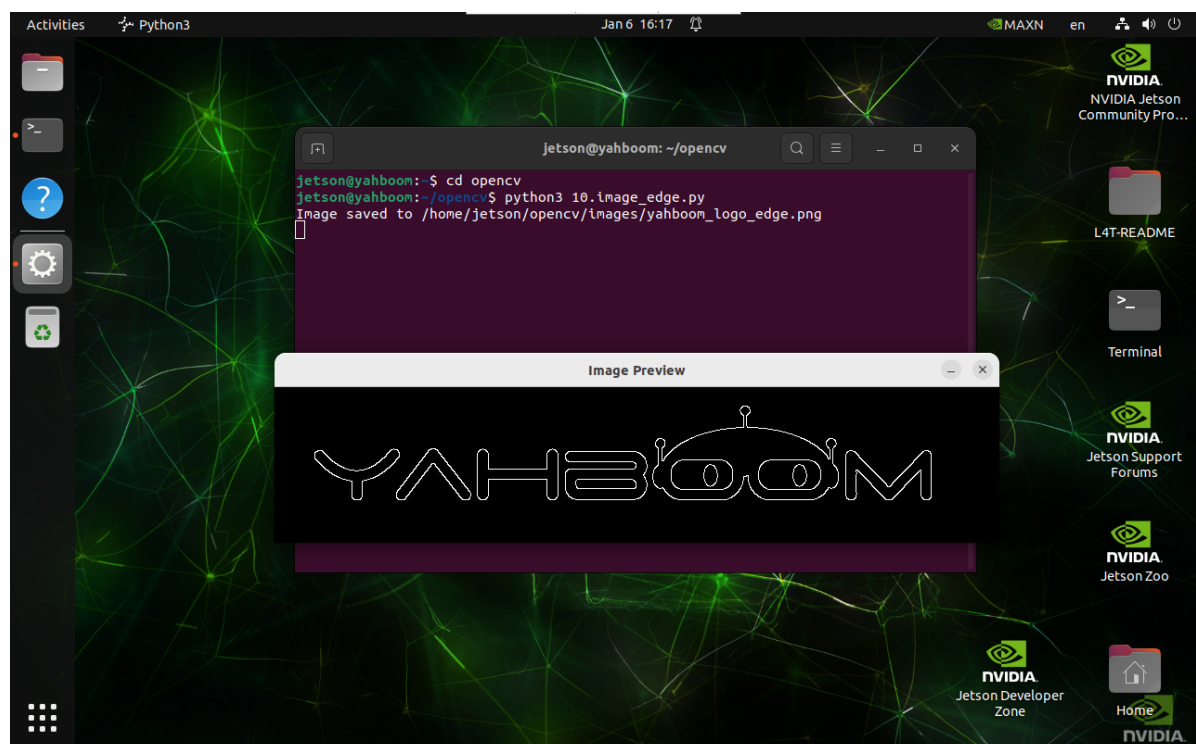# Image edge detection

1. Implementation principle

Use `cv2.Canny()` function to detect the edge of the image.

2. Implementation effect

```
cd ~/opencv
```

```
python3 10.image_edge.py
```

Note: Select the image and press `q` to exit the program!

3. Implementation code

```python
import cv2

def edge_detection(input_path, output_path, threshold1, threshold2):
    image = cv2.imread(input_path, cv2.IMREAD_GRAYSCALE)
    if image is None:
        print("Error: Unable to open image file.")
        return
    edges = cv2.Canny(image, threshold1, threshold2)
```

```python
    if cv2.imwrite(output_path, edges):
        print(f"Image saved to {output_path}")
        cv2.imshow('Image Preview', cv2.imread(output_path))
        cv2.waitKey(0)
        cv2.destroyAllWindows()
    else:
        print("Error: Unable to save image file.")

edge_detection('/home/jetson/opencv/images/yahboom_logo.png', \
                '/home/jetson/opencv/images/yahboom_logo_edge.png', \
                100, 200)
```