Recommendations for perfect calibration frames

1- Print the provided calibration pattern (camera-calibration-checker-board_9x7.pdf) in a 1:1 scale
2- Tape the printed paper on a firm board (check samples at the end of this document)
3- Take various frames (20-30) at different angles and save them under /capture subfolder (create one if not present.
4- Run RE_cameraCalibration_JSON_Visual.exe and save the output JSON file with your lens name.
5- Use the generated JSON in Aximmetry or Unreal by using the (REtracker_LensDistort_JSON.xcomp) compound and link it as per the attached samples
6- Enable manual lens distortion for your camera

Attention! Verify your calibration pattern size. Each square should measure exactly 20mmX20mm after print.

The white space (marked with red on the picture below) between the outer squares and the object boundary should be at least 1 square wide, like this:

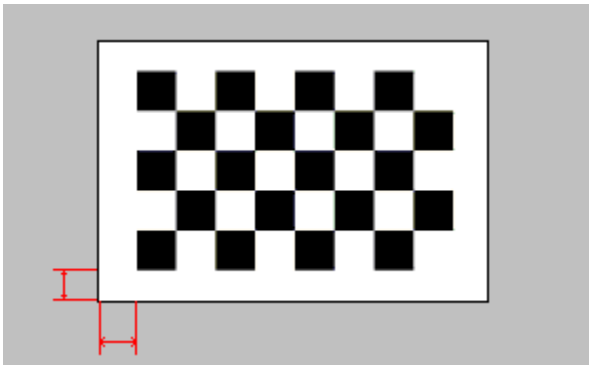


Figure 1. Calibration pattern

- All the squares must be clearly visible
- Use a tripod
- Take 25 images and more
- Use a paper size ".3" and more
- Square size is 3-5 cm
- The chessboard must be plane
- Take photos from these positions + from the top of the chessboard

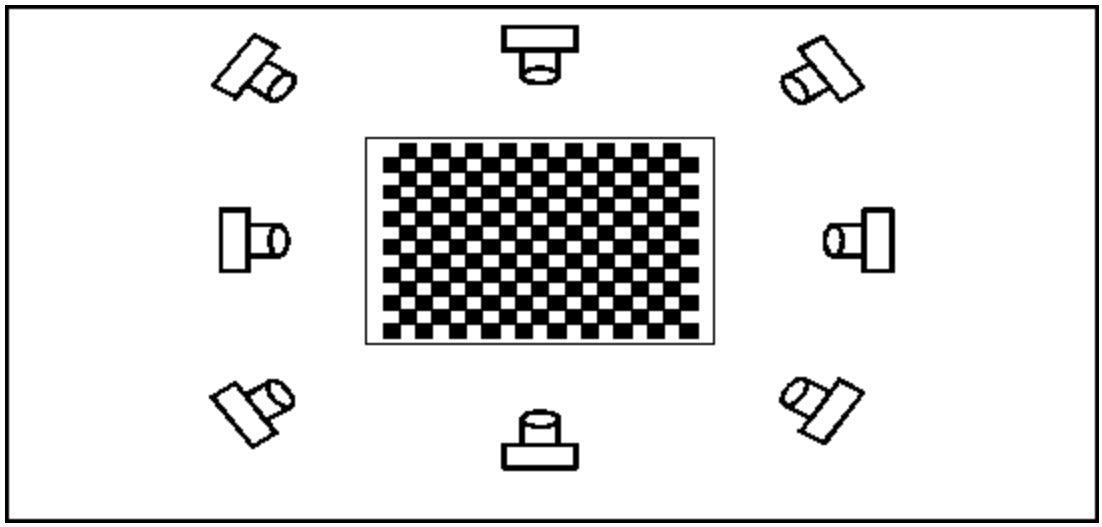


Figure 3. Camera positions

- The tilt angle is constant (for example 45 deg)

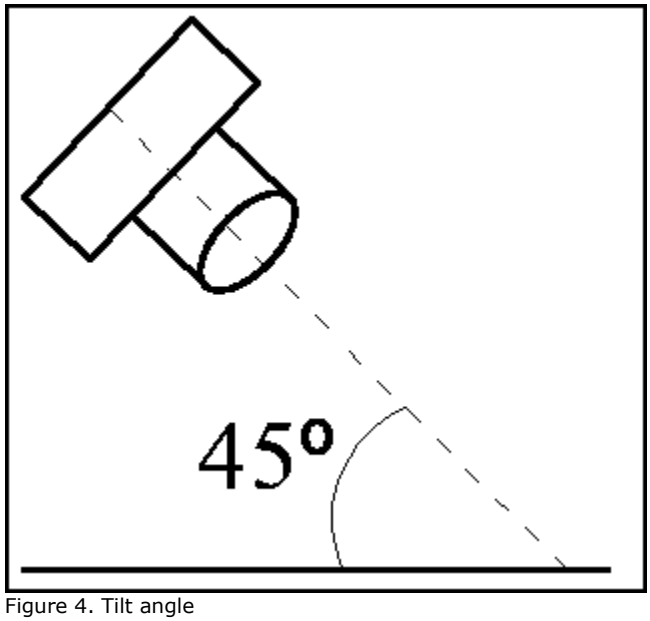
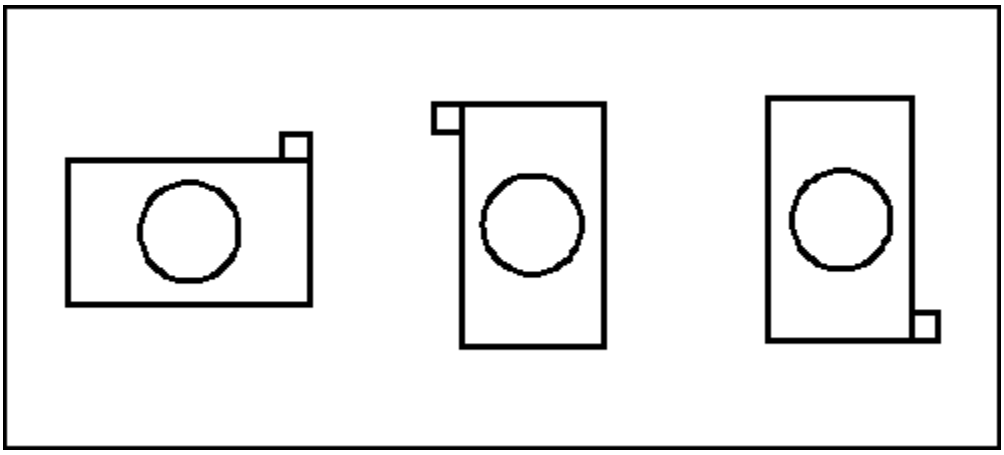
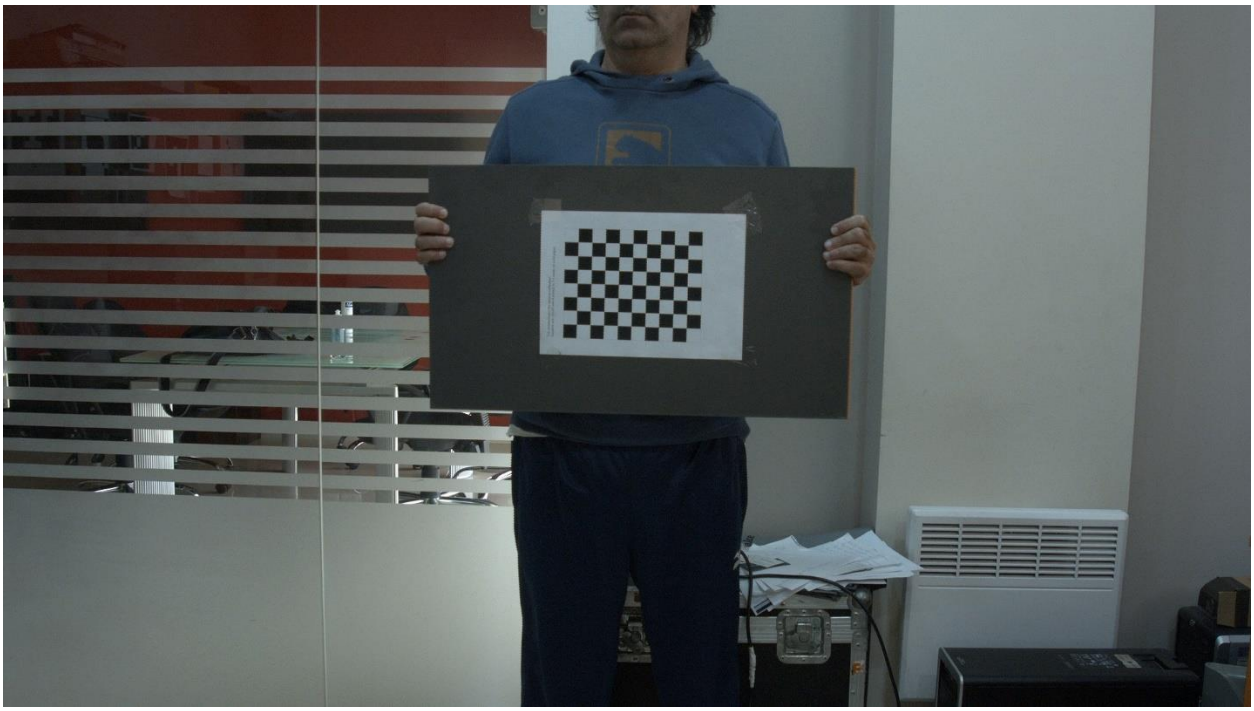
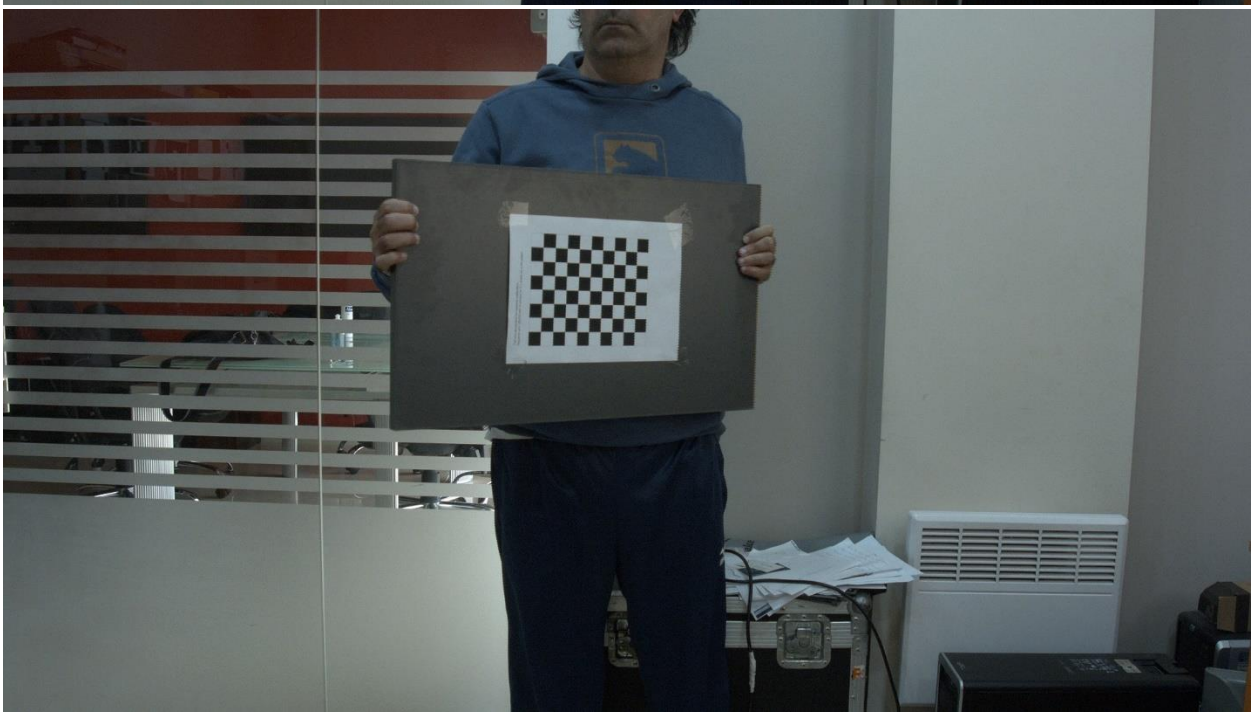


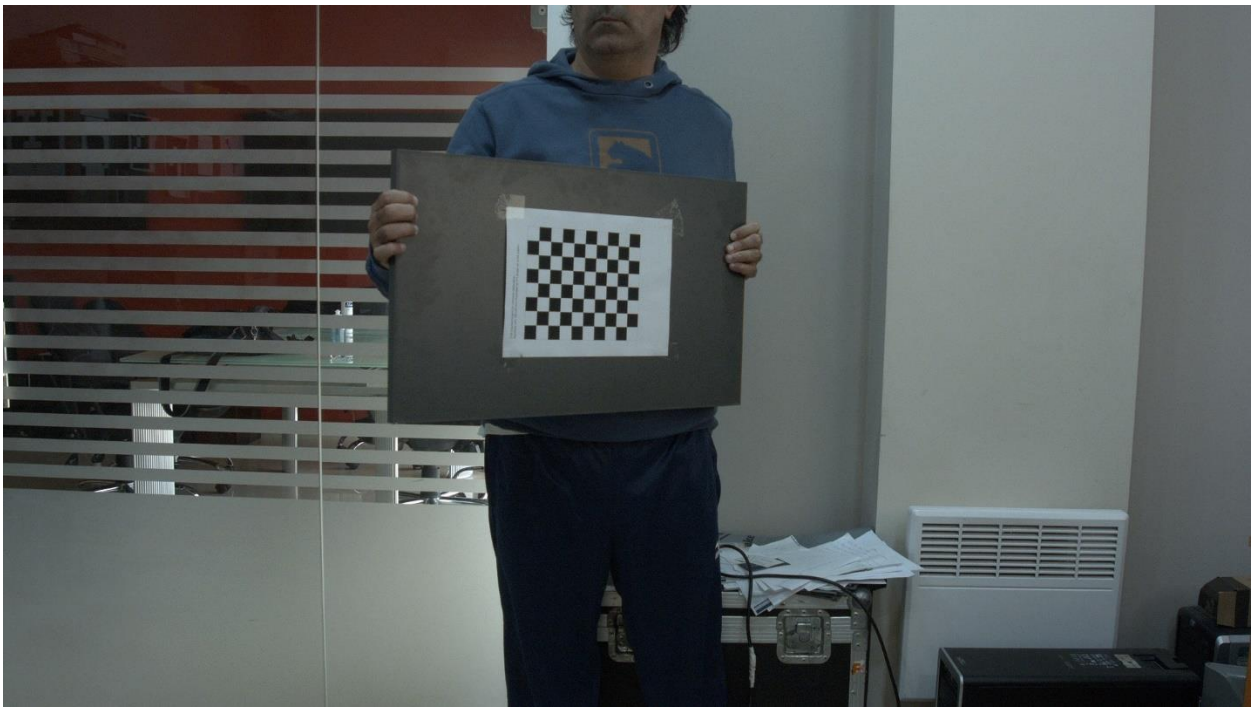
Figure 4. Tilt angle

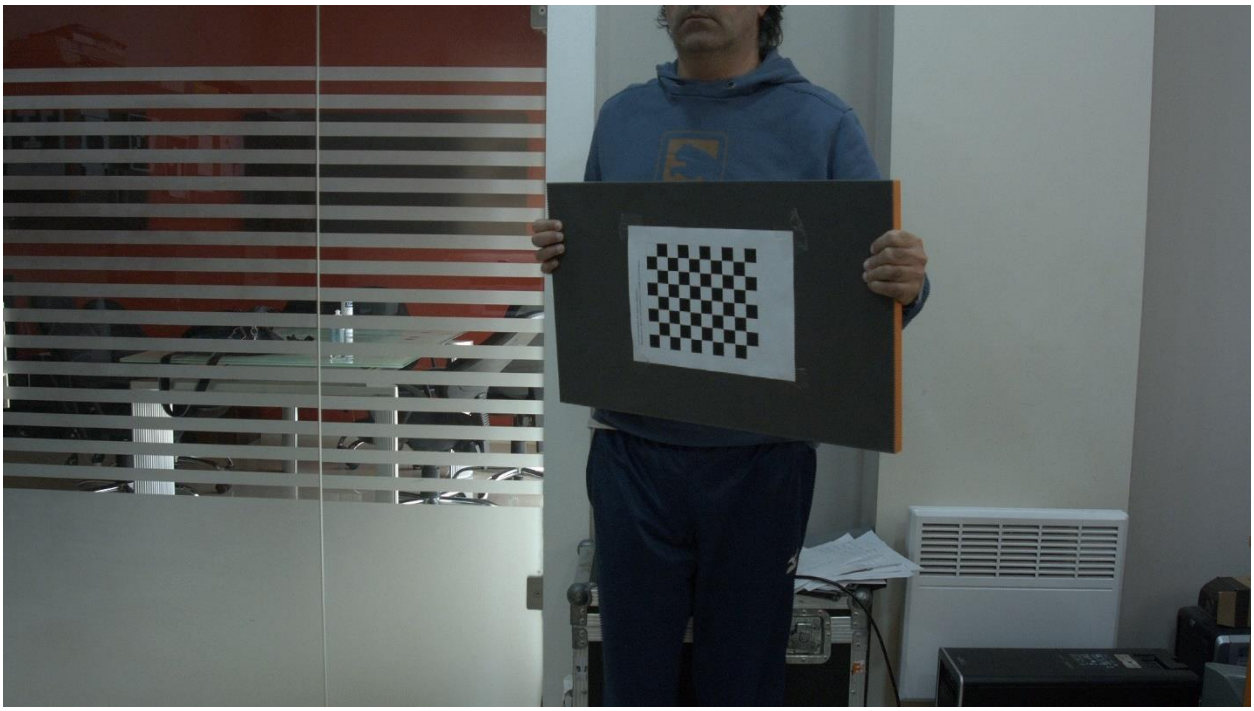
- Take photos with three camera positions

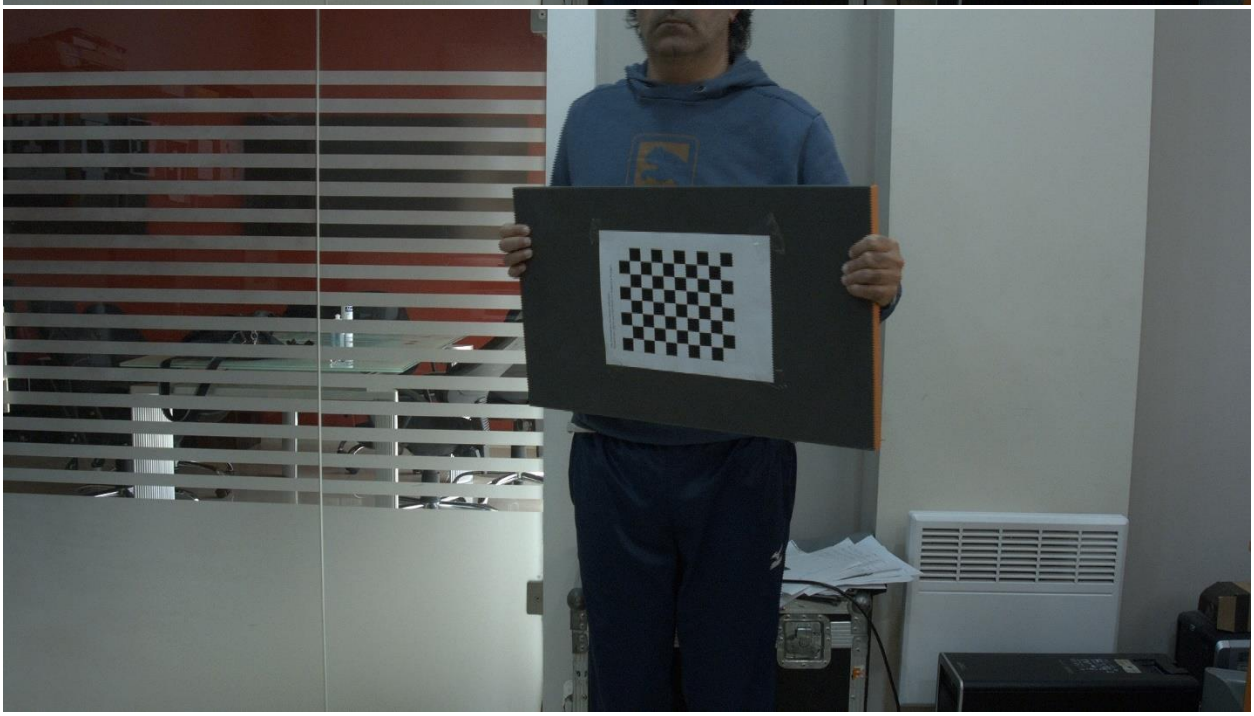


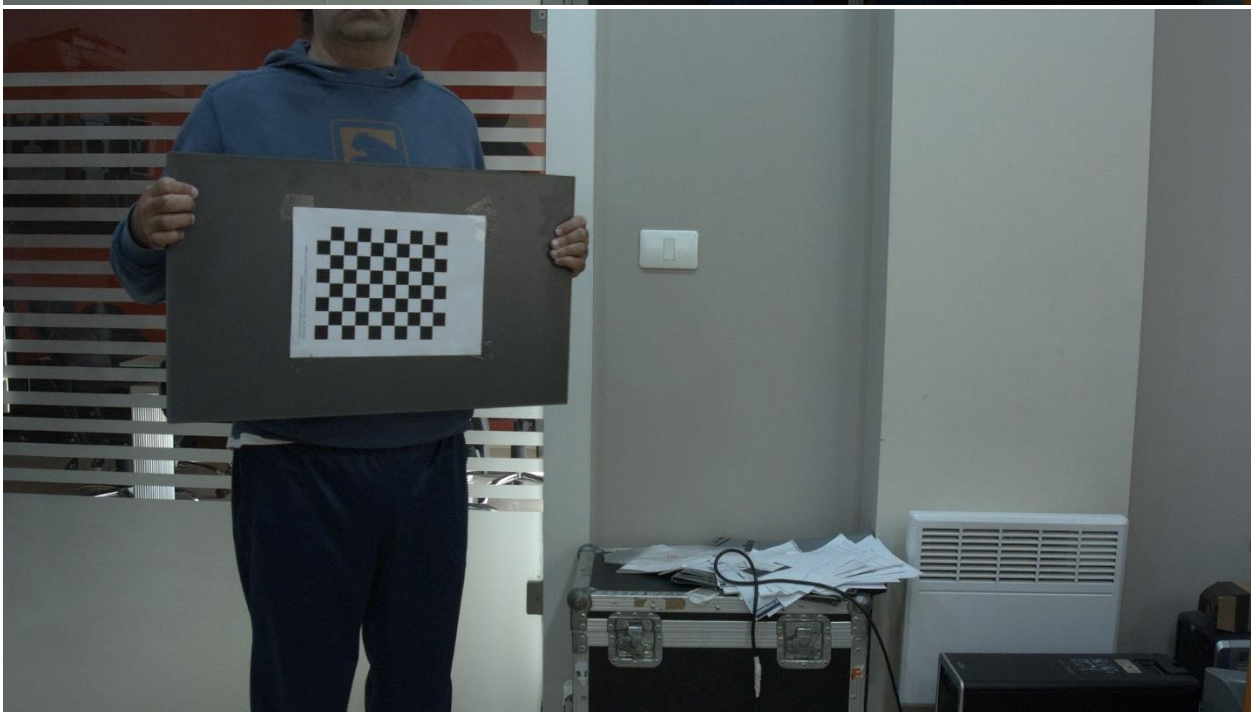


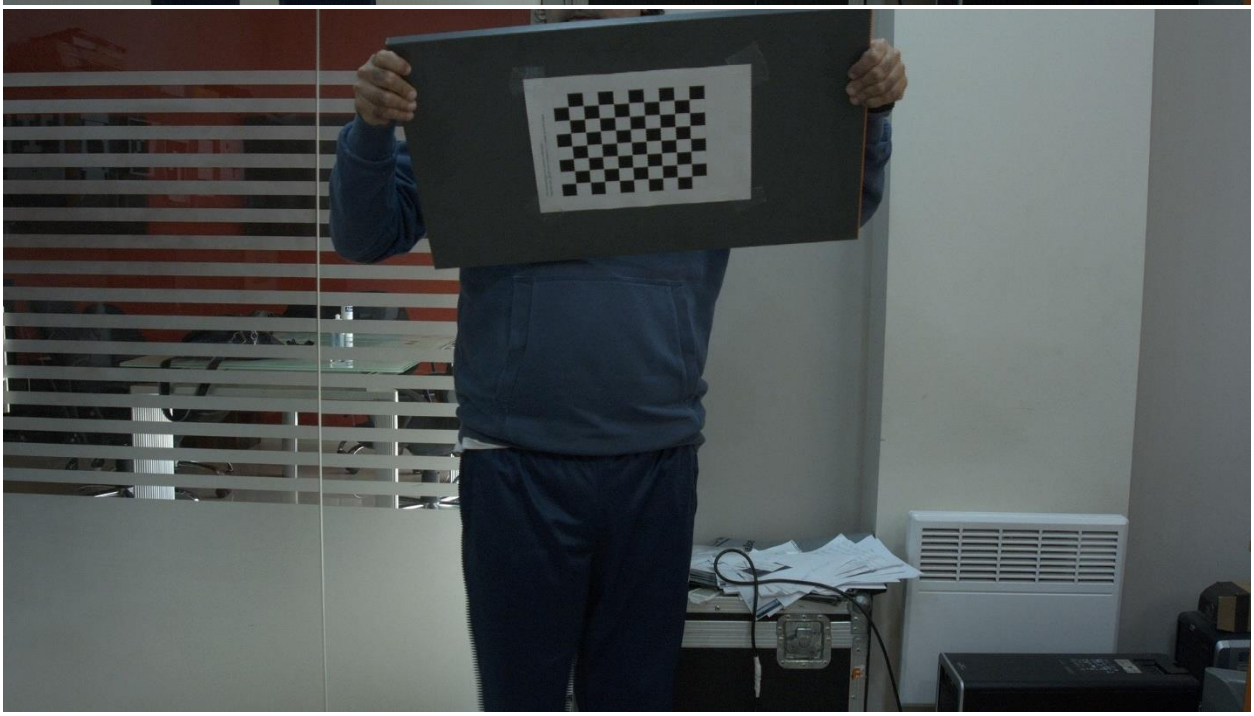


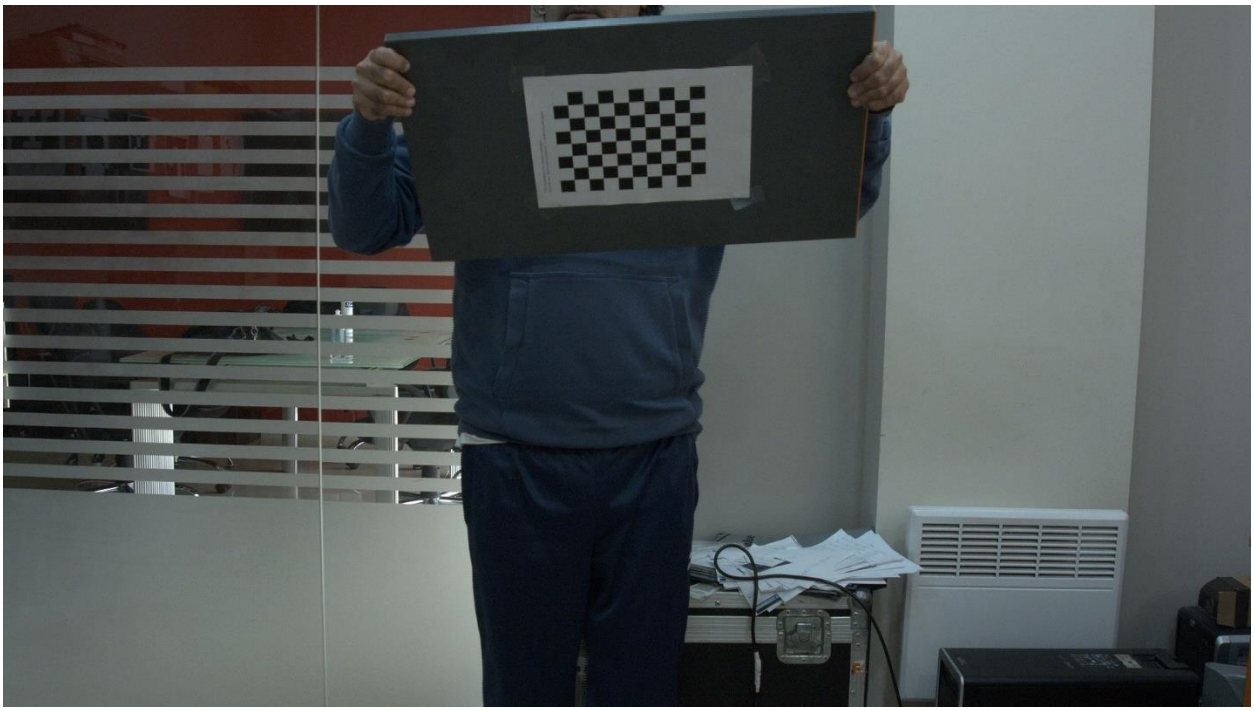


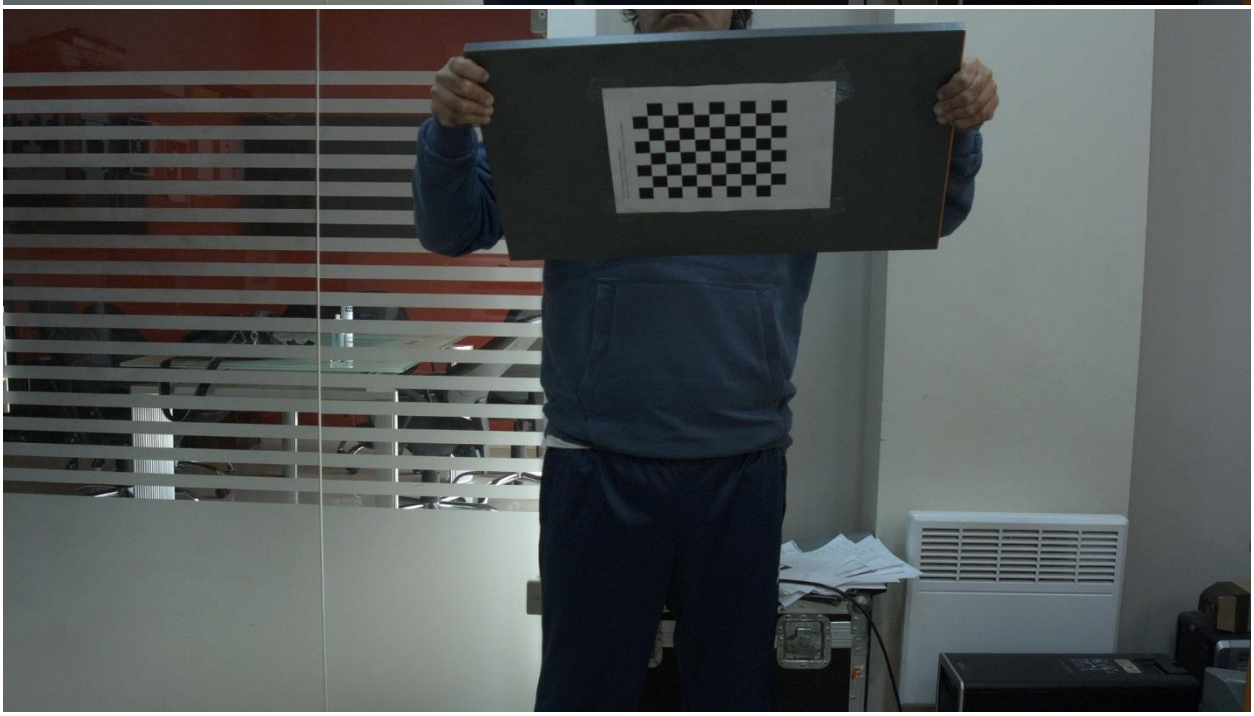


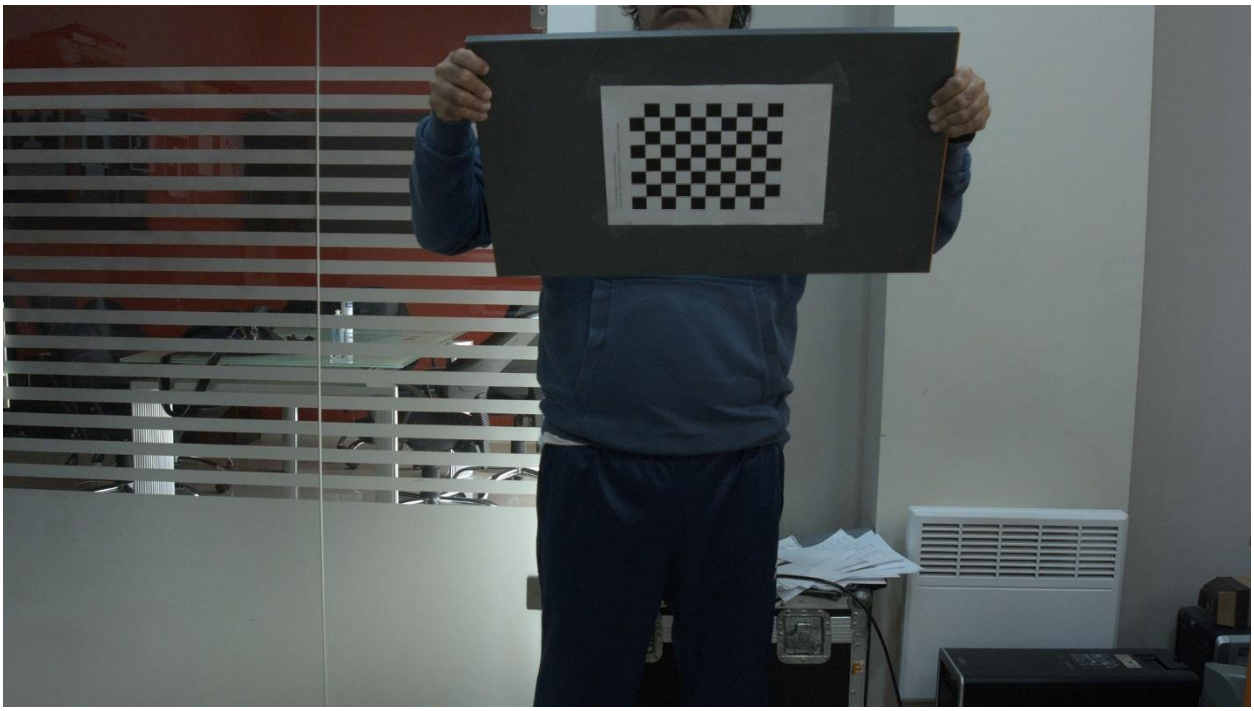


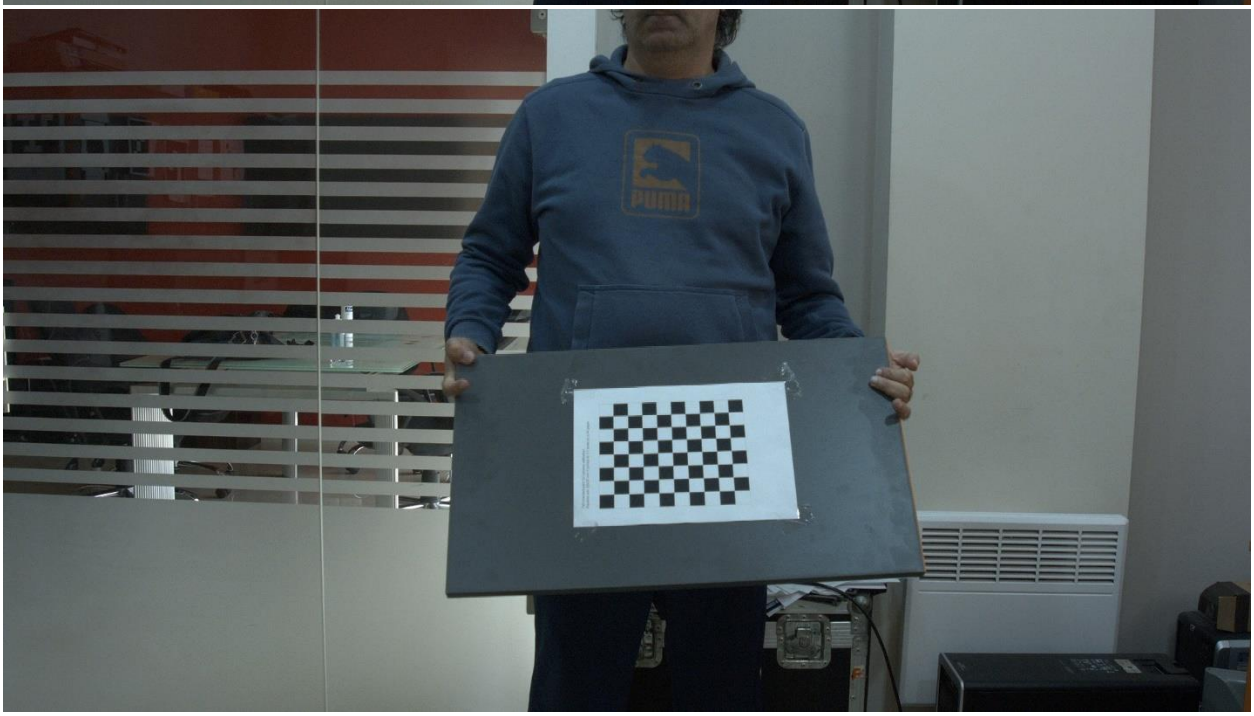








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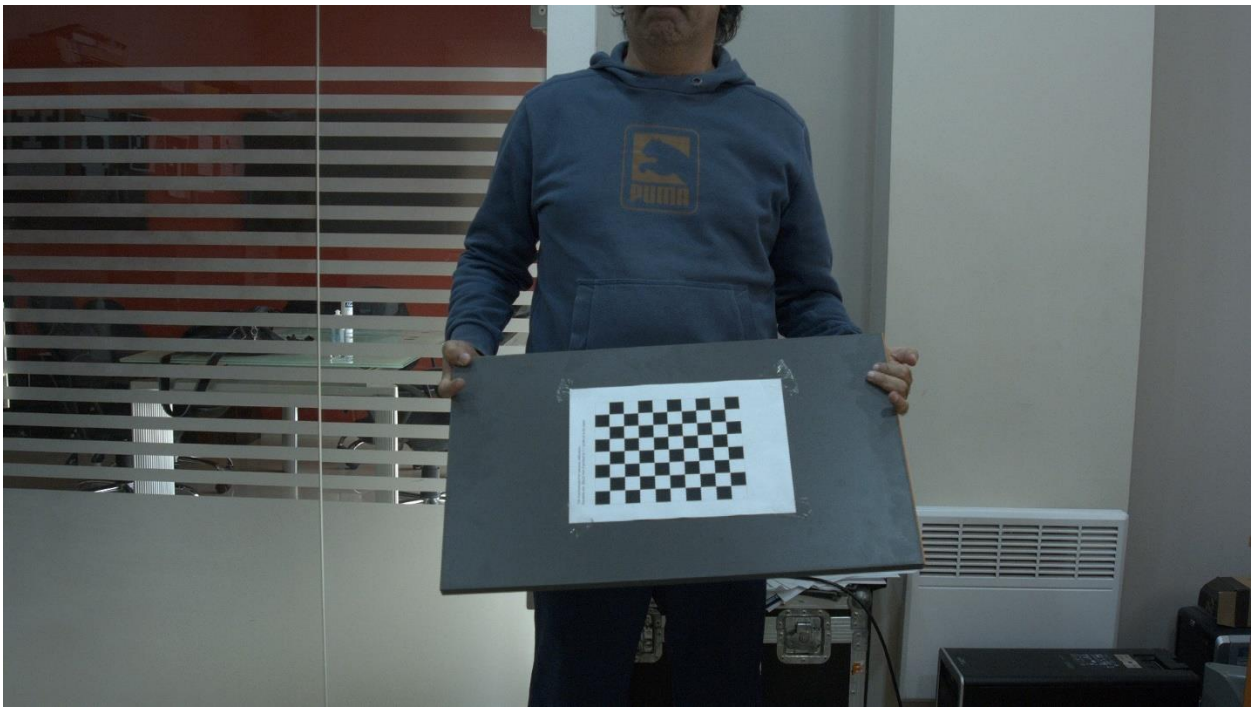
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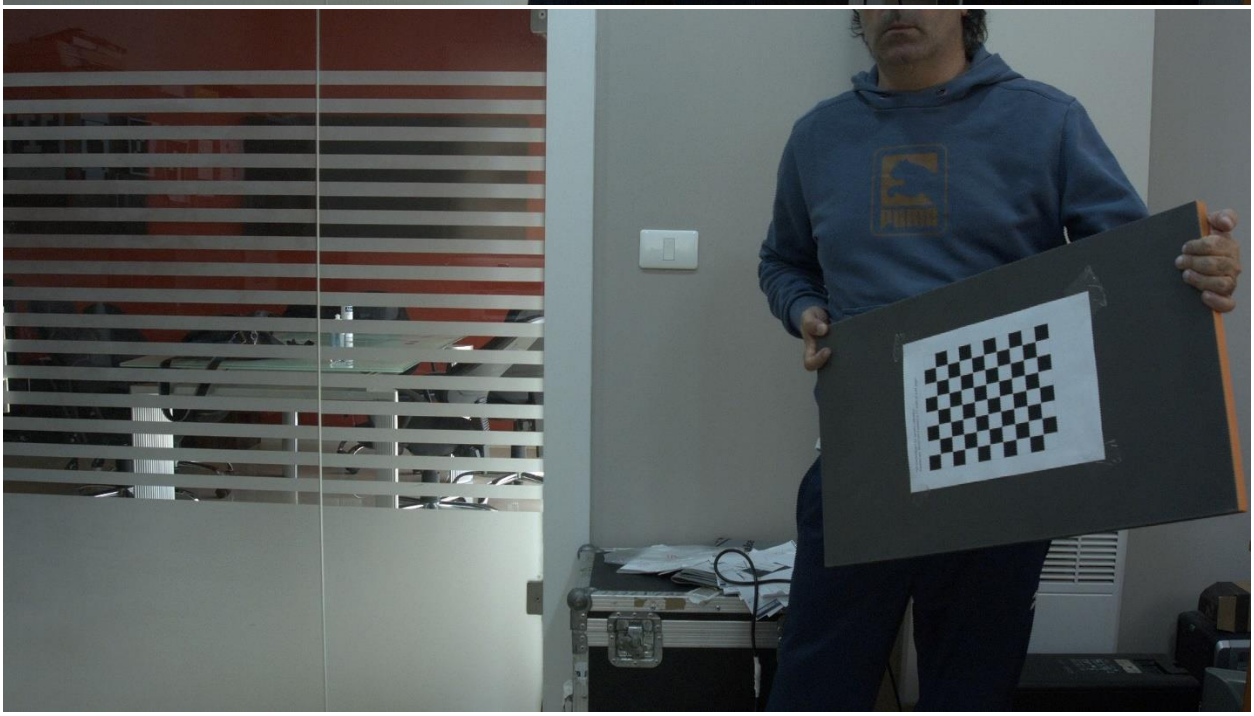
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