

In [4]:

```
import cv2
image = cv2.imread("input/desk1.jpg")
gray = cv2.cvtColor(image,cv2.COLOR_BGR2GRAY) # grayscale
_,thresh = cv2.threshold(gray,150,255,cv2.THRESH_BINARY_INV)
#threshhold
kernel = cv2.getStructuringElement(cv2.MORPH_CROSS,(3,3))
dilated = cv2.dilate(thresh,kernel,iterations = 13) # dilate
contours, hierarchy = cv2.findContours(dilated,cv2.RETR_EXTERNAL
,cv2.CHAIN_APPROX_NONE)
# get contours
# for each contour found, draw a rectangle around it on original
image
for contour in contours:

    # get rectangle bounding contour

    [x,y,w,h] = cv2.boundingRect(contour)
    # discard areas that are too large

    if h>300 and w>300:

        continue
    # discard areas that are too small

    if h<40 or w<40:

        continue
    # draw rectangle around contour on original image

    cv2.rectangle(image,(x,y),(x+w,y+h),(255,0,255),2)
# write original image with added contours to disk

cv2.imwrite("output/desk1_contoured.jpg", image)
```

Out[4]:

True

In []: