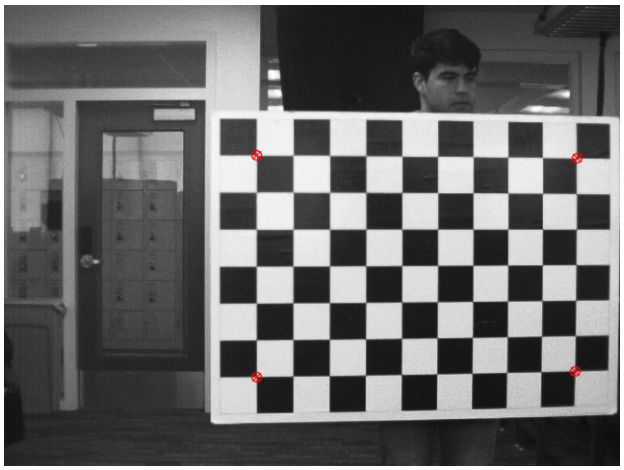
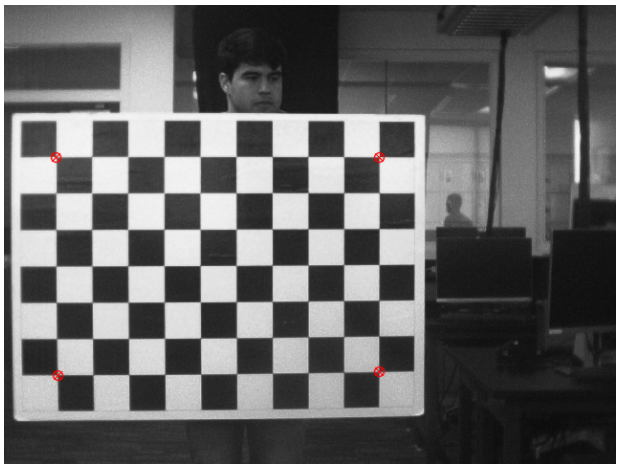
Homework 4

3D Reconstruction and Trajectory Estimation

Task 1

Left_frame_3d_points:

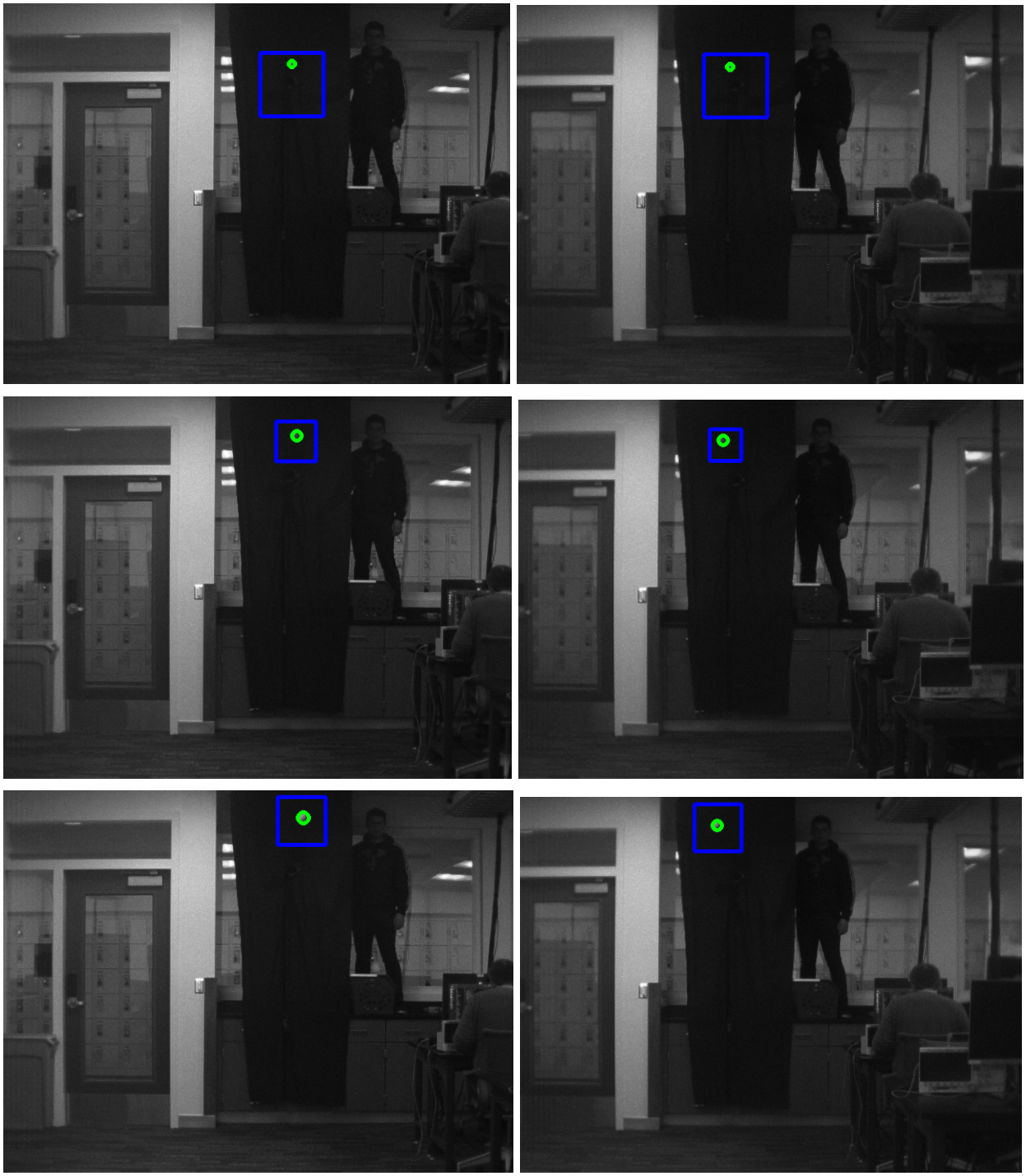
```
[[ -2.173519   , -9.275814   ,  171.61868  ]
[   32.54033   , -9.433923   ,  175.16077  ]
[  -2.1222794  ,  14.016801 ,  172.22374  ]
[   32.568867  ,  13.82157   ,  175.63872  ]]
```

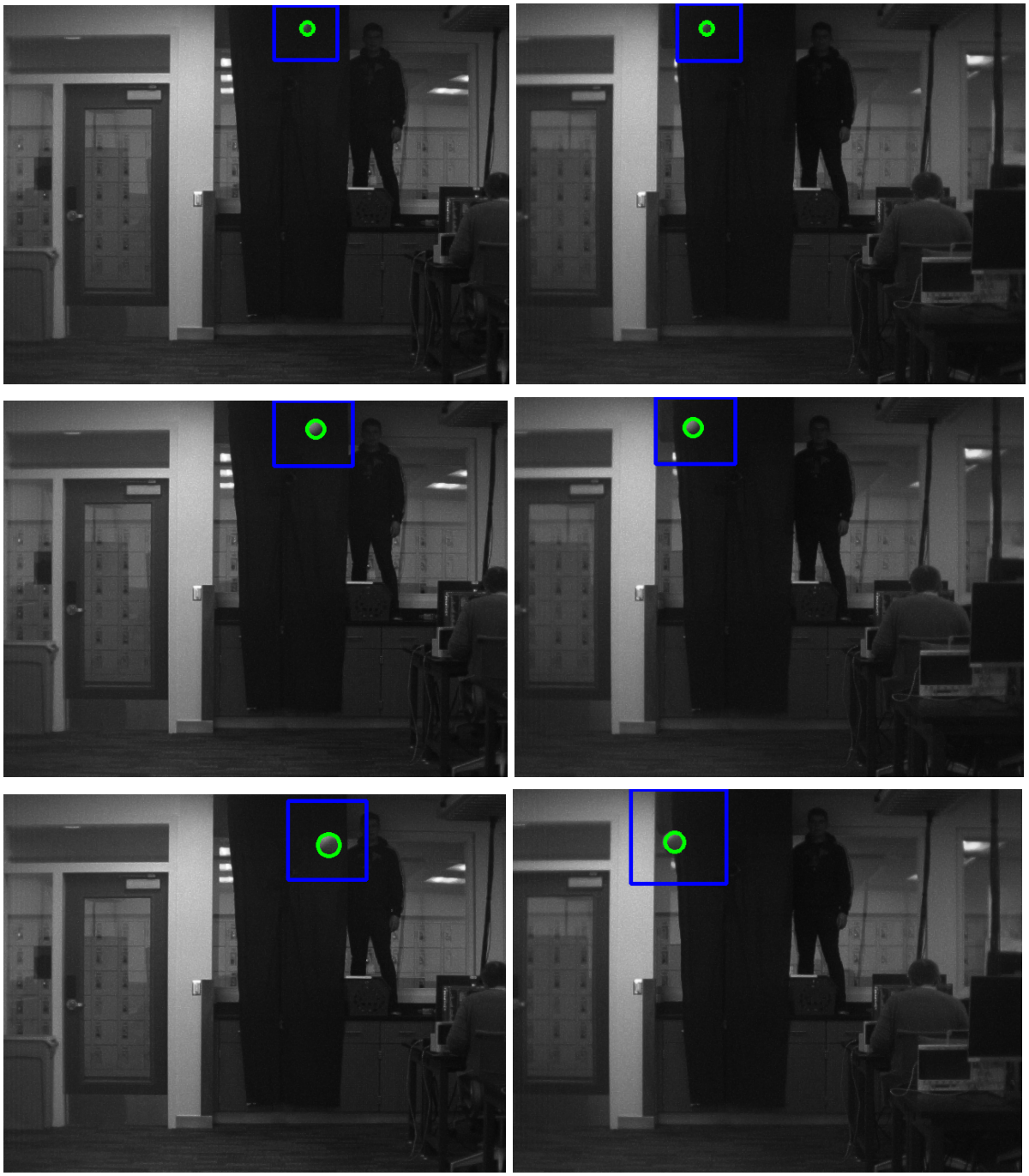
right_frame_3d_points:

```
[[-22.52054   , -9.270955  , 171.61868 ]
 [ 12.193308 , -9.461161  , 175.16077 ]
 [-22.4693    , 14.00596   , 172.22374 ]
 [ 12.221845 , 13.80736   , 175.63872 ]]
```

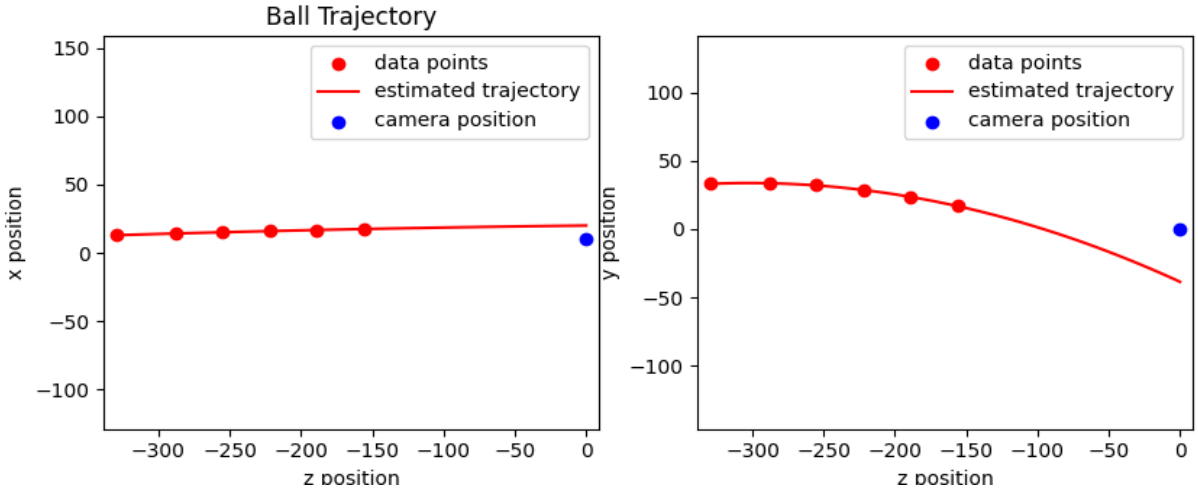
Points seem right as they are shifted about 20 inches in the x direction from eachother.

Task 2





Task 3



X y

[20.02840972 -38.51755979]

I used a polynomial fit of second order to estimate the trajectory of the ball.