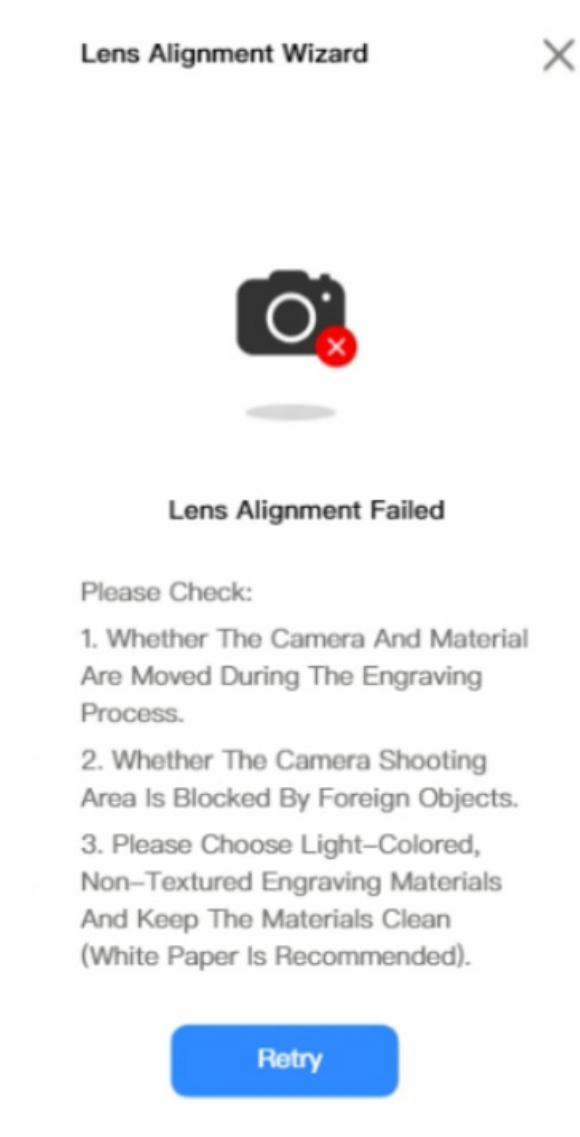
7.



A pop-up window comes to the page after the engraving is completed. Please check that each circular pattern engraved on the material is clearly visible. If there is any residu e on the material, please clean it without moving the material and click “OK”.

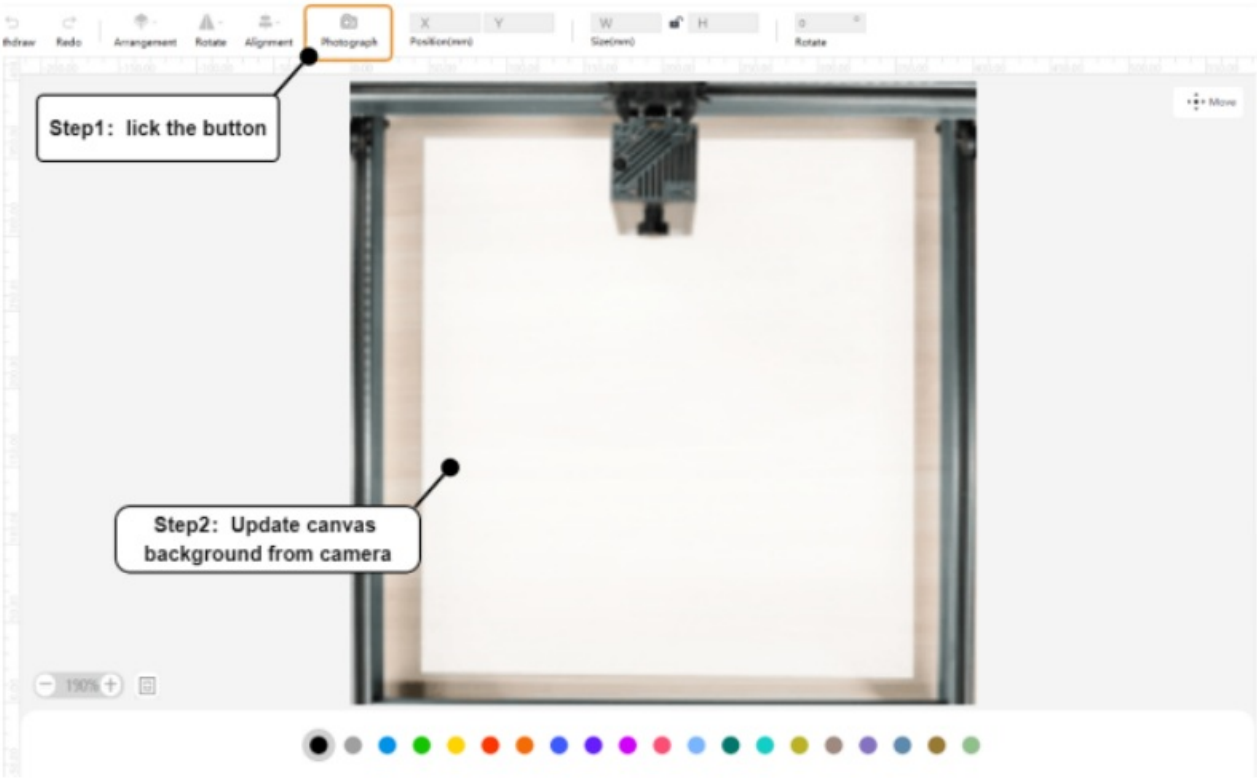


8. After alignment is successfully completed, you can refresh workspace background through “Photo· function. If alignment fails, you need to follow the prompts to check the steps, and click “Retry· below to realign the camera.



9. After calibration, you can click “Photograph” button at the top of workspace to take a photo with the camera to update workspace background, and use the background picture to accurately align the image. If the accuracy of background photograph is not ideal, you can recalibrate the camera by clicking

calibrate Camera Lens· on the camera homepage.



Documents / Resources

	GitHub Camera Calibration Software [pdf] User Guide Camera Calibration Software, Software

References

- User Manual