import cv2

from matplotlib import pyplot as plt

# Step 1: Read the image

image = cv2.imread('3.png')

# Step 2: Check if the image is loaded

if image is None:

print("Error: Image not found or couldn't be loaded.")

else:

# Step 3: Convert to grayscale

gray = cv2.cvtColor(image, cv2.COLOR\_BGR2GRAY)

# Step 4: Apply Canny edge detection

edges = cv2.Canny(gray, threshold1=100, threshold2=200)

# Step 5: Display original and edge-detected images

plt.figure(figsize=(10, 5))

plt.subplot(1, 2, 1)

plt.title('Original Image')

plt.imshow(cv2.cvtColor(image, cv2.COLOR\_BGR2RGB))

plt.axis('off')

plt.subplot(1, 2, 2)

plt.title('Edge Detection (Canny)')

plt.imshow(edges, cmap='gray')

plt.axis('off')

plt.tight\_layout()

plt.show()

output: