

(c) Opening → erosion followed by dilation

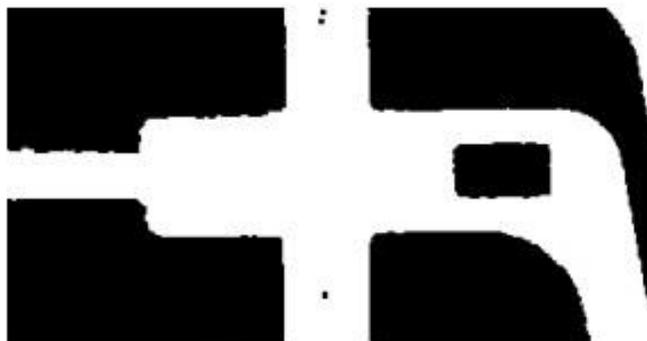
```
import cv2
import numpy as np
from matplotlib import pyplot as plt

I1 = cv2.imread('leadframe2_cropped.jpg')
cv2.imshow('Original image', I1)
plt.hist(I1.ravel(), 256, [0, 256]); plt.show()

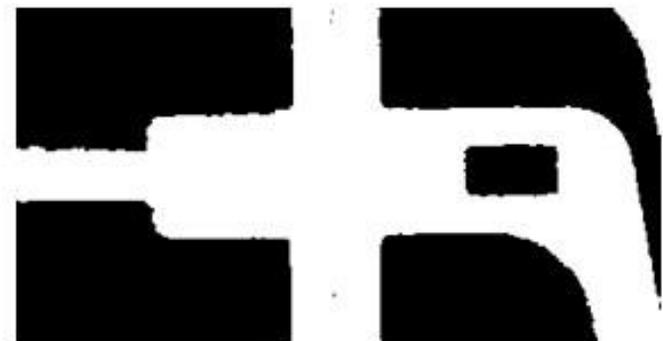
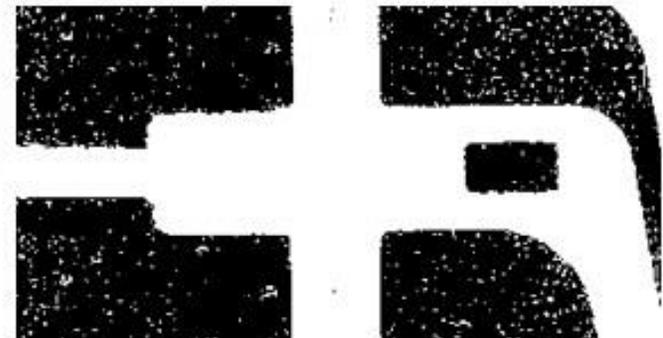
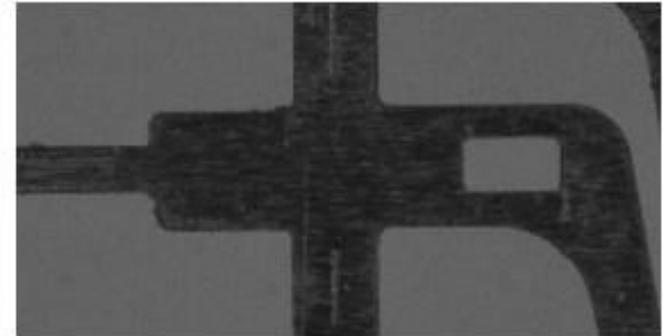
ret, I1_bw = cv2.threshold(I1, 95, 255, cv2.THRESH_BINARY_INV)
cv2.imshow('After thresholding', I1_bw)
cv2.imwrite('leadframe2_cropped_bw.jpg', I1_bw)

# apply erosion
str1 = np.ones((3, 3), np.uint8)
I2 = cv2.morphologyEx(I1_bw, cv2.MORPH_OPEN, str1)
cv2.imshow('Image after close', I2)
```

Let's think: What is the difference between erosion and opening?



Erosion



Opening