import cv2

import numpy as np

# And thus it begins

cap = cv2.VideoCapture(0)

font = cv2.FONT\_HERSHEY\_COMPLEX

#lala

while(1):

j=0

area =0

\_, frame = cap.read()

# Converts images from BGR to HSV

hsv = cv2.cvtColor(frame, cv2.COLOR\_BGR2HSV)

lower\_red = np.array([40,0,0])

upper\_red = np.array([66,255,255])

lower\_re = np.array([0,0,0])

upper\_re = np.array([255,255,255])

mask = cv2.inRange(hsv, lower\_red, upper\_red)

mask1 = cv2.inRange(hsv, lower\_re, upper\_re)

res = cv2.bitwise\_and(frame,frame, mask= mask)

if int(cv2.\_\_version\_\_[0]) > 3:

# Opencv 4.x.x

contours, \_ = cv2.findContours(mask, cv2.RETR\_TREE, cv2.CHAIN\_APPROX\_SIMPLE)

else:

# Opencv 3.x.x

\_, contours, \_ = cv2.findContours(mask, cv2.RETR\_TREE, cv2.CHAIN\_APPROX\_SIMPLE)

for cnt in contours:

area =area + cv2.contourArea(cnt)

approx = cv2.approxPolyDP(cnt, 0.02\*cv2.arcLength(cnt, True), True)

x = approx.ravel()[0]

y = approx.ravel()[1]

g = cv2.countNonZero(mask);

r = cv2.countNonZero(mask1);

if area >4400 and ( len(approx) != 4 or len(approx) != 6 or len(approx) != 12) :

cv2.drawContours(frame, [approx], 0, (0, 0, 0), 5)

j=j+cv2.contourArea(cnt)

#print(area)

cv2.imshow('This is whats seen',frame)

#cv2.imshow('mask',mask)

#cv2.imshow('res',res)

print('green cover percentage:', np.round(j/r\*100, 2))

k = cv2.waitKey(5)

if k == 'a':

break

#ch =input("enter o if u wanna see green cover percentage") #can change to something that sounds cooler

#if ch=='o':

cv2.destroyAllWindows()

cap.release()