

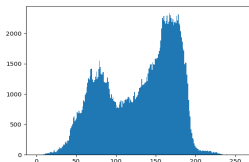







# BÁO CÁO XỬ LÝ HÌNH

| TT | Code                                                                                                                                                                                                                                     | Hình ảnh kết quả                                                                     |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1a | <pre>img_color = cv2.imread('/content/sample_image.jpg') img_color = cv2.cvtColor(img_color, cv2.COLOR_BGR2RGB)</pre>                                                                                                                    |    |
| 1b | <pre>img_gray = cv2.cvtColor(img_color, cv2.COLOR_RGB2GRAY)</pre>                                                                                                                                                                        |    |
| 2  | <pre>plt.hist(img_gray.ravel(), 256, [0,256])</pre>                                                                                                                                                                                      |    |
| 3  | <pre>_, img_binary = cv2.threshold(img_gray, 127, 255, cv2.THRESH_BINARY)</pre>                                                                                                                                                          |  |
| 4  | <pre>edges_canny = cv2.Canny(img_gray, 100, 200)</pre>                                                                                                                                                                                   |  |
| 5  | <pre>sobelx = cv2.Sobel(img_gray, cv2.CV_64F, 1, 0, ksize=3) sobely = cv2.Sobel(img_gray, cv2.CV_64F, 0, 1, ksize=3) sobel = cv2.magnitude(sobelx, sobely)</pre>                                                                         |  |
| 6  | <pre>kernelx = np.array([[1,0,-1],[1,0,-1],[1,0,-1]]) kernely = np.array([[1,1,1],[0,0,0],[-1,-1,-1]]) prewittx = cv2.filter2D(img_gray, -1, kernelx) prewitty = cv2.filter2D(img_gray, -1, kernely) prewitt = prewittx + prewitty</pre> |  |

|   |                                                                                                                                        |                                                                                    |
|---|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 7 | <pre>kernel = cv2.getStructuringElement<br/>(cv2.MORPH_RECT,(5,5)) erosion =<br/>cv2.erode(img_binary, kernel,<br/>iterations=1)</pre> |  |
|---|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|