

# Harris Corner Detector: Autocorrelation and Corner score

Image features such as Harris Corners can serve as a compact image representation useful for task such as image matching, computing image statistics, 3D model estimation and video tracking. In this lab you will build a Harris Corner Detector via the implementation sketch in video Robo\_2\_4.Otherfeatures\_pt2\_v1\_Good.mp4.

In the last section you wrote a function to compute image gradients. In this section you will use your previous solution to determine the corner score at each pixel location using the eigenvalues of the autocorrelation matrix. The next and final section will require you to perform non-maximum suppression and thresholding to isolate the image locations with the strongest corner scores.

## Your Script

 Save  Reset  MATLAB Documentation (<https://www.mathworks.com/help/>)

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52 img = imread('peppers.png');  
53 img_gray = im2double(rgb2gray(img));  
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55 img_gray_smooth = gauss_blur(img_gray);  
56 [I_x,I_y] = grad2d(img_gray_smooth);  
57
```

[▶ Run Script](#)

## Previous Assessment: All Tests Passed

[Submit](#)

✓ Is the I<sub>xx</sub> solution correct?

✓ Is the I<sub>xy</sub> solution correct?

✓ Is the I<sub>yy</sub> solution correct?

✓ Is the R solution correct?

## Output

Code ran without output.