

CCD Calibration

The following document will explain the steps needed to reinstall the CCD camera when the LV-290 Rotary is removed.

CCD Camera Calibration

- This calibration is to identify the offset between the laser beam and the CCD camera. This will allow for a very tight print cut.

Step One

- Follow the instructions in document “prep for lv laser engraver using adobe” and “Print Cut Work Flow” to generate a PRN file for this calibration.

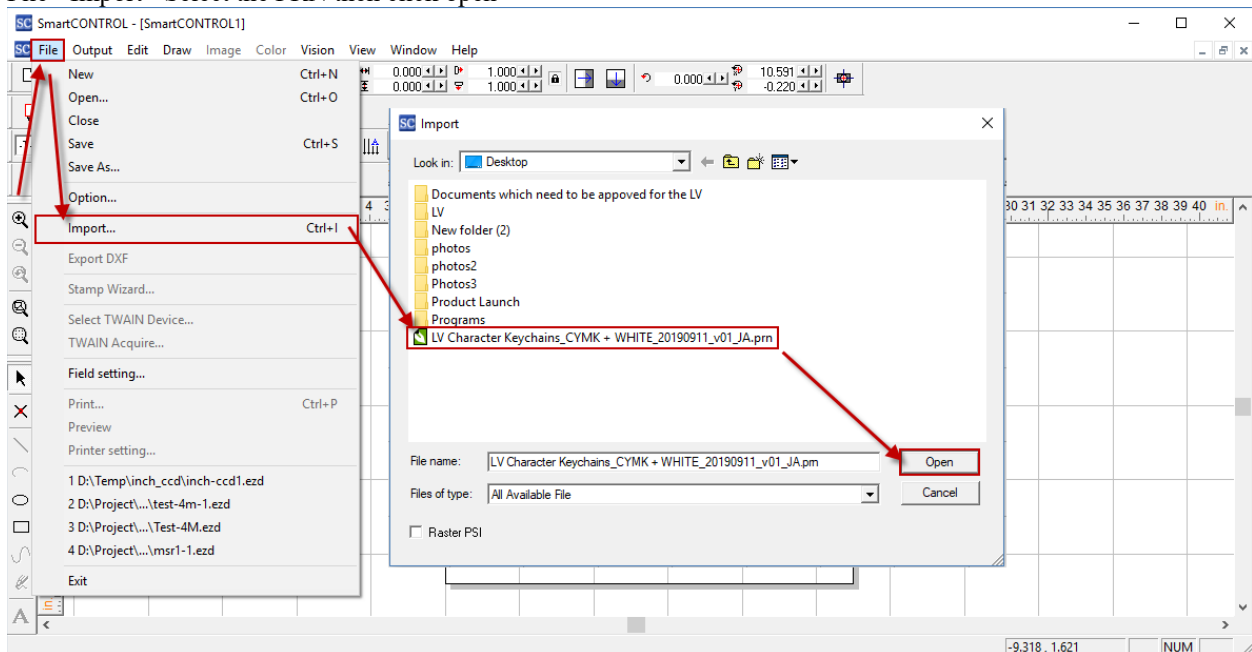
Step Two

- You will need a black surface for this calibration. For this example, I am using a piece of 3” x 3”, 3mm thick piece of wood which I covered in a black piece of vinyl.

Step Three

- Start SmartCONTROL software. Click ok on the pop-up and create a new file. Import the PRN from Print Cut workflow.

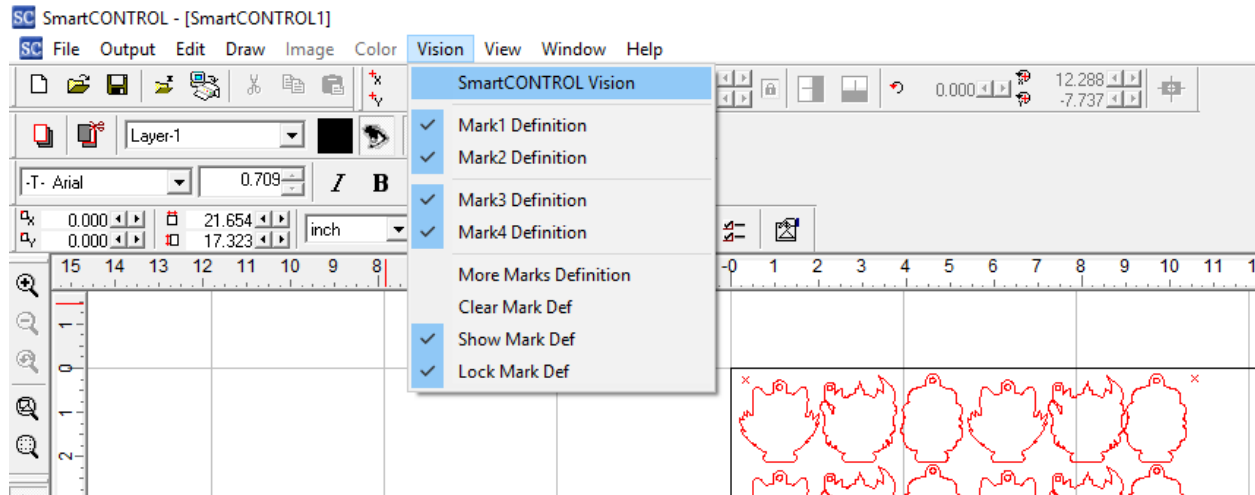
File> Import> Select the PRN then click open



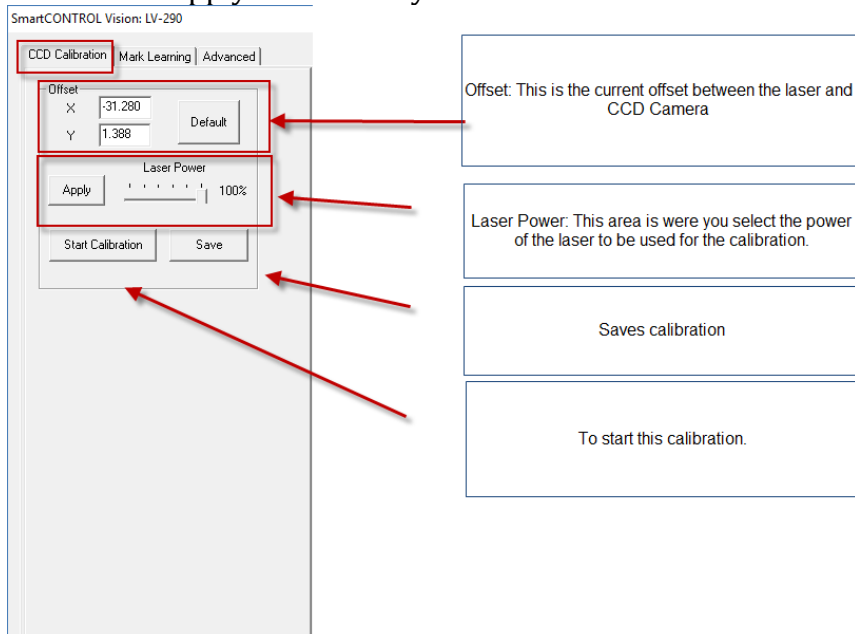
Imagine.

Step Four

- Select Vision> SmartCONTROL Vision

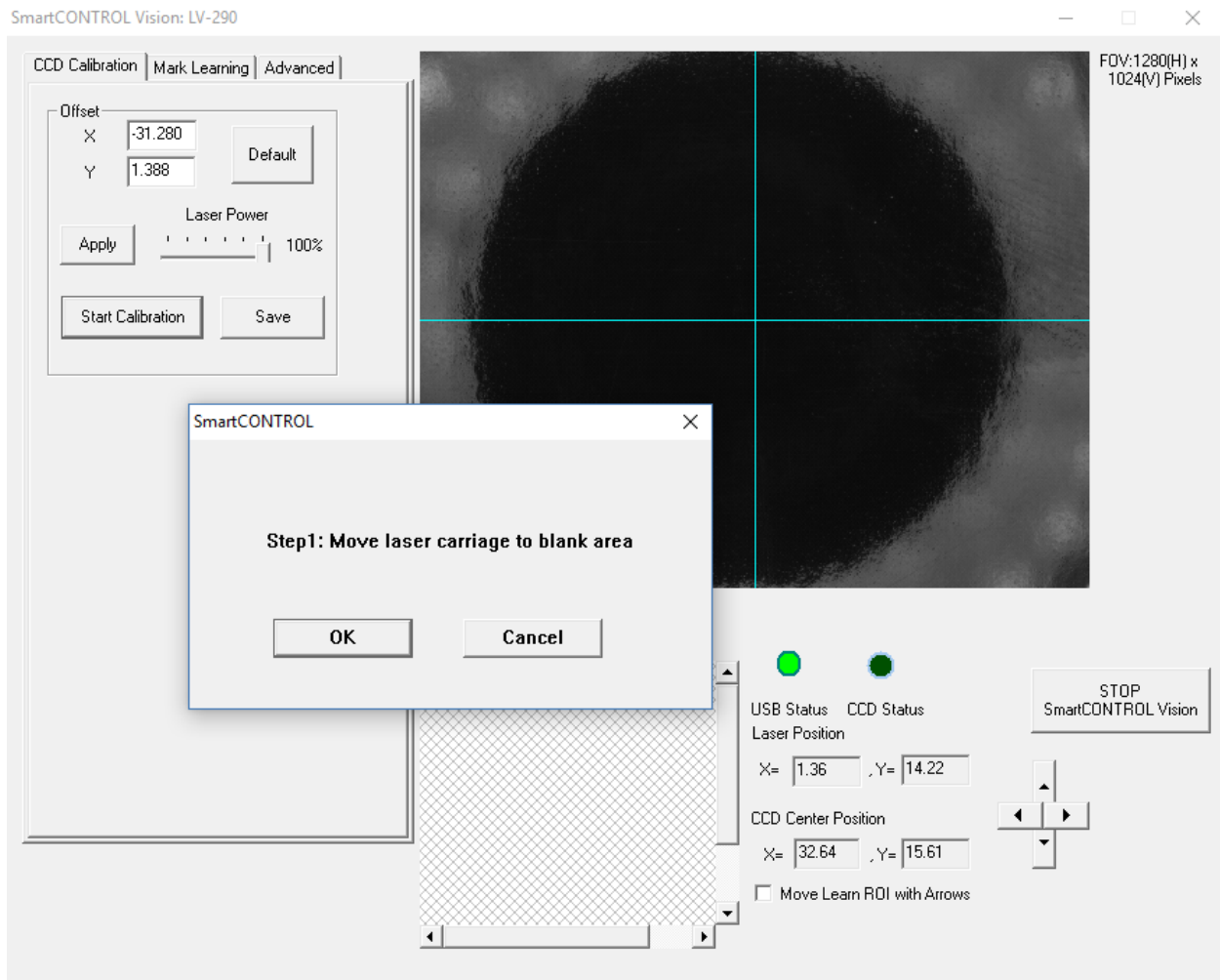


- Select “CCD Calibration”
- Use the slider to adjust the cutting power for the material being used.
- Next: click “Apply” followed by “Start Calibration”

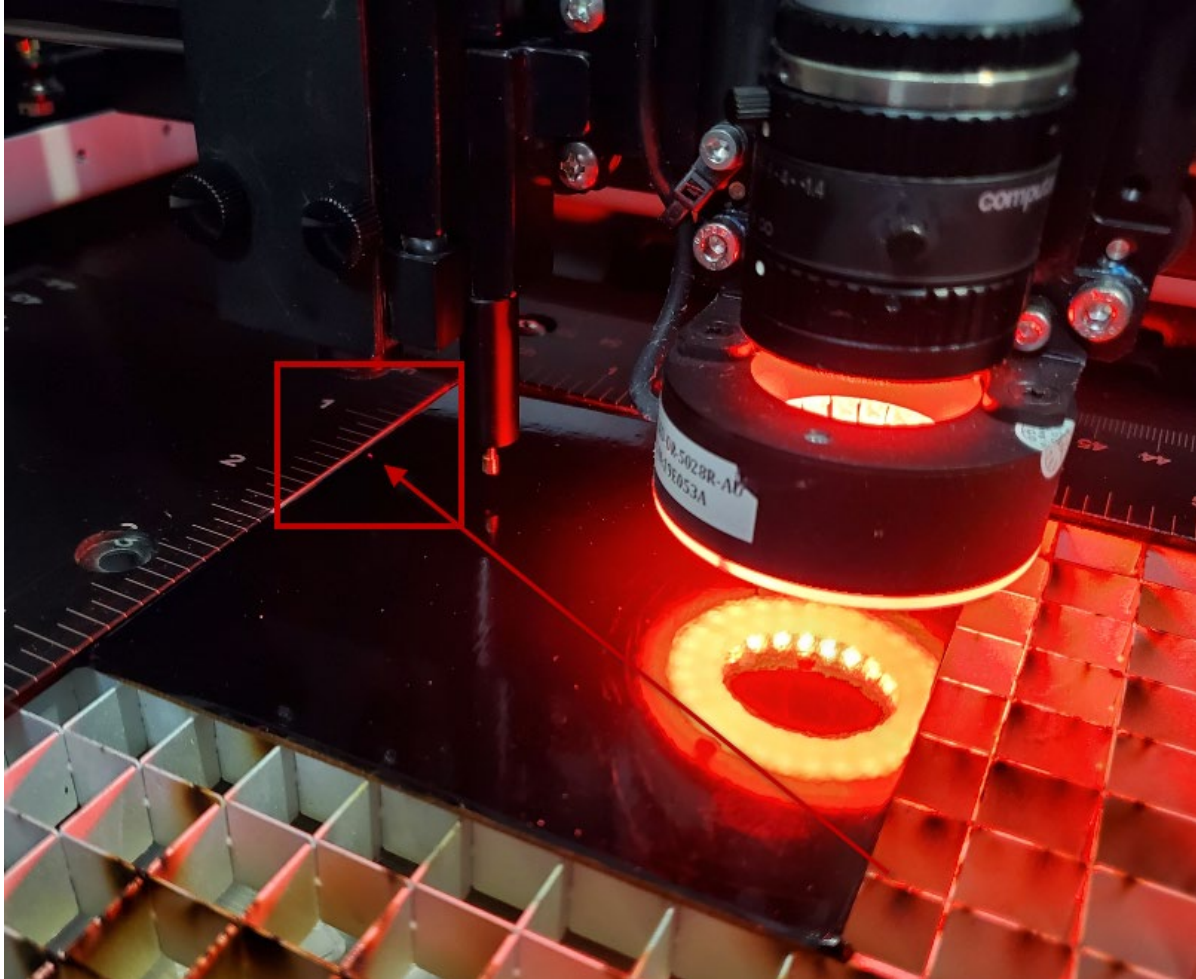


Step Five

- Place the chosen black media on cutting table (top right recommended). Using the black knob on the right side of the LV-290, adjust the cameras light until the material is clearly visible in the display below.
- Click “Start Calibration”. You will receive the pop-up message shown below. Gently adjust the carriage by hand placing the laser pointer over any unused area of the material near the upper left-hand side. **NOTE:** The area that will be marked is 3mm by 3mm.
Click “OK” to start the calibration marking process. **Note:** please make sure that the key is turned on and the lid is closed for these steps.



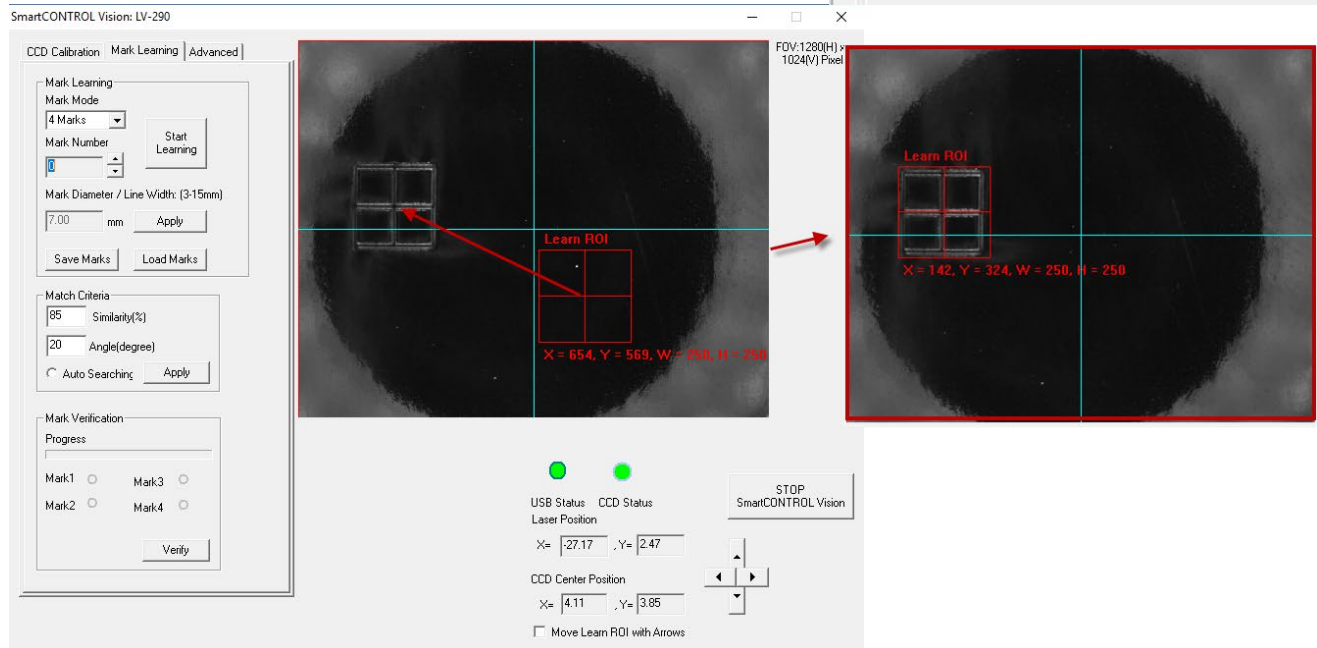
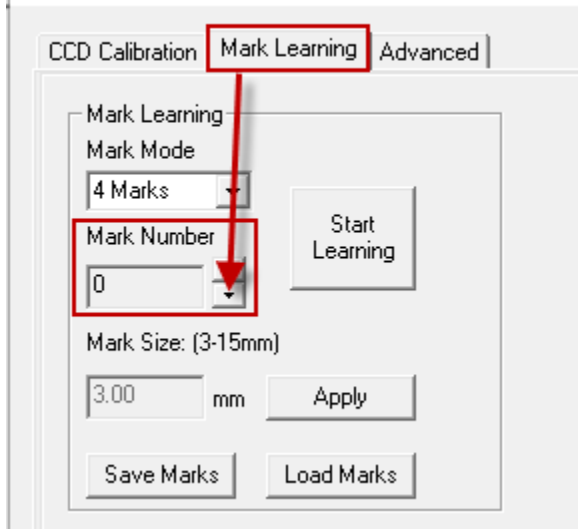
- The following image is an example showing how to use the laser pointer to line up where the LV-290 will mark/engrave.



Step Six

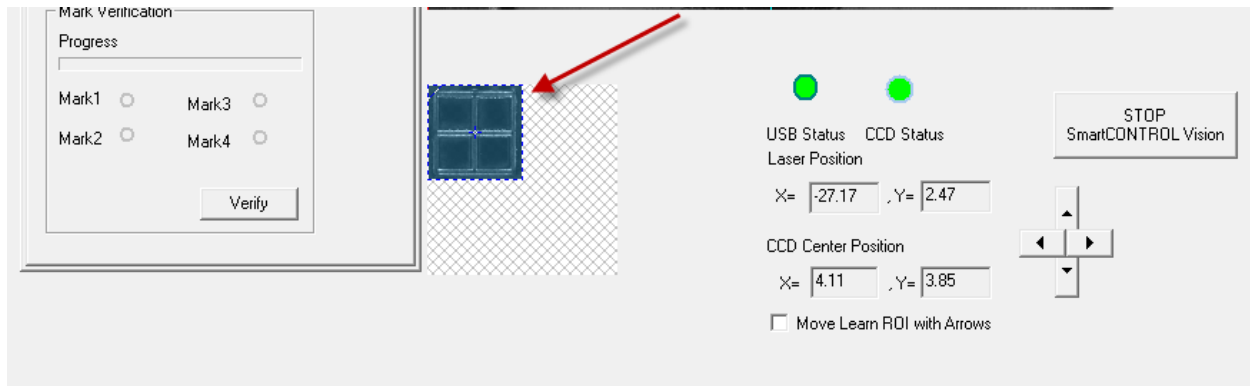
- When the calibration marking is complete, the CCD camera will automatically move over the top of the mark.
- Next: Click on “Mark Learning”
- Change the Mark to “0”
- **Next:** Using your mouse, drag and drop the **Red ROI icon** (shown below) over the new calibration mark.
- **Next:** click the “Start Learning” button. A snapshot of the image will be automatically taken to confirm.

SmartCONTROL Vision: LV-290



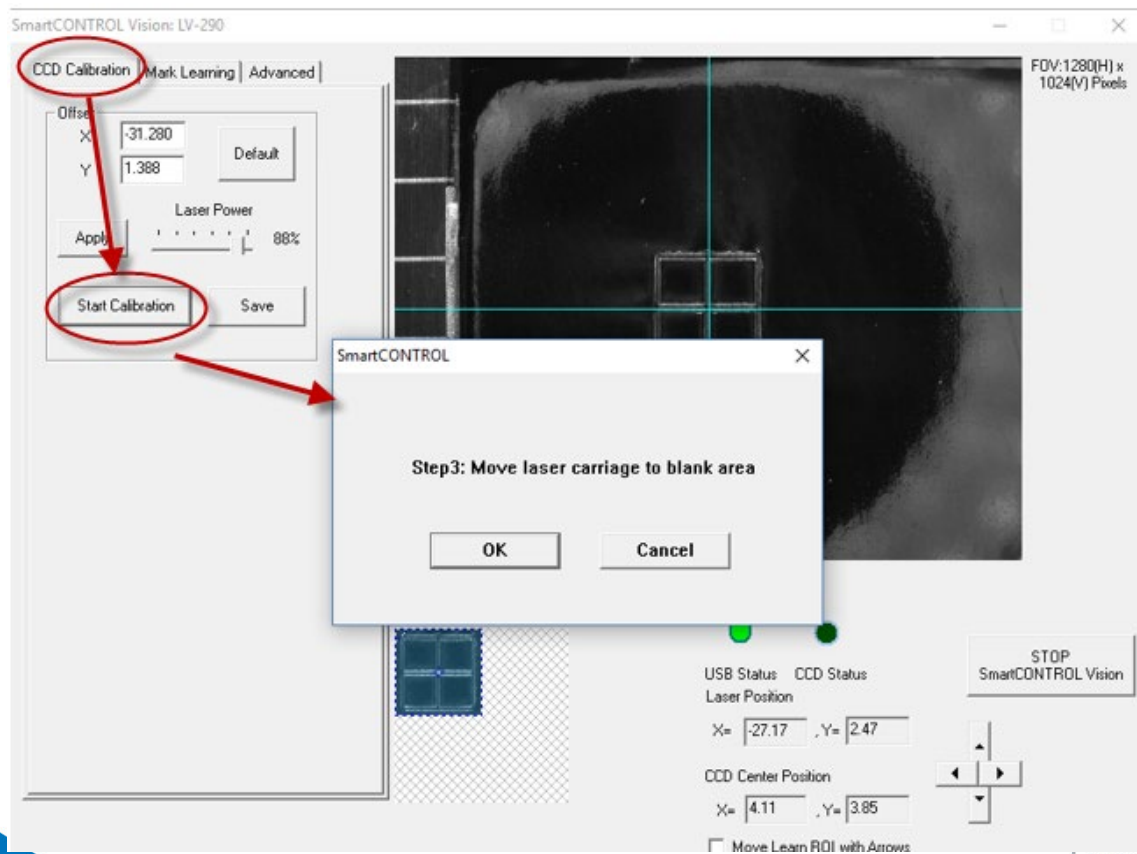
Imagine.

Snapshot image shown below.



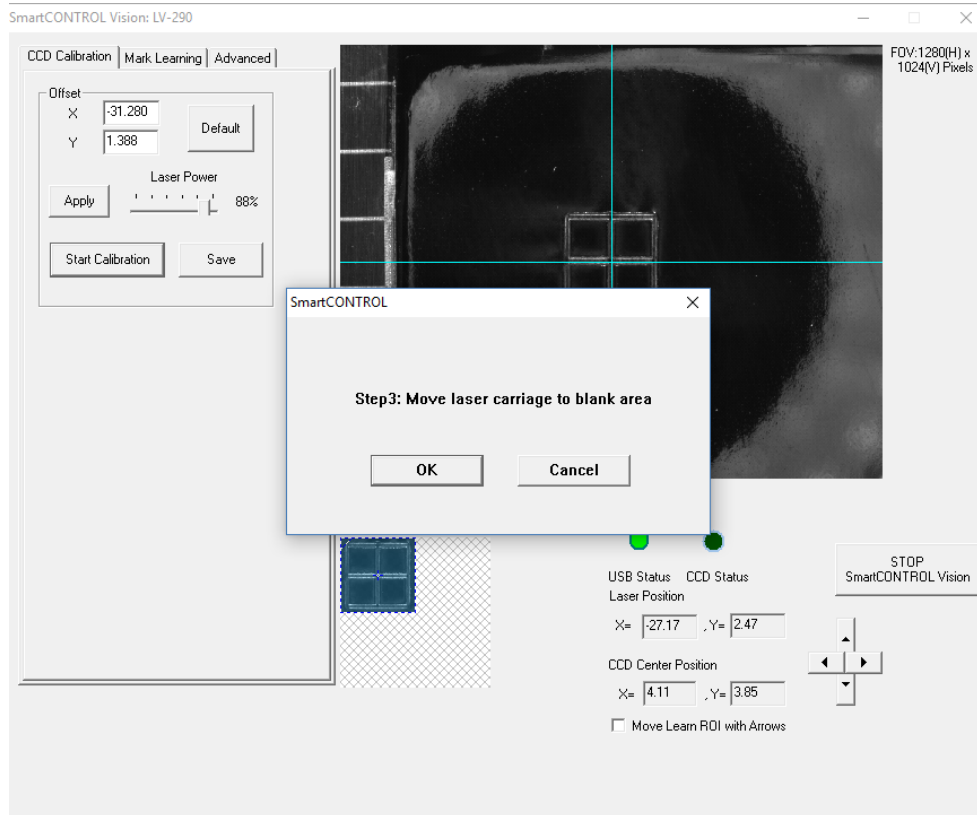
Step Seven

- Click on “CDD Calibration” tab followed by “Start Calibration”
- Adjust the carriage by hand making sure the laser pointer is anywhere to the right-hand side of the original mark.
- Next: Click “OK” on the pop-up box shown below.



Imagine.

Step Eight



- Move carriage a different spot on the work piece and click "OK".
- The machine will mark and measure the laser offset.

- If the machine failed. Please repeat the steps in this document.

