

## *# IMAGE TO SKETCH CONVERTER*

*#Step - 1 - Load Libraries and Image*

*#Step - 2 - Convert Image into Gray Scale*

*#Step - 3 - Inverted Gray Scale Image [For Shifting toward selected channel]*

*#Step - 4 - Apply Image Smoothing For Shading effect*

*#Step - 5 - Invert Blur Image and Apply division between gray and invert\_blur.*

*#-----  
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*#Step-1*

*import numpy as np*

*import cv2*

*#Read Image-----*

*img = cv2.imread("hulk.jpg")*

*img = cv2.resize(img, (800, 600))*

*#Create Trackbar----*

*def nothing(x):*

*pass*

```
#window name
cv2.namedWindow("Color
Adjustments",cv2.WINDOW_NORMAL)
cv2.resizeWindow("Color Adjustments", (300,
300))
cv2.createTrackbar("Scale", "Color
Adjustments", 0, 255, nothing)
cv2.createTrackbar("Color", "Color
Adjustments", 0, 255, nothing)

#Step -2
#Convert into gray--
gray = cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)

while True:
    scale = cv2.getTrackbarPos("Scale",
"Color Adjustments")
    clr = cv2.getTrackbarPos("Color", "Color
Adjustments") #getting track bar value

    #Extracting Color Code --
    #Step - 3
    inverted_gray = clr - gray #inverted
color image
    #Step -4
```

```
    blur_img =  
cv2.GaussianBlur(inverted_gray, (21, 21), 0)  
    #Step -5  
    inverted_blur = clr - blur_img #inverted  
blured image  
    fltr =  
cv2.divide(gray, inverted_blur, scale = scale)
```

```
#Output-----  
cv2.imshow("opt", fltr)  
k = cv2.waitKey(1)  
if k == ord("q"):  
    break  
if k == ord("s"):  
    cv2.imwrite("res.jpg", fltr)
```

```
cv2.destroyAllWindows()
```