import cv2

import numpy as np

cap = cv2.VideoCapture('vtest.avi')

frame\_width = int( cap.get(cv2.CAP\_PROP\_FRAME\_WIDTH))

frame\_height =int( cap.get( cv2.CAP\_PROP\_FRAME\_HEIGHT))

fourcc = cv2.VideoWriter\_fourcc('X','V','I','D')

out = cv2.VideoWriter("output.avi", fourcc, 5.0, (80,80))

ret, frame1 = cap.read()

ret, frame2 = cap.read()

print(frame1.shape)

while cap.isOpened():

diff = cv2.absdiff(frame1, frame2)

gray = cv2.cvtColor(diff, cv2.COLOR\_BGR2GRAY)

blur = cv2.GaussianBlur(gray, (5,5), 0)

\_, thresh = cv2.threshold(blur, 20, 255, cv2.THRESH\_BINARY)

dilated = cv2.dilate(thresh, None, iterations=3)

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

for contour in contours:

(x, y, w, h) = cv2.boundingRect(contour)

if cv2.contourArea(contour) < 900:

continue

cv2.rectangle(frame1, (x, y), (x+w, y+h), (0, 255, 0), 2)

cv2.putText(frame1, "Status: {}".format('Movement'), (10, 20), cv2.FONT\_HERSHEY\_SIMPLEX,

1, (0, 0, 255), 3)

cv2.drawContours(frame1, contours, -1, (0, 255, 0), 2)

image = cv2.resize(frame1, (1280,720))

out.write(image)

cv2.imshow("feed", frame1)

frame1 = frame2

ret, frame2 = cap.read()

if cv2.waitKey(40) == 27:

break

cv2.destroyAllWindows()

cap.release()

out.release()