1.a.

- The matrix M you recovered from the normalized points (3x4) [text response]

Text, letter

Description automatically generated

The < u, v > projection of the first and last points given your M matrix [text response]

Chart, radar chart

Description automatically generated

- The residual between that projected locations and the actual ones given [text response]

A picture containing application

Description automatically generated

1.b.

Average residual for each trial of each k (10x3) [text response]

Table

Description automatically generated

Explain any difference you see between the results for the different k’s [text response]

From the residual results we could tell that the more points we use to estimate the projection matrix the more accurate overall result we will have. The first column is from using 8 points, 2nd column is from using 12 points and the third from using 16 points.

The best M matrix (3x4) [text response]

Table

Description automatically generated

This is the best projection matrix (obtained from using 16 points) that results in the lowest residual (0.4961)

1.c.

The location of the camera in real 3D world coordinates [text response]

Text

Description automatically generated

2.a.

The matrix 𝐹 generated from your least squares function [text response]

A picture containing table

Description automatically generated

2.b.

Table

Description automatically generated

2.c. ps3-2-c-1

A large room

Description automatically generated­­­

ps3-2-c-2

A picture containing indoor, kitchen, refrigerator, table

Description automatically generated