Edge Detection Report

Made By:

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1. Sobel:

|  |  |  |
| --- | --- | --- |
| -1 | 0 | 1 |
| -2 | 0 | 2 |
| -1 | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| -1 | -2 | -1 |
| 0 | 0 | 0 |
| 1 | 2 | 1 |

You first get the soble\_x and sobel\_y by applying a kernel for each one, sobel\_x’s kernel is while the sobel\_y is

Then you add both sobel\_x and sobel\_y by using bitwise or to get the final image.

1. canny:

First you apply gaussian blur to the image then apply the canny using the lower and upper threshold .

1. laplacian:

|  |  |  |
| --- | --- | --- |
| 0 | 1 | 0 |
| 1 | -4 | 1 |
| 0 | 1 | 0 |

you apply the following kernel to the picture ,but it is prone to noise

conclusion:

The canny and Laplacian have the nearly the same quality and accuracy but since the Laplacian is prone to noise so the canny is better, al last the sobel have the worst accuracy of the three.