Computer Vision

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Lesson 3   Exercises
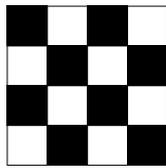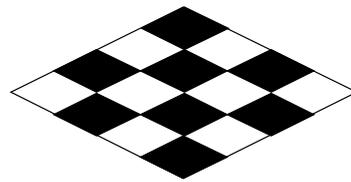
Edge Detection, Hough Transforms

Image S: Calibration Pattern

The image I: Image as seen from
Camera

A checkerboard pattern can be used as a calibration grid for estimating a homography.

1) Explain how to use the Sobel edge detector and the Hough Transform to determine the image positions of the corners of the squares of the calibration pattern (S), as seen from the camera (I).

2) Explain how to calculate the homography from S to I given the position of all of the corners from the image I.