

Computer vision – HW4

A、程式碼

```
import cv2
import numpy as np

def nothing(x): pass

cap = cv2.VideoCapture(0)

### Create window and trackbar. ###
cv2.namedWindow("Tracking")
cv2.createTrackbar("LOW" , "Tracking", 0, 255, nothing)
cv2.createTrackbar("HIGH", "Tracking", 255, 255, nothing)

while True:
    frame = cv2.imread('lena.jpg')
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY) # BGR to GRAY.

    ### Returns the current position of the specified trackbar. ###
    LOW = cv2.getTrackbarPos("LOW" , "Tracking")
    HIGH = cv2.getTrackbarPos("HIGH", "Tracking")

    ### Convert to numpy array. ###
    l_b = np.array([LOW,LOW,LOW])
    u_b = np.array([HIGH,HIGH,HIGH])

    ### Calculate 2 images. ###
    mask = cv2.inRange(frame, l_b, u_b) # Grab a specific range of colors.
    res = cv2.bitwise_and(gray, gray, mask=mask) # Perform "intersection"
operation on two images.

    ### Show image ###
    cv2.imshow("frame", frame)
    cv2.imshow("mask", mask)
    cv2.imshow("res", res)
```

```
key = cv2.waitKey(1)
if key == 27:
    break

cv2.destroyAllWindows()
```

B、成果圖



