

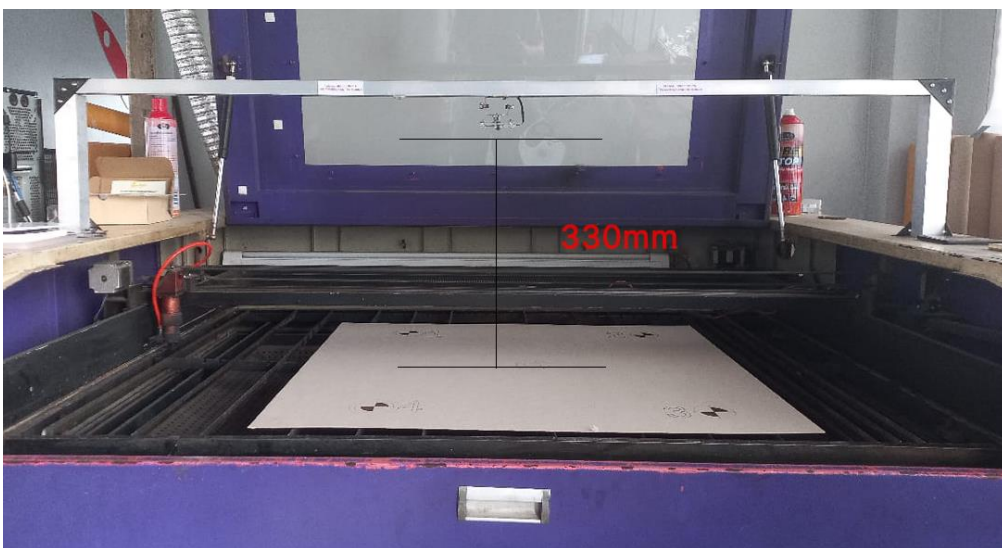
LIGHTBURN CAMERA INSTALLATION AND ADJUSTMENT

Camera installation and testing:

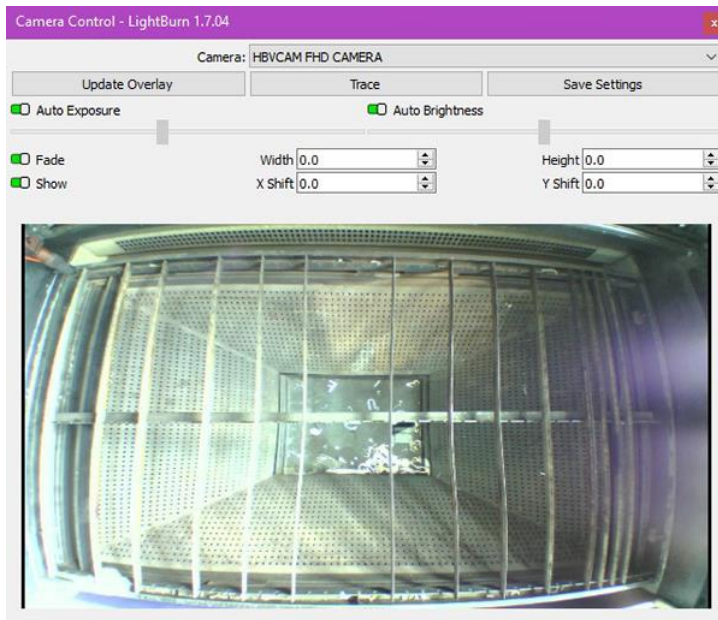
FHD Camera (purchased from Shopee 1000 THB) was used with the self-made mounting support:



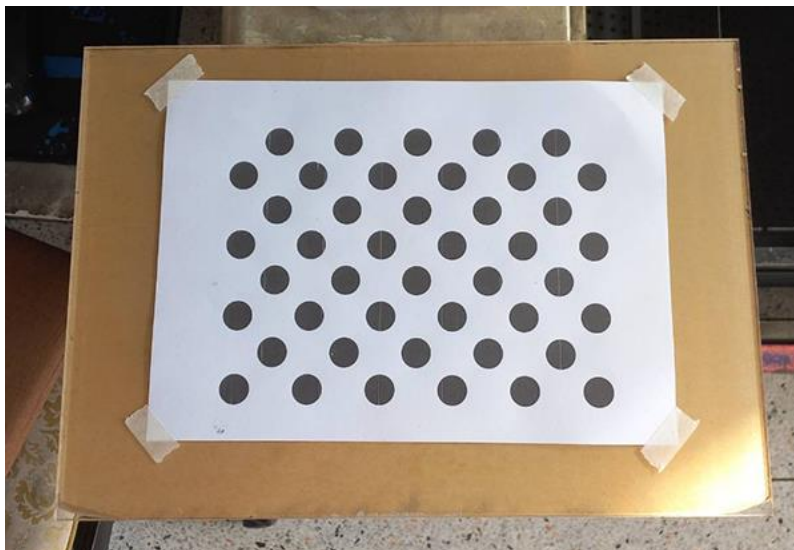
Distance between Camera and cutting table is about 330 mm:



Camera connected via USB and uses default Windows Camera driver.
The camera was physically aligned at the center of the table:

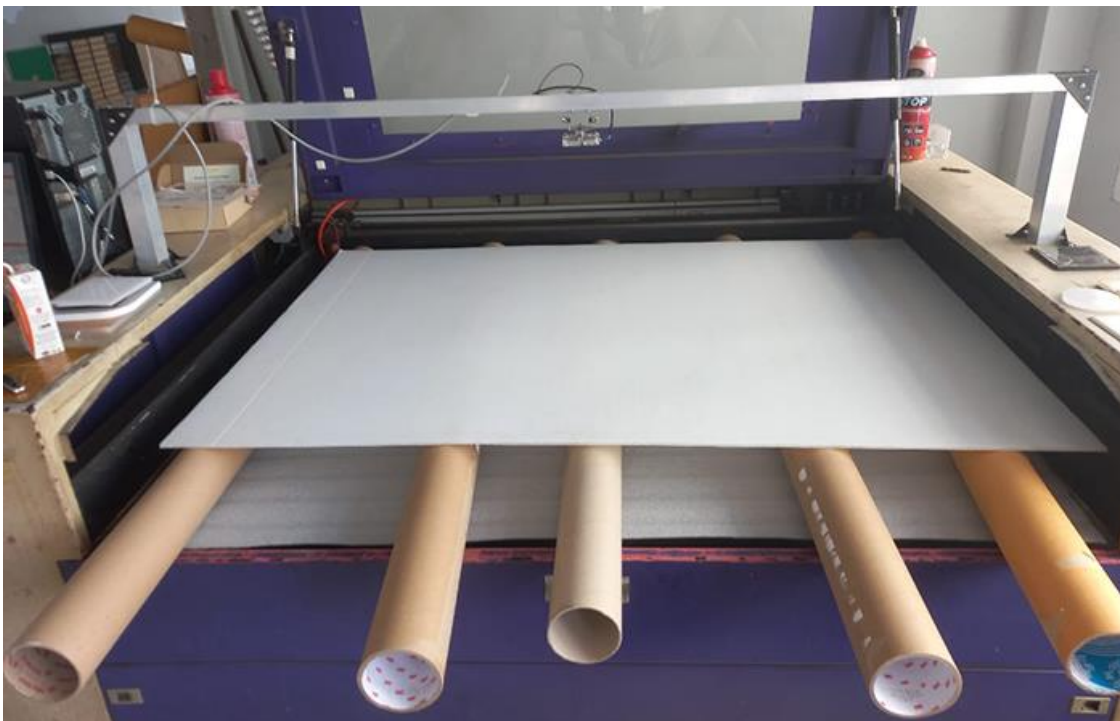


Put the Circles Calibration Pattern A4 size under the Camera (**Pattern is supposed to be perfectly flat – better to glue it on some solid surface**):



If you can't see any black dots on Circle Patterns in Camera View – it means the white balance on the Camera is very bad (not enough light, very dark background etc.) – so you CANNOT start any calibrations. **Better to put some white color sheet under it.** Also I used curtains on windows to make white balance a bit better.

This Camera has a very wide angle (around 150 degree) and it's really tricky to calibrate it. You may want to put some rolls under the white sheet to decrease Camera's height. It makes the Calibration process much easier:



If physical Camera's alignment is ok, white balance on picture is ok - you can start all calibrations.

Camera lens calibration:

Here is the link to video where the lens calibration process was explained very clearly. I just want to notice - when you capture image, better to keep score under 0.3 (≤ 0.3). This score will allow you to calibrate distortion of lens precisely.

Camera Lens Calibration video instruction:

https://www.youtube.com/watch?v=A1ctQdbyn7A&list=PLi-NJhf5o4XRJYGH7VNdUv9RQ8hqPvQMC&ab_channel=LightBurnSoftware



LightBurn Camera Lens Calibration

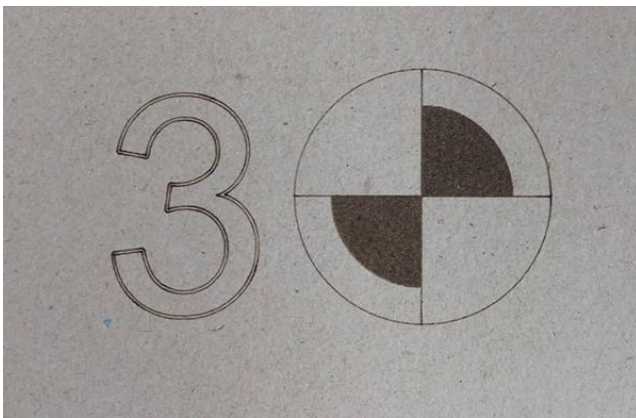
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A walk-through of the camera lens calibration process in LightBurn.

Also I saved this video in folder: LightBurn Camera Lens Calibration.mp4

Camera Alignment calibration:

Here is the link to video where the camera adjustment calibration process was explained very clearly. I just want to notice – before you start adjustment calibration, choose material with enough dimensions and try **to engrave** some lines and filled squares/circles on it (to set correct speed and power of the laser). I used big cardboard sheet and these settings: Speed = 100, Power = 30 for contrasting engraving:



Camera Alignment Calibration:

https://www.youtube.com/watch?v=ONnmCaoUkLQ&ab_channel=LightBurnSoftware



LightBurn Camera Setup

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A walk-through of the camera calibration and alignment process with LightBurn. If you need help, please come to our support forum at <http://forum.lightburnsoftware.com>

Also I saved this video in folder: LightBurn Camera Alignment.mp4