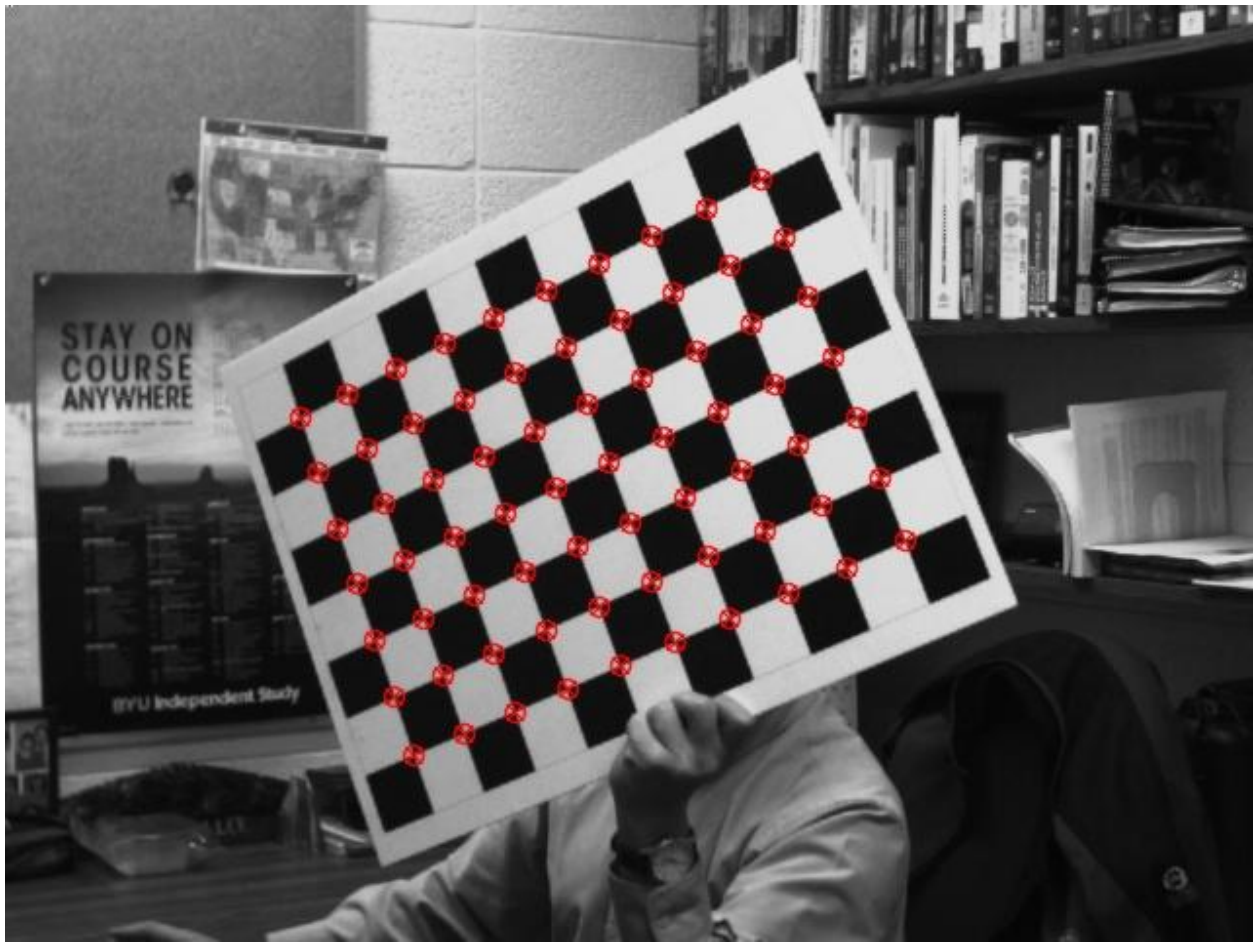# Homework 2 - Robotic Vision

Task 1

Task 2

focal_length: 8.47721355704985

camera_matrix:
[1145.56940 , 0   , 328.010352]
[0   , 1143.95445 , 222.319918]
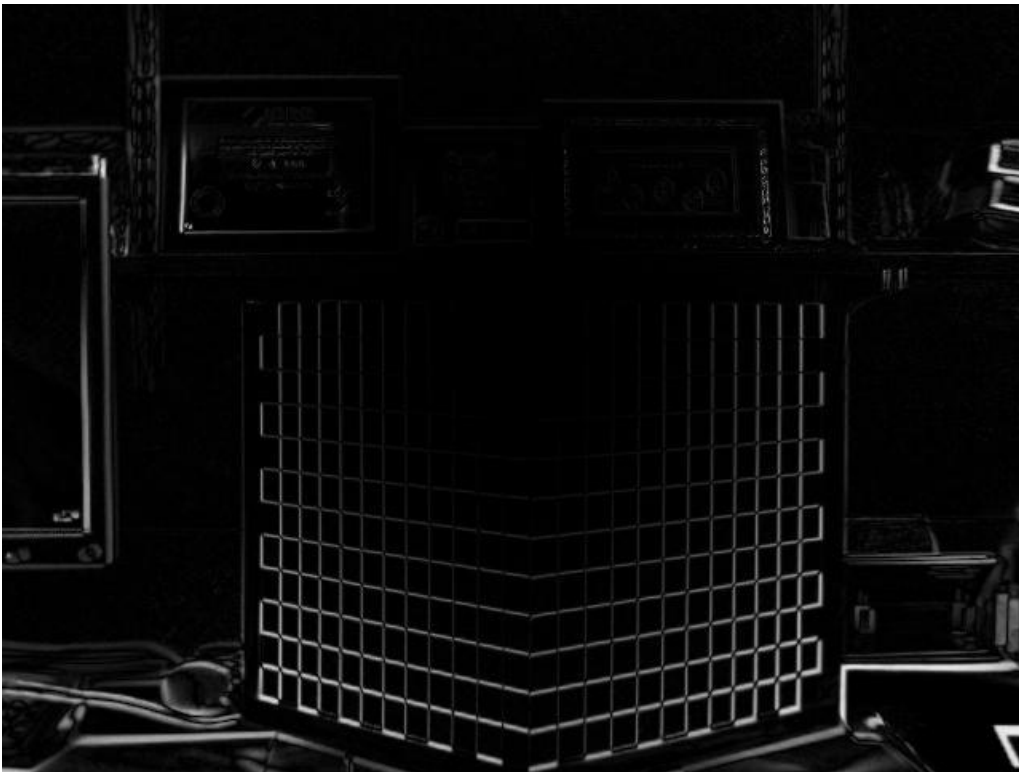[0   , 0   , 1   ]]

distortion_coeficients:
[[-0.256821803],
 [0.0150545624],
 [-0.00134300310],
 [-0.00143102803],
 [2.07373830]]

Task 3

Far

Close

Turned

Task 4
rotation_matrix:
 [[0.73598716 , -0.6768695   , 0.01306069]
 [-0.00334949   , -0.02293259 , -0.9997314]
 [0.67698721   , 0.73574573   , -0.01914526]]

translation_vector:
 [[0.0137643708]
 [10.4811752]
 [46.6994746]]

Task 5
Camera_matrix:
 [[633.97147281 , 0   , 299.78648754]
  [0   , 605.74823584 , 244.72825428]
  [0   , 0   , 1   ]]

Distortion_coeficients:
 [[-0.235387],
  [0.98882855],
  [0.00175999],
  [-0.00357608],
  [-1.5317255]]

Task 6