**Assignment 1**

Solution 2:

I = imread('calc.jpg'); % Read the image

imshow(I); % Display the image

[x y] = ginput(2);

fx = 10556.1840280303;

fy = 10561.2759823954;

z = 710;

x1 = z\*(x(1)/fx);

x2 = z\*(x(2)/fx);

y1 = z\*(y(1)/fy);

y2 = z\*(y(2)/fy);

diag = sqrt((x2-x1)^2 +(y2-y1)^2);

disp(diag);

(Diagonal length of the blue book in the image below)

Result: A picture containing graphical user interface

Description automatically generated

A box on a table

Description automatically generated with low confidence

Solution 1:

Text

Description automatically generated with medium confidence

Text

Description automatically generated with medium confidence

**Solving for projection matrix:**

Table

Description automatically generated with low confidence

Table

Description automatically generated

Table

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Text

Description automatically generated with low confidence

Graphical user interface, text, application

Description automatically generatedGraphical user interface, text, application, email

Description automatically generated

Table

Description automatically generated

Table

Description automatically generated

Table

Description automatically generated

Solution 2:

Text

Description automatically generated with low confidence

**Computing Transpose and then At.A**

Table

Description automatically generated with medium confidence

Text

Description automatically generated

Text

Description automatically generated with medium confidence

Table

Description automatically generated

Solution 5:

RGB Stream with Frame Rate and Resolution.

A picture containing floor, indoor, wall, chair

Description automatically generated

RGB and Stereo Depth simultaneously.

(Depth only)

A screenshot of a computer

Description automatically generated with medium confidence

(Combined)

A screenshot of a computer

Description automatically generated with medium confidence