期末報告 1121227（三） 林連發

1. 校慶大隊接力：訓導組長一夜未眠在校排棒次，於是新的程式出現

<https://clesamoslin.gitlab.io/data-grouper>

1. 程式設計怎變這麼簡單？

下載：<https://www.cles.cyc.edu.tw/modules/tad_uploader/index.php?of_cat_sn=21>

1. install python396(add to path check), 2.install pycharm(all check).3. pycharm,

在終端機模式：pip install opencv-python,pip install mediapipe.二個4.copy the

code to pycharm.

第一個程式：可顯示影像

import cv2

import mediapipe as mp

cap = cv2.VideoCapture(0)

while True:

  ret , img=cap.read()

  if ret:

     cv2.imshow('img',img)

  if cv2.waitKey(1)==ord('q'):

      break

第二個程式：可追蹤手部動作

import cv2

import mediapipe as mp

import time

cap = cv2.VideoCapture(0)

mpHands = mp.solutions.hands

hands = mpHands.Hands(min\_detection\_confidence=0.5, min\_tracking\_confidence=0.5)

mpDraw = mp.solutions.drawing\_utils

handLmsStyle = mpDraw.DrawingSpec(color=(0, 0, 255), thickness=3)

handConStyle = mpDraw.DrawingSpec(color=(0, 255, 0), thickness=5)

pTime = 0

cTime = 0

while True:

    ret, img = cap.read()

    if ret:

        imgRGB = cv2.cvtColor(img, cv2.COLOR\_BGR2RGB)

        result = hands.process(imgRGB)

        # print(result.multi\_hand\_landmarks)

        imgHeight = img.shape[0]

        imgWidth = img.shape[1]

        if result.multi\_hand\_landmarks:

            for handLms in result.multi\_hand\_landmarks:

                mpDraw.draw\_landmarks(img, handLms, mpHands.HAND\_CONNECTIONS, handLmsStyle, handConStyle)

                for i, lm in enumerate(handLms.landmark):

                    xPos = int(lm.x \* imgWidth)

                    yPos = int(lm.y \* imgHeight)

                    # cv2.putText(img, str(i), (xPos-25, yPos+5), cv2.FONT\_HERSHEY\_SIMPLEX, 0.4, (0, 0, 255), 2)

                    # if i == 4:

                    #     cv2.circle(img, (xPos, yPos), 20, (166, 56, 56), cv2.FILLED)

                    # print(i, xPos, yPos)

        cTime = time.time()

        fps = 1/(cTime-pTime)

        pTime = cTime

        cv2.putText(img, f"FPS : {int(fps)}", (30, 50), cv2.FONT\_HERSHEY\_SIMPLEX, 1, (255, 0, 0), 3)

        cv2.imshow('img', img)

    if cv2.waitKey(1) == ord('q'):

        break

1. 謝謝各位同學的分享，最近幾堂課真的讓我的教學更專業更有看頭！
2. 教學大要：

<https://studio.d-id.com/>

learnmode(excel etc…),

gen-2(https://runwayml.com/).

weshop ai,