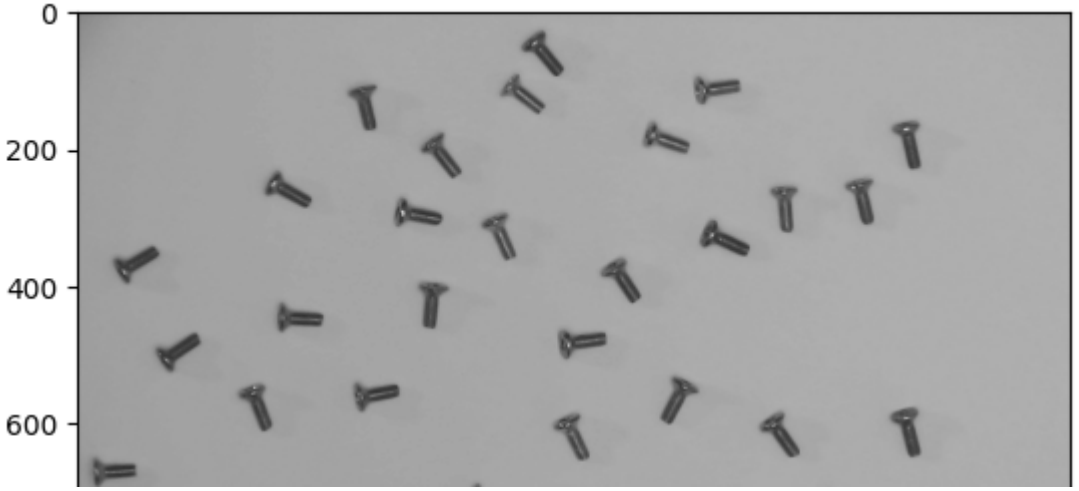
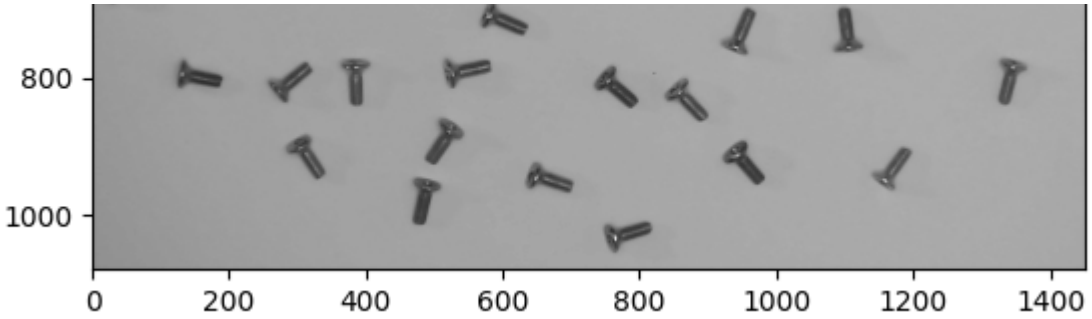
```
# Import libraries
import cv2
import numpy as np
import matplotlib.pyplot as plt



#image = cv2.imread('img1.jpg')
#image = cv2.imread('img1_43_nosy.jpg')
#image = cv2.imread('img.jpg')
#image = cv2.imread('img3.jpg')
#image = cv2.imread('img14.jpg')
#image = cv2.imread('img5.jpg')
#image = cv2.imread('img6.jpg')
#image = cv2.imread('1.jpg')
#image = cv2.imread('2.jpg')
#image = cv2.imread('3.jpg')
#image = cv2.imread('4.jpg')
#image = cv2.imread('6.jpg')
#image = cv2.imread('5.jpg')
#image = cv2.imread('7.jpg')
#image = cv2.imread('8.jpg')
#image = cv2.imread('9.jpg')
#image = cv2.imread('10.jpg')
#image = cv2.imread('11.jpg')
#image = cv2.imread('12.jpg')
#image = cv2.imread('13.jpg')
#image = cv2.imread('14.jpg')
#image = cv2.imread('15.jpg')
image = cv2.imread('/content/screwnots/img1.jpg')

gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
plt.imshow(gray, cmap='gray')
```

```
<matplotlib.image.AxesImage at 0x7f065424b640>
```






```
blur = cv2.GaussianBlur(gray, (11, 11), 0)
canny = cv2.Canny(blur, 30, 150, 3)
dilated = cv2.dilate(canny, (1, 1), iterations=0)

(cnt, hierarchy) = cv2.findContours(
    dilated.copy(), cv2.RETR_EXTERNAL, cv2.CHAIN_APPROX_NONE)
rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
cv2.drawContours(rgb, cnt, -1, (0, 255, 0), 2)
```

```
array([[[141, 141, 139],
        [140, 140, 138],
        [141, 141, 139],
        ...,
        [173, 175, 174],
        [173, 175, 174],
        [173, 175, 174]],

       [[140, 140, 138],
        [140, 140, 138],
        [140, 140, 138],
        ...,
        [173, 175, 174],
        [173, 175, 174],
        [173, 175, 174]],

       [[139, 139, 139],
        [139, 139, 139],
        [139, 139, 139],
        ...,
        [173, 175, 174],
        [173, 175, 174],
        [173, 175, 174]],

       ...,

       [[143, 146, 151],
        [143, 146, 151],
        [143, 146, 151],
        ...,
        [167, 171, 170],
        [167, 171, 170],
        [167, 171, 170]],

       [[143, 146, 151],
        [143, 146, 151],
        [143, 146, 151],
        ...,
```

```
            [167, 171, 170],
            [167, 171, 170],
            [167, 171, 170]],

           [[144, 147, 152],
            [143, 146, 151],
            [143, 146, 151],
            ...,
            [166, 170, 169],
            [166, 170, 169],
            [166, 170, 169]]], dtype=uint8)
```

```
print("screw Nots in the image total Nos : ", len(cnt))
```

```
    screw Nots in the image total Nos :  65
```

```
# genai base image count generator

def count_objects('/content/screwnots'):
  image = cv2.imread(image_path)
  gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
  blur = cv2.GaussianBlur(gray, (11, 11), 0)
  canny = cv2.Canny(blur, 30, 150, 3)
  dilated = cv2.dilate(canny, (1, 1), iterations=0)
  (cnt, hierarchy) = cv2.findContours(
      dilated.copy(), cv2.RETR_EXTERNAL, cv2.CHAIN_APPROX_NONE)
  return len(cnt)

# Example usage
image_path = '16.jpg'  # Replace with your image path
count = count_objects(image_path)
print("Number of objects in the image:", count)
```

```
      File "<ipython-input-82-a1afb7a82ba8>", line 3
        def count_objects('/content/screwnots'):
                          ^
    SyntaxError: invalid syntax
```

Next steps: Fix error

```
1    1 # genai base image count generator one by one  setup image
2    2
3    3 import cv2
4    4 import numpy as np
```

```
import matplotlib.pyplot as plt

def count_objects():
  image = cv2.imread(image_path)
  gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
  blur = cv2.GaussianBlur(gray, (11, 11), 0)
  canny = cv2.Canny(blur, 30, 150, 3)
  dilated = cv2.dilate(canny, (1, 1), iterations=0)
  (cnt, hierarchy) = cv2.findContours(
      dilated.copy(), cv2.RETR_EXTERNAL, cv2.CHAIN_APPROX_NONE)
  return len(cnt)

# Directory containing images
image_dir = '.'  # Replace with the actual directory

import os
for filename in os.listdir(image_dir):
  if filename.endswith('.jpg') or filename.endswith('.png'):  # Adjus
    image_path = os.path.join(image_dir, filename)
    count = count_objects(image_path)
    print(f"Number of objects in {filename}: {count}")

```

✓ ✗