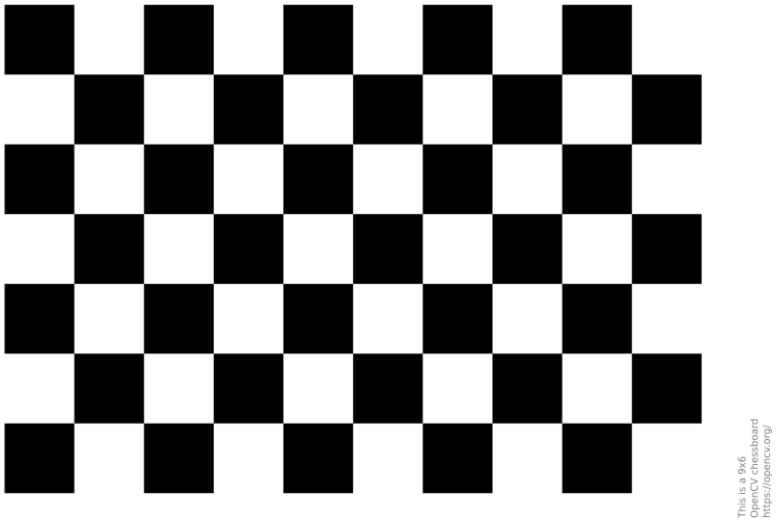
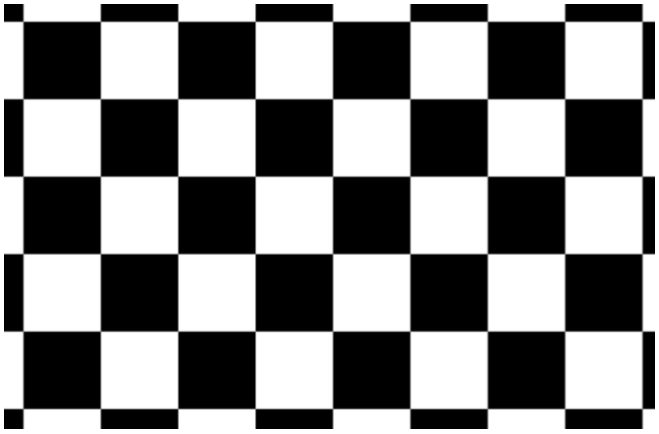
Steps for Camera Calibration:

1. Print the chess board pattern on A4 paper (file attached with this document).



Original Pattern

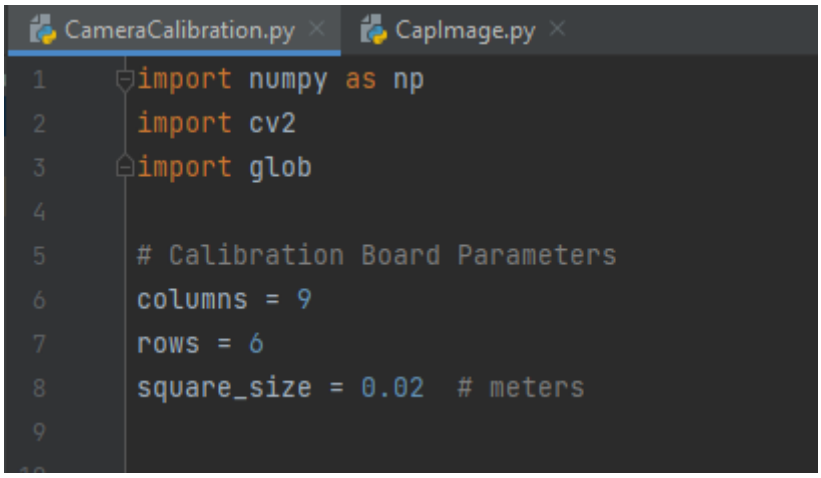
2. We omit the outer border and focus on the inner chess board pattern which looks like this:



It has 9 columns and 6 rows

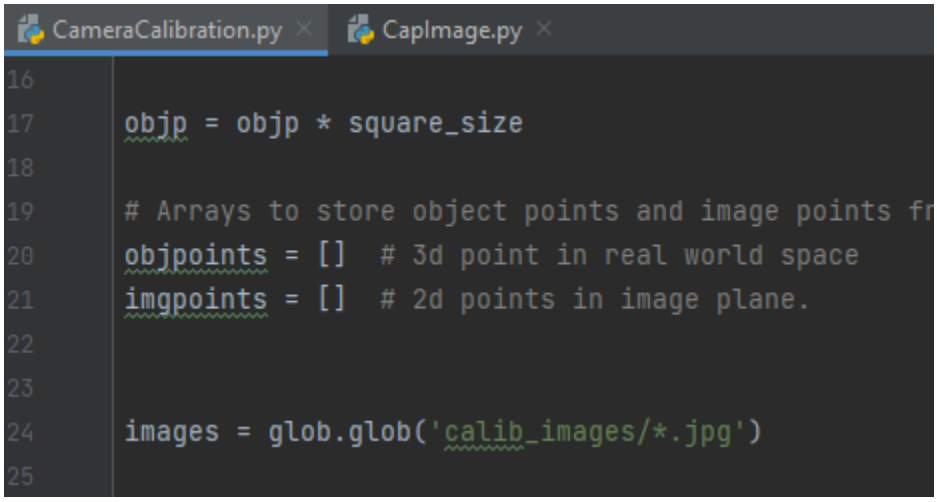
In our python script, edit the columns and rows.

3. After printing the chess board pattern measure the square size with ruler and note it down. It will be close to 20 mm. Update your square size value in meters in the script.

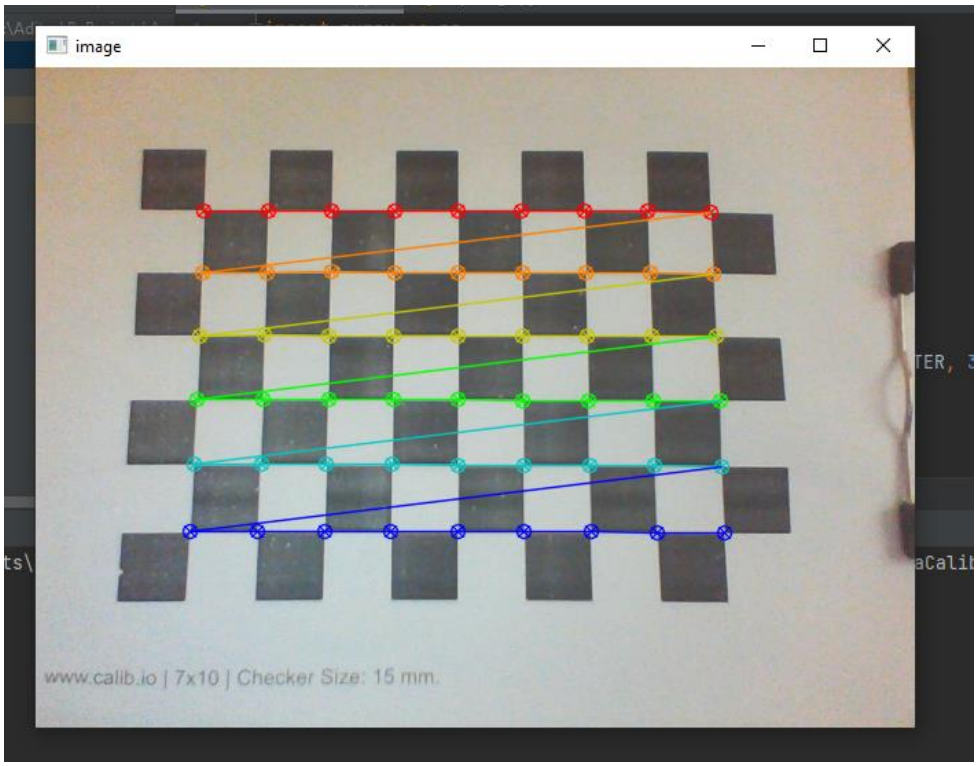


4. Paste the chess board pattern on a flat surface (e.g. writing pad). Make sure that the paper is as flat as possible and take images of the pattern from multiple angles and distances with your camera that you want to calibrate.
   Check the calib_images folder to clear any doubts regarding images. More the images, better the calibration. Take at least 50-60 images.

5. Copy all the images to the calib_images folder or make a new folder and edit the name in the script.



6. Run the python script. Check if the corners are identified correctly. If not delete that image from the calib_images folder.



Check the images and close the image window. On closing the final window the camera matrix will be printed along with the distortion coefficients. Note them down for future use.