Assignment 2

Epipolar constraints practice

This is a practice how the epipolar constraint work in real situation.

You need to prepare two images captured by two cameras and take photos of some scene using these cameras. You should complete the following tasks. You have to take pictures of the images by real cameras.

[1] From these two images, you can take one point of some object and try to find the epipolar line to find the candidates of exact correspondence. You can check the true correspondence is always on the epipolar line that was already found by solving the epipolar constraint constraint equation.

Also it is asked for you to try to find other points along with the different epipolar lines.

[2] Through this practice you can be more familiar with binocular vision system and how to find the correspondence, which gives the clue for the 3D location of the object. This should be also verified by measuring the 3D information in this assignment.

The internal and external parameters of the cameras need to be identified before building the epipolar constraint.