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EE 631 Robotic Vision
Homework #3

1)
<u>Left Camera</u>
Intrinsic Matrix:
 [1.7128606522150119e+03, 0., 3.3664241026969961e+02;
 0.,1.7153884682693133e+03, 2.4909409891247910e+02;
 0., 0., 1.]

Distortion Parameters:
[-4.8709504644159701e-01,
-6.1876088518721883e-01,
 8.5277818086723503e-04,
 -3.7220216281279745e-04,
 2.3989793486320586e+01]

<u>Right Camera</u>
Intrinsic Matrix:
[1.7145333957025846e+03, 0., 3.1501308997115461e+02;
 0., 1.7190572713511815e+03, 2.2823969508674421e+02;
 0., 0., 1.]

Distortion Parameters:
[-5.6162745342179410e-01,
 4.4759058758479302e+00,
 3.3867453497914454e-03,
 4.2346555801089231e-03,
 -8.6494651668259266e+01]

2)
R:
[0.9999475829858341, 0.0004648636740357387, 0.01022815636138548;
 -0.0005883355316523495, 0.9999269568798369, 0.01207206553705638;
 -0.01022179740019257, -0.01207745034323681, 0.9998748171901901]

T:
 [-20.27814012549608;
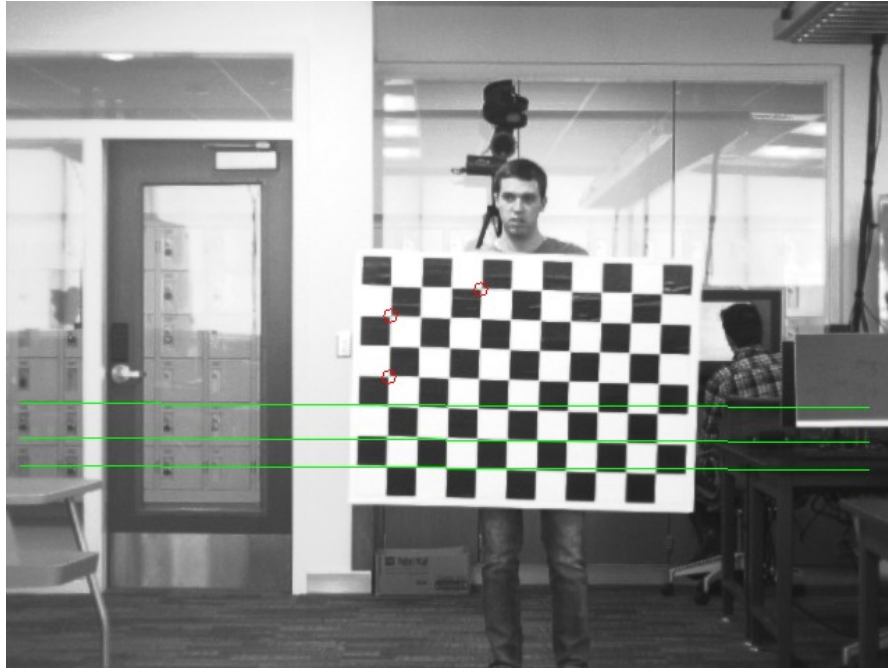 -0.09531641939941589;
 0.1185374575899418]

E:
[0.00104404492614451, -0.1173776199219917, -0.09673547937883627;
 -0.08874779580518834, -0.2448531266608307, 20.27681407058837;
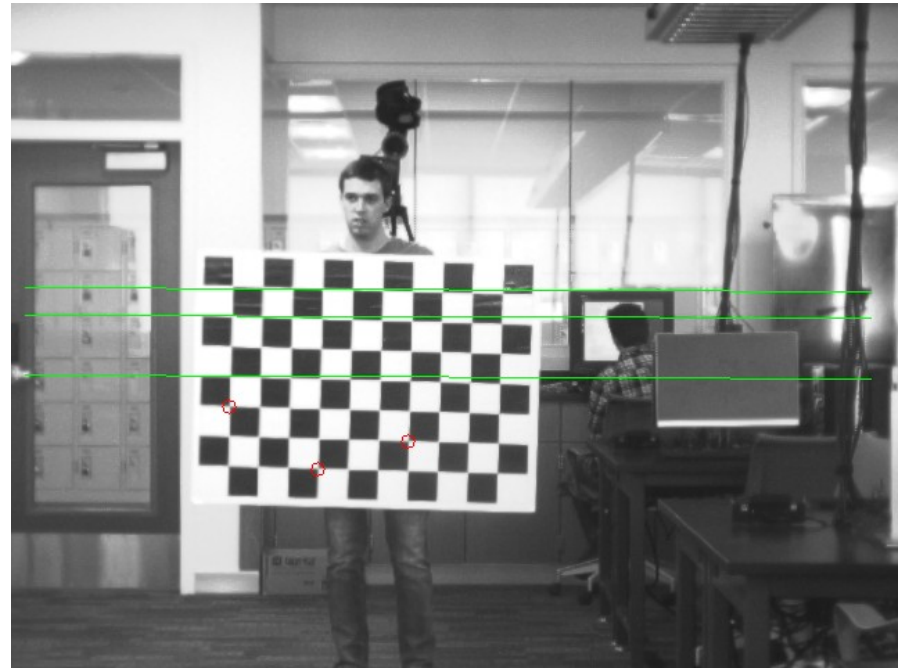 0.1072417735489646, -20.2766146377293, -0.2438241253231767]

F:
[-7.083028772179608e-08, 7.951419463935548e-06, 0.009284262492392014;
 6.004999800682551e-06, 1.654324199555886e-05, -2.356192746622715;
 -0.01382238219159127, 2.348772788123543, 1]

3)
Left Image with Epilines: Right Camera with Epilines:

4)
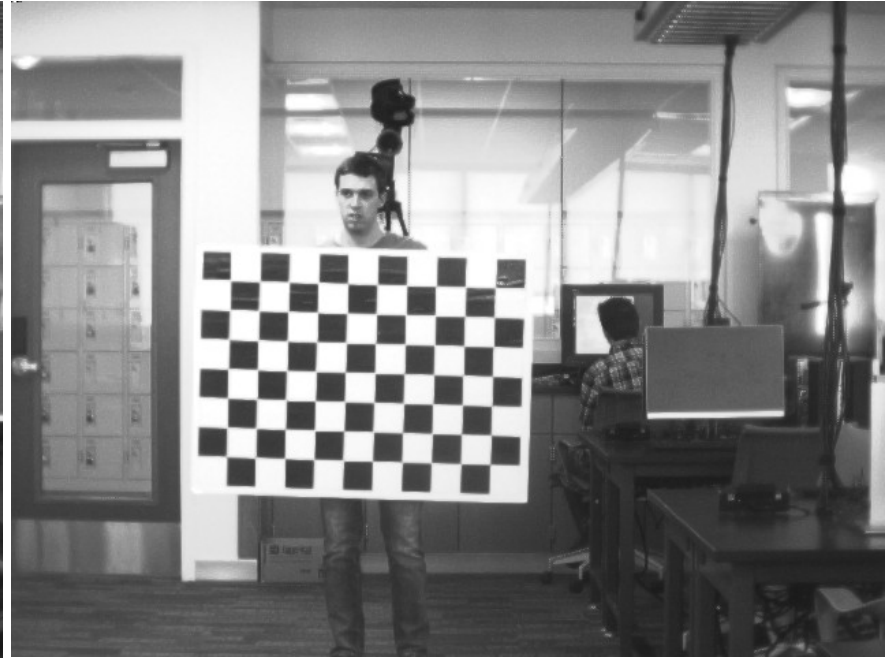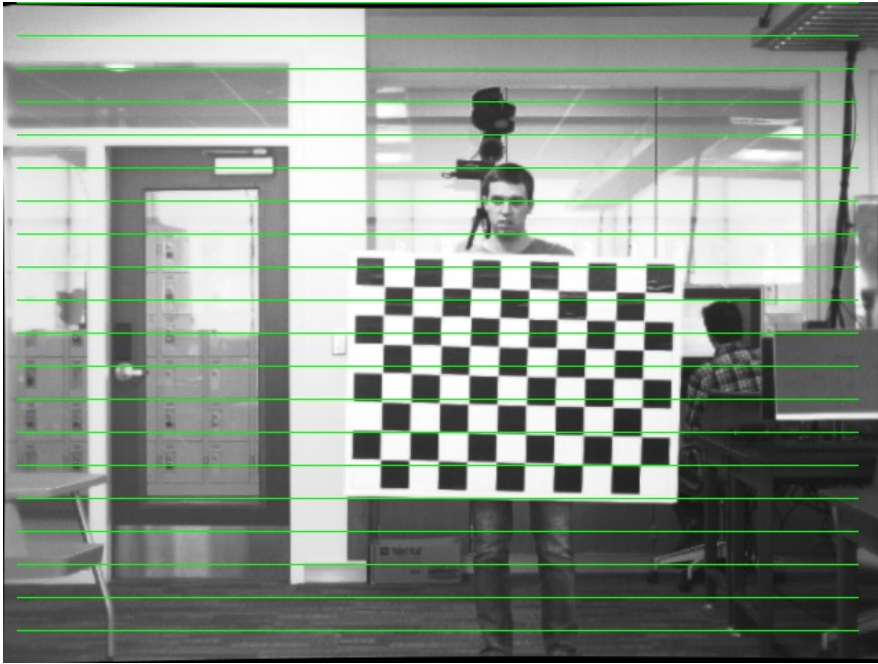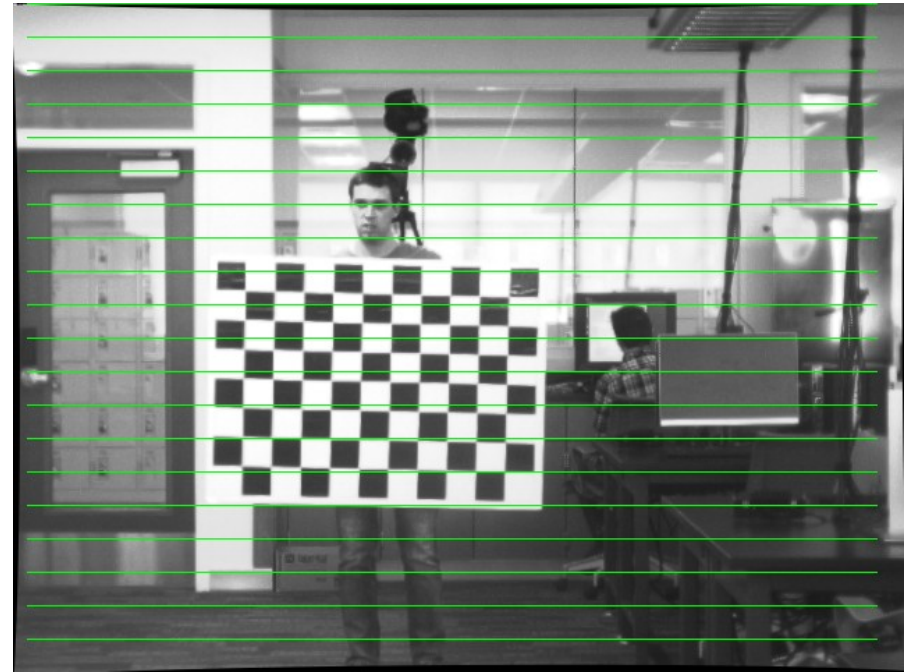Left Original: Right Original:

Left Rectified with lines:

Right Rectified with lines:

Left Absolute Diff:

Right Absolute Diff: