EN2550 Exercise 6 Hough Transforms and Alignment

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Hough Transforms

1. Fit Houghlines to the Soduko image in Fing. 1.

Figure 1: Image for Houghlines

2. Fit Hough circles to the coins image in Fing. 3.

Figure 2: Images for Hough circles.

3. Use generalized Hough transform to match the template with the image.

Alignment

4. Using he given code (item no. 1), experiment with various types of 2-D transformations.

5. Transform Graffiti img1.ppm onto img5.ppm using code in item no. 2.

6. Item no. 3 is for mouse clicking and selecting matching points in the two images to be stitched. Compute the homography using the relevant OpenCV function and carry out stitching.
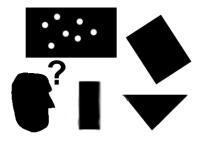
Figure 3: Images for generalized Hough transforms.

7. Item no. 4 is similar to item no. 3. Here, compute the homography using your own code and stitch the two images