import cv2

import numpy as np import smtplib import playsound import threading

Alarm\_Status = False Fire\_Reported = 0

def play\_function():

while True:

playsound.playsound('"C:/Users/Mr Nuthikatla/Downloads/fire\_alarm.mp3"',True)

video = cv2.VideoCapture(0)

while True:

(grabbed, frame) = video.read() if not grabbed:

break

frame = cv2.resize(frame, (960, 540))

blur = cv2.GaussianBlur(frame, (21, 21), 0) hsv = cv2.cvtColor(blur,

cv2.COLOR\_BGR2HSV)

lower = [18, 50, 50]

upper = [35, 255, 255]

lower = np.array(lower, dtype="uint8") upper = np.array(upper, dtype="uint8")

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

output = cv2.bitwise\_and(frame, hsv, mask=mask)

no\_red = cv2.countNonZero(mask)

if int(no\_red) > 25000:

Fire\_Reported = Fire\_Reported + 1

cv2.imshow("output", output)

if Fire\_Reported >= 1:

if Alarm\_Status == False:

start()

threading.Thread(target=play\_function).

Alarm\_Status = True if cv2.waitKey(1) == 13:

break

cv2.destroyAllWindows()

video.release()