

Lab 4

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Part 1 Camera Calibration

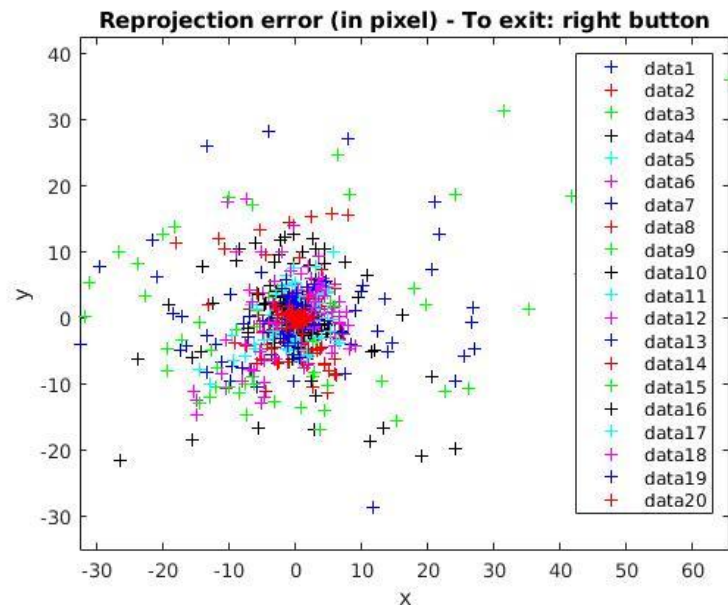
Focal Length: $fc = [3293.14319 \ 3306.32171] \pm [45.73946 \ 48.42812]$

Principal point: $cc = [1989.22764 \ 1460.06535] \pm [46.71640 \ 38.65619]$

Skew: $\alpha_c = [0.00000] \pm [0.00000] \Rightarrow$ angle of pixel axes = 90.00000 ± 0.00000 degrees

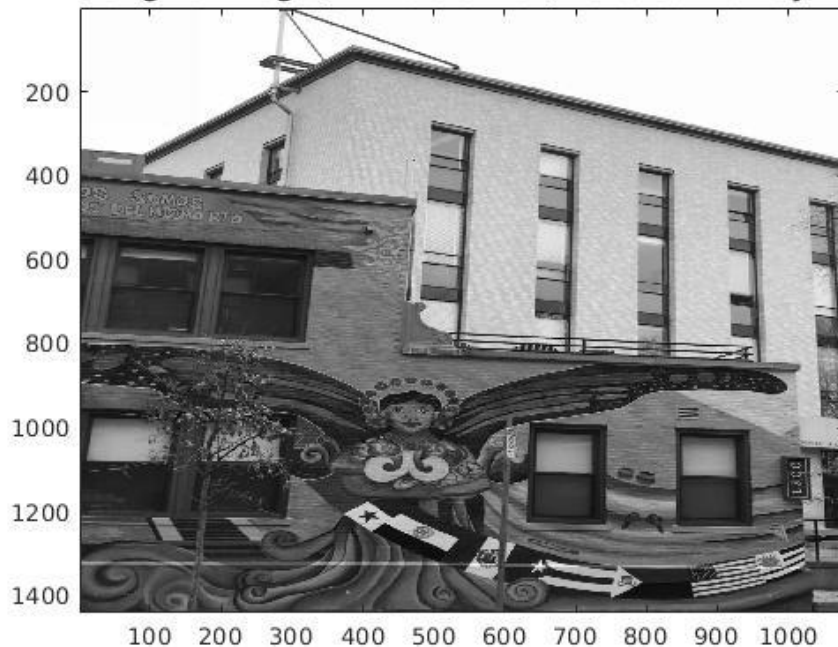
Distortion: $kc = [0.09435 \ -0.31206 \ -0.00421 \ -0.00070 \ 0.00000] \pm [0.03035 \ 0.08678 \ 0.00435 \ 0.00530 \ 0.00000]$

Pixel error: $err = [6.91207 \ 5.43861]$

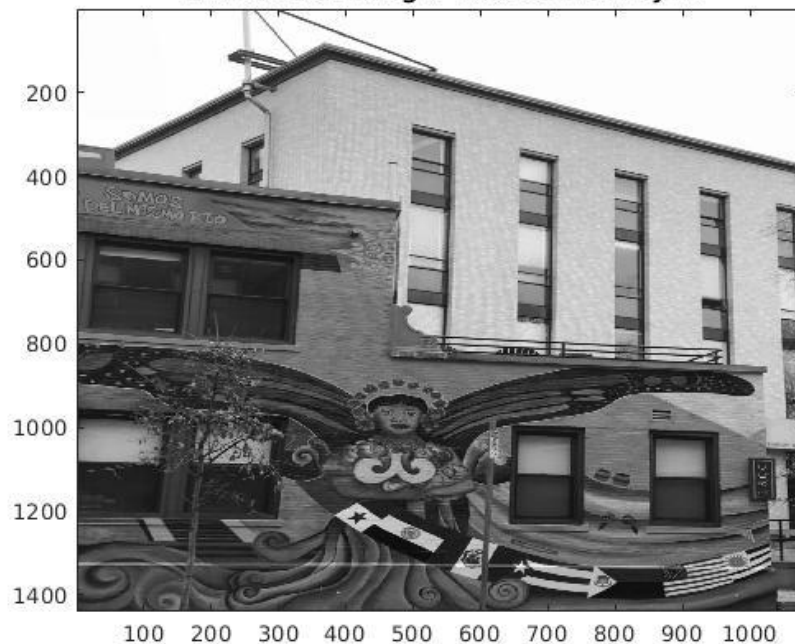


Part 2&3 Distorsion correction example

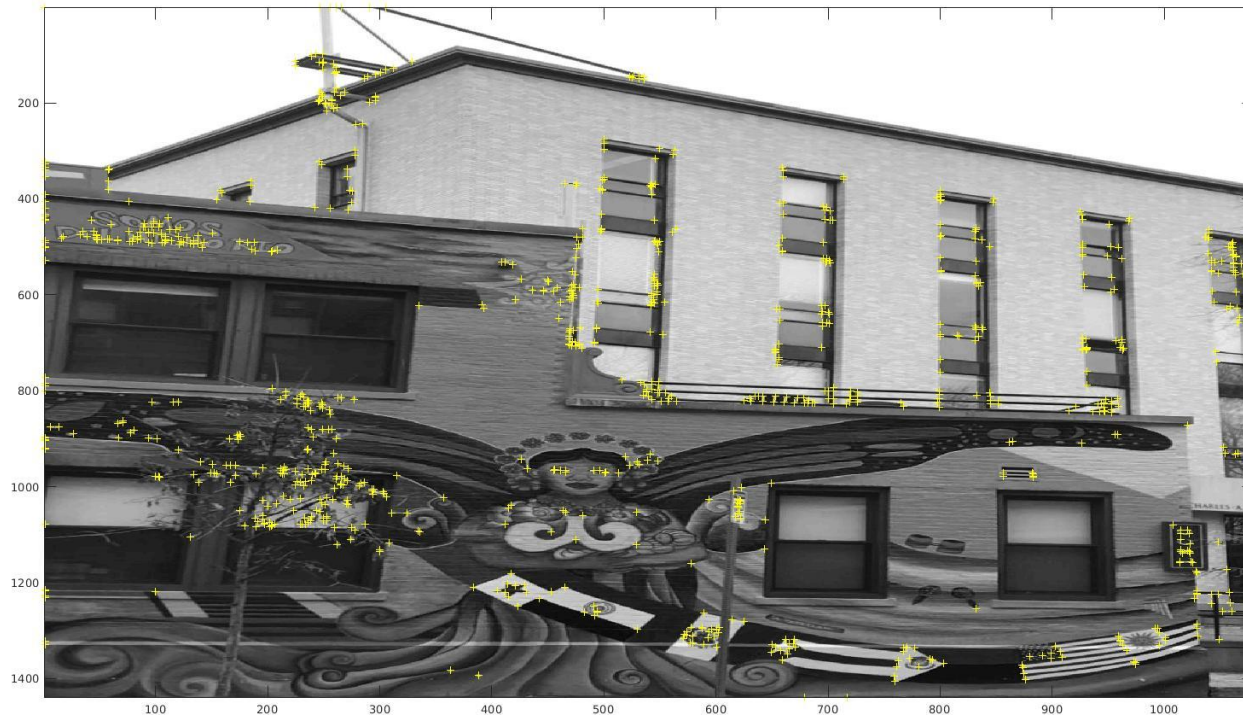
Original image (with distortion) - Stored in array I



Undistorted image - Stored in array I2



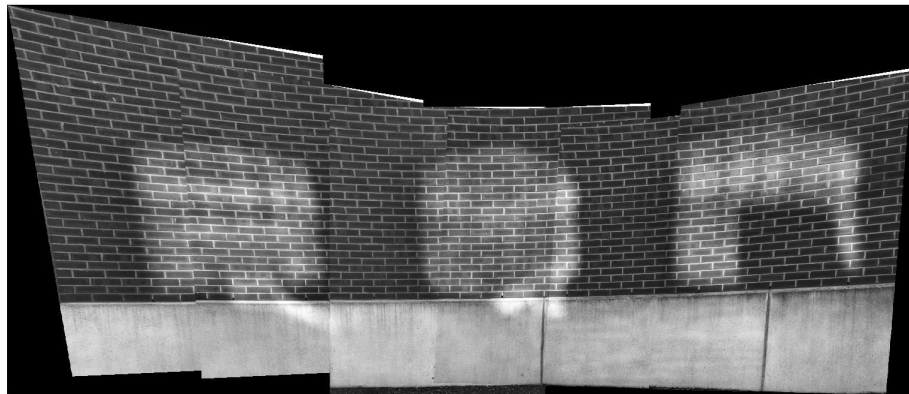
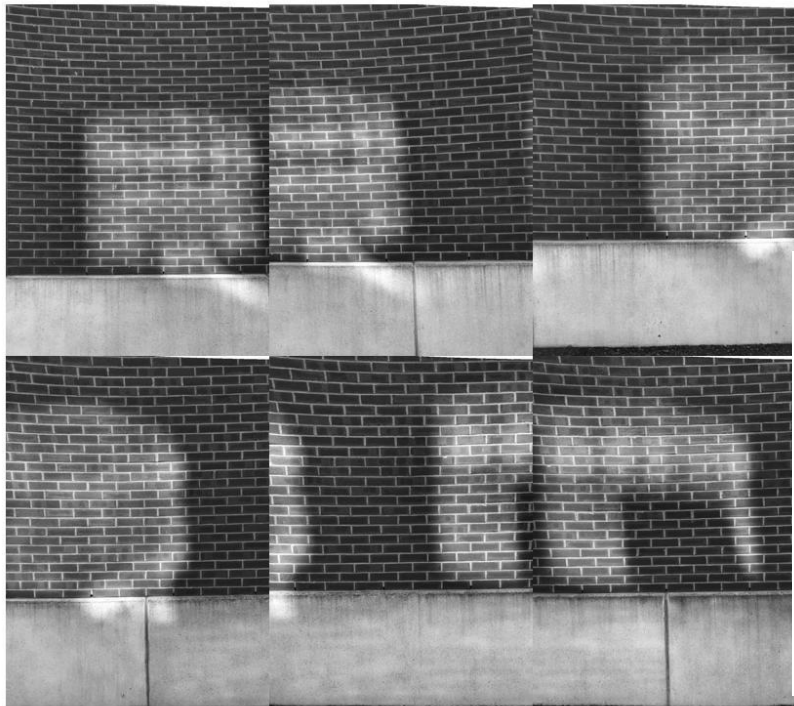
Part 4 Get features by using harris detector



Part 5 & 6 & 7



part 8 block wall



Part 9 Another graffiti with 15% overlap

