

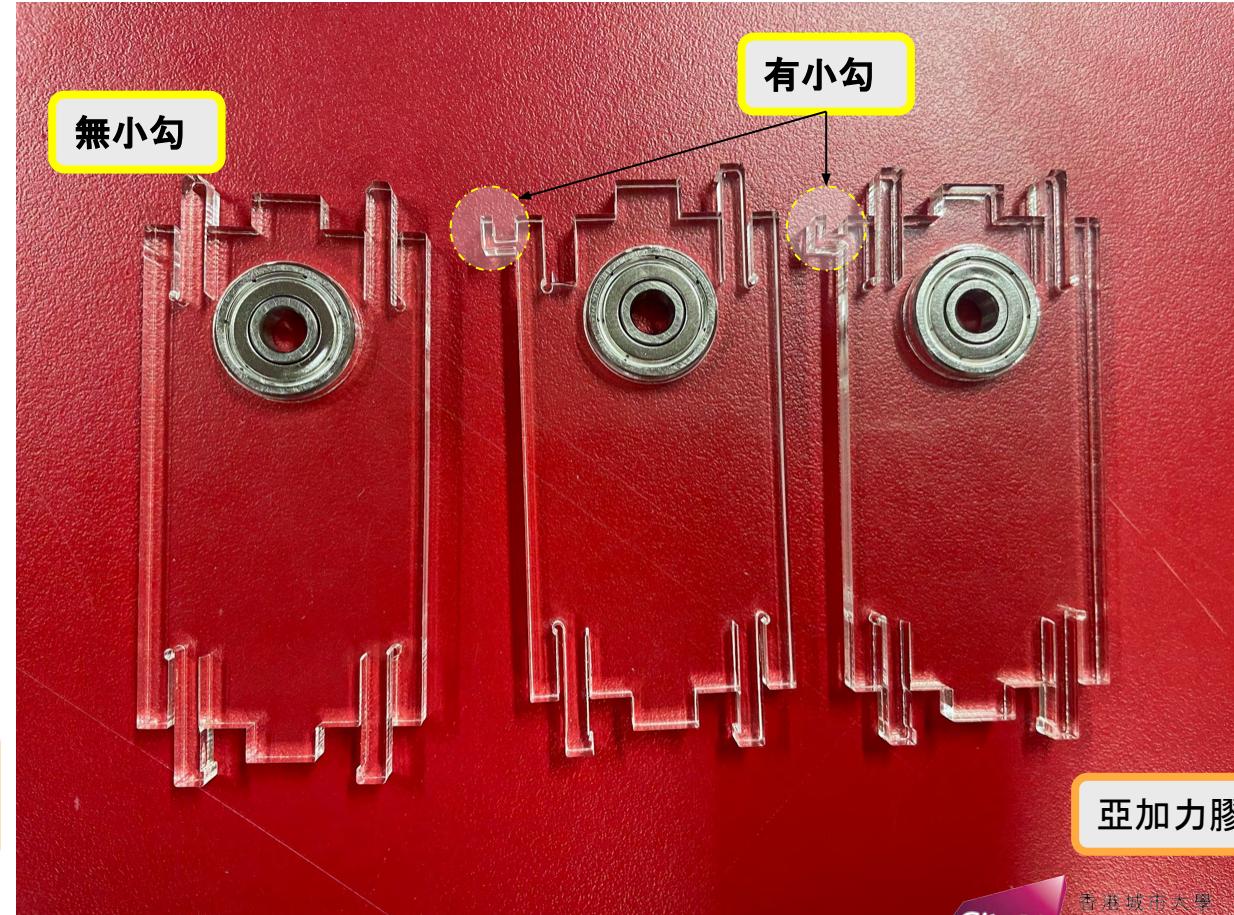
Step 1



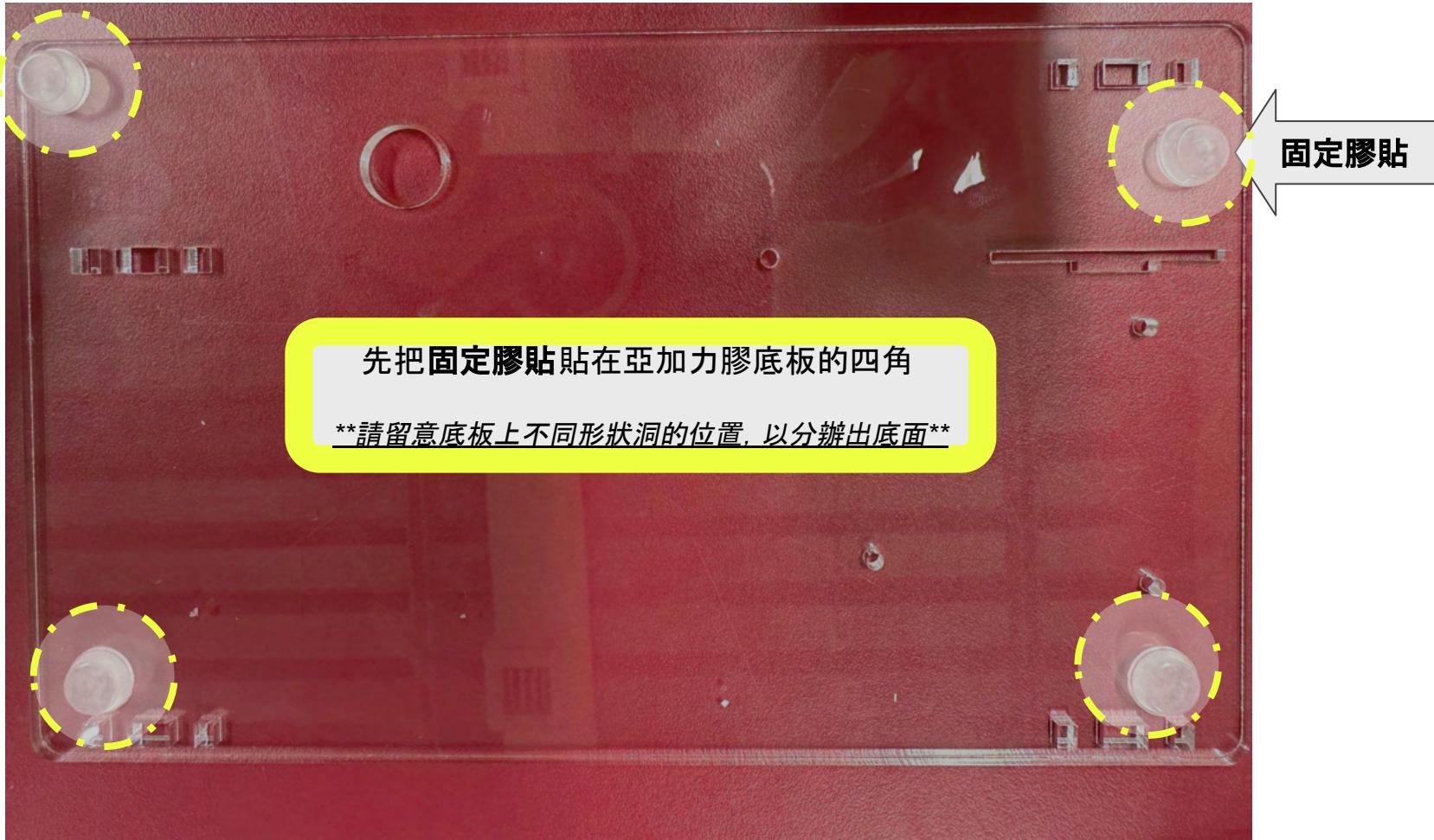
軸承

注意：
兩種不同的
亞加力膠支架

如果軸承與膠片之間有
鬆動，可用膠水黏合



Step 2



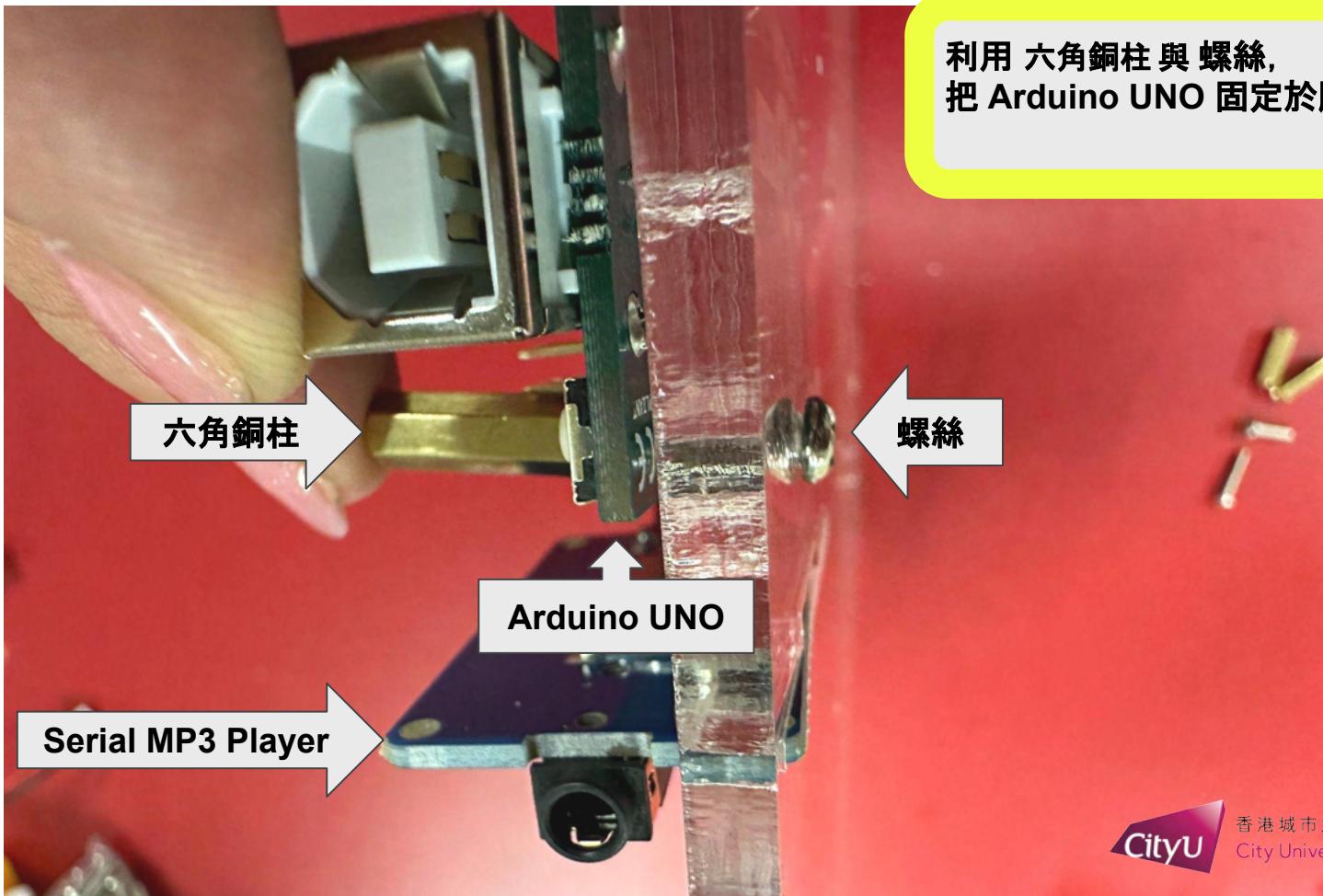
正面圖

Step 3

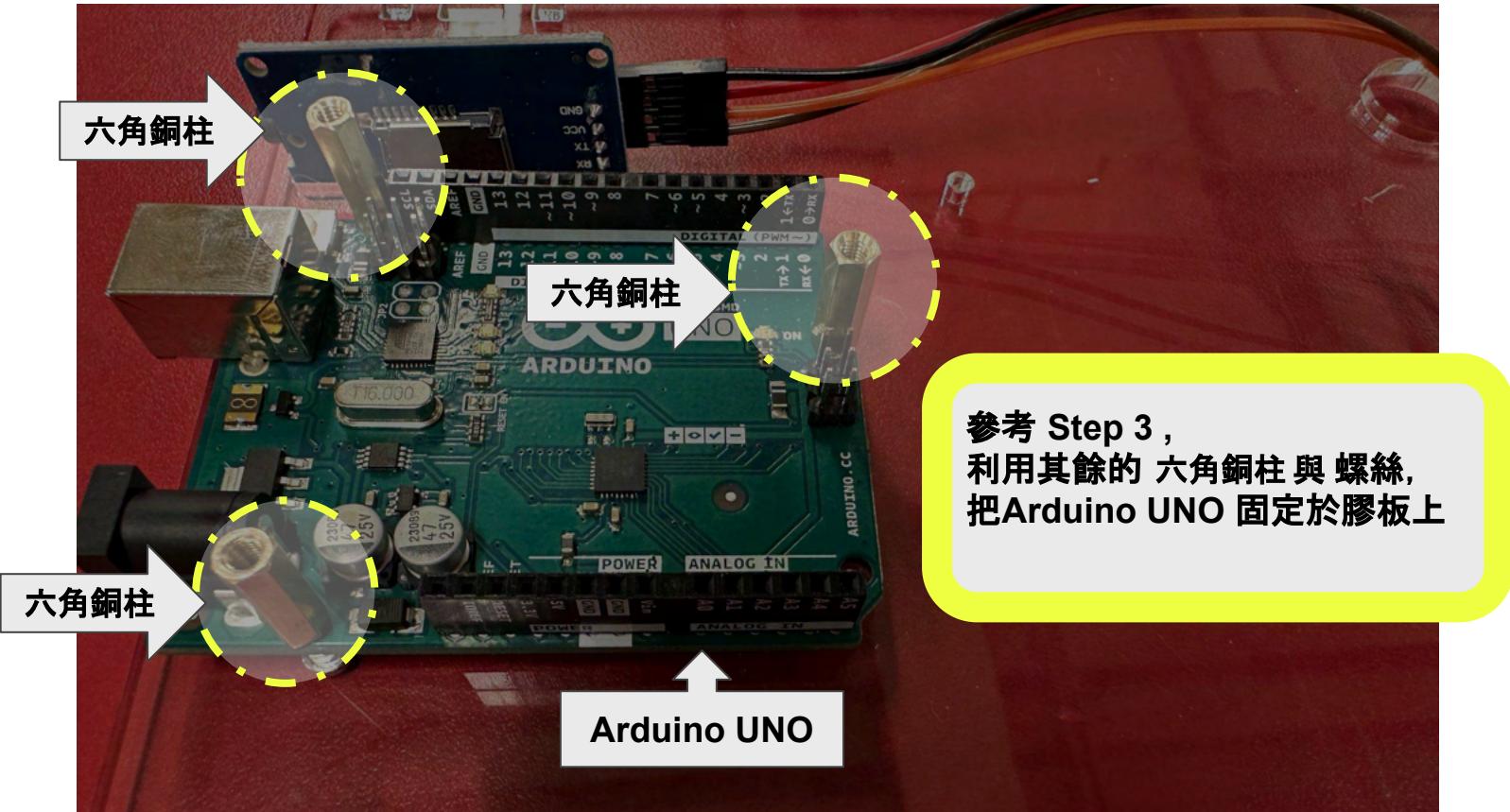


正面圖

Step 4



Step 5



參考 Step 3，
利用其餘的 六角銅柱 與 螺絲，
把Arduino UNO 固定於膠板上

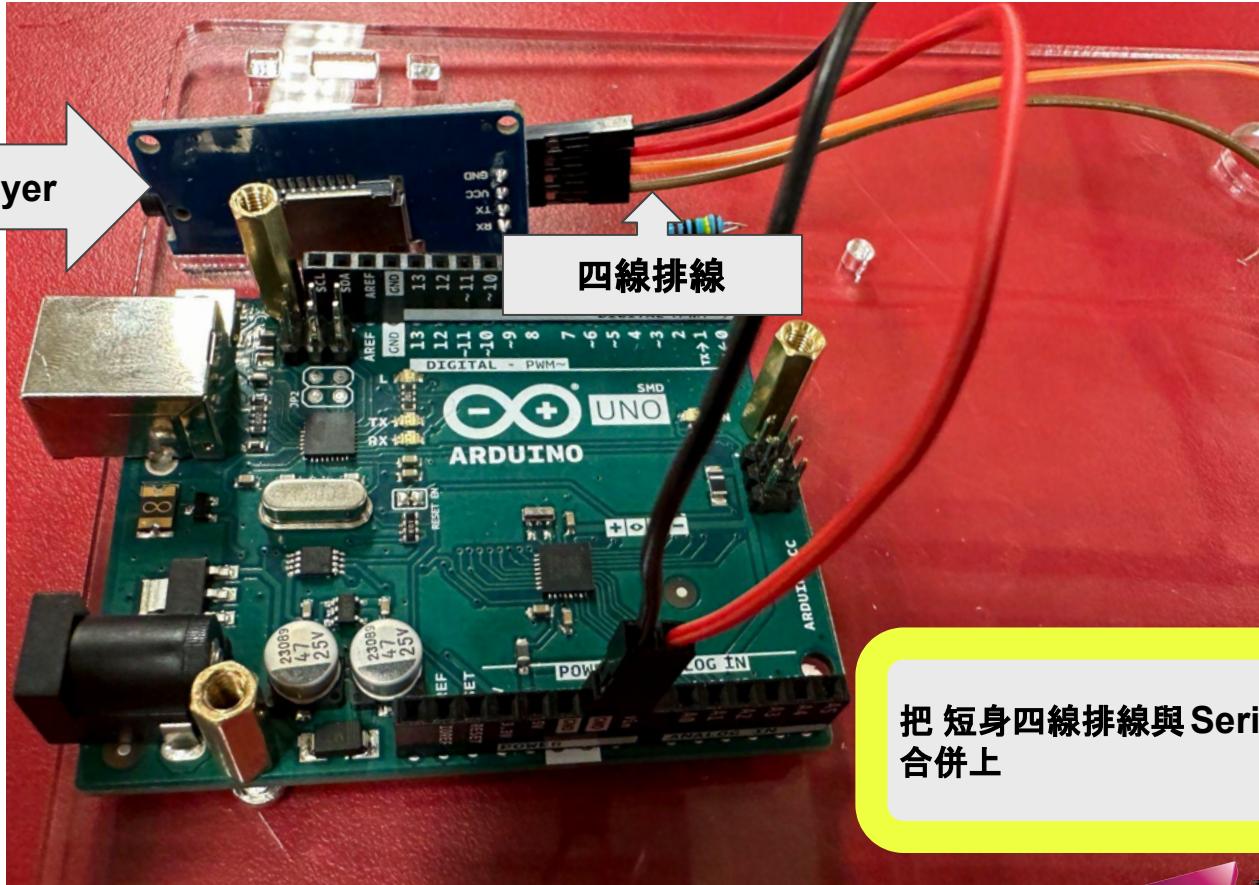
正面圖

Step 6

Serial MP3 Player

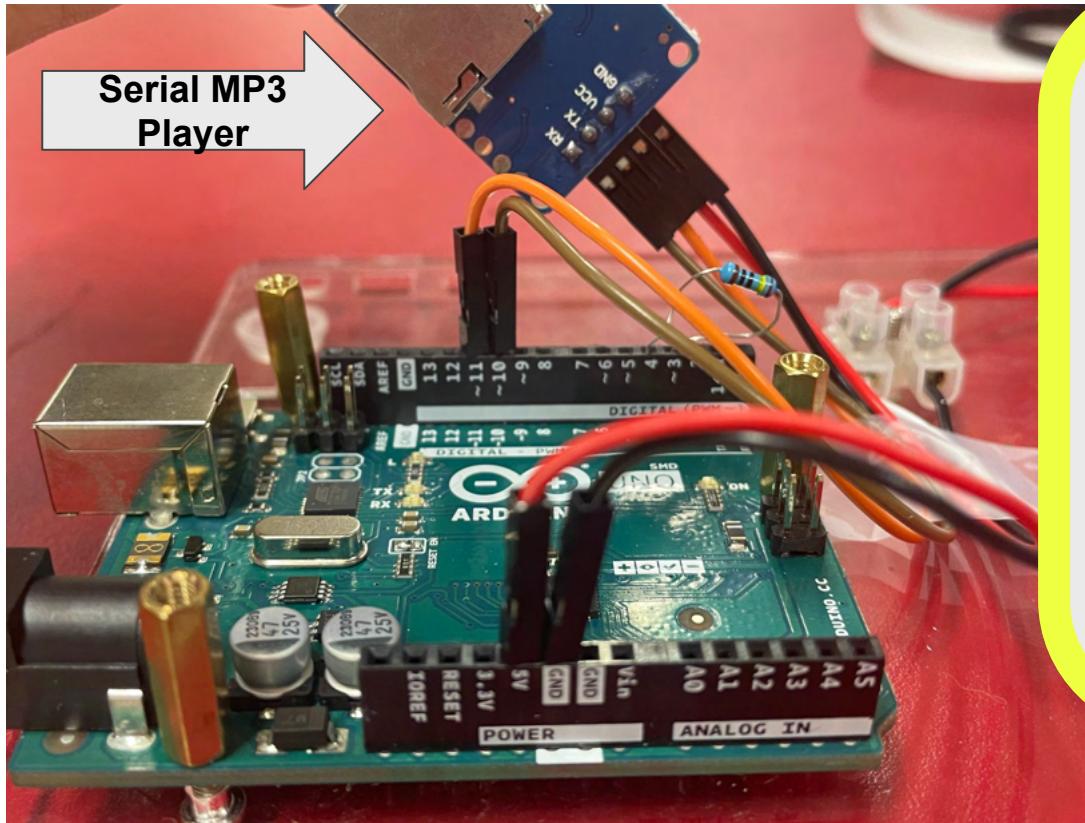
四線排線

把 短身四線排線與 Serial MP3 Player
合併上



正面圖

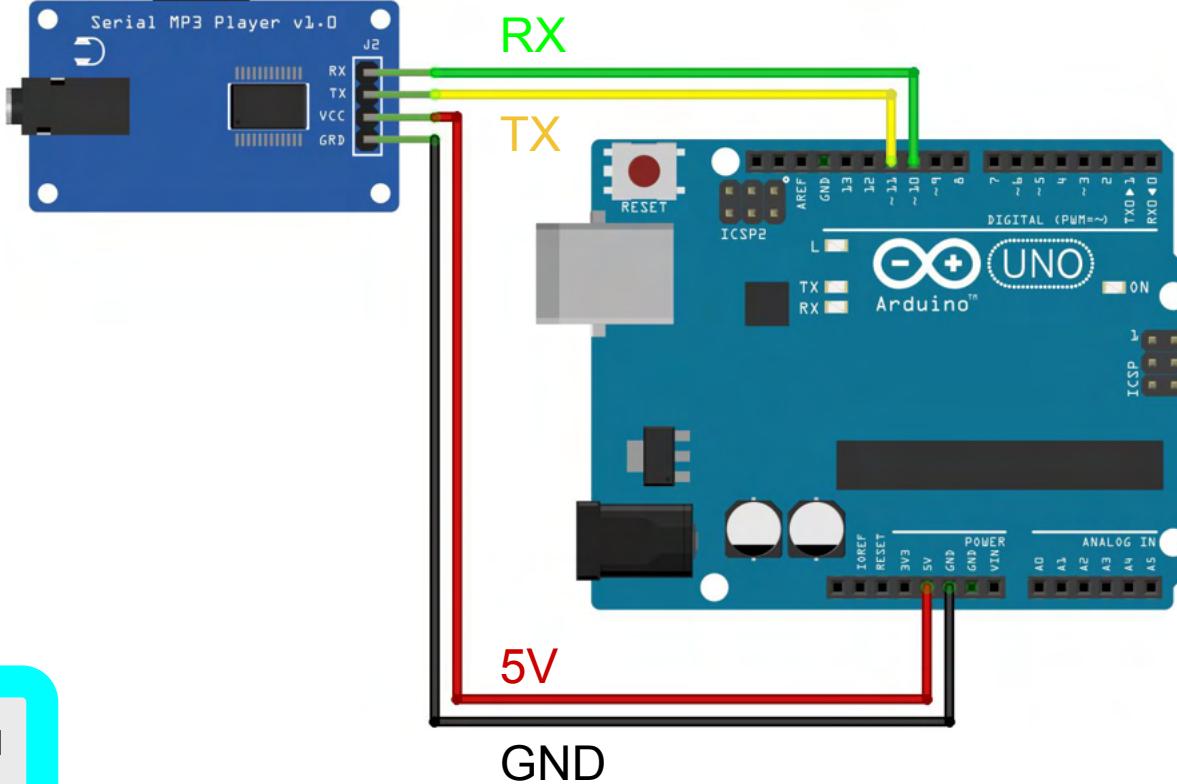
Step 7



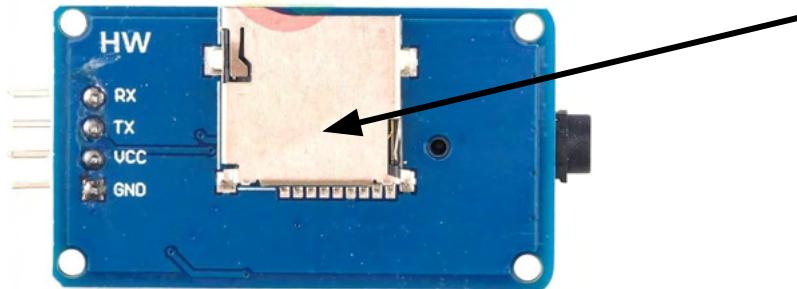
正面圖

1. 把 **Serial MP3 Player** 上的 GND 與 Arduino UNO 上的 GND 連結
2. 把 **Serial MP3 Player** 上的 VCC 與 Arduino UNO 上的 5V 連結
3. 把 **Serial MP3 Player** 上的 RX 與 Arduino UNO 上的 pin 10 連結
4. 把 **Serial MP3 Player** 上的 TX 與 Arduino UNO 上的 pin 11 連結

可參考下一頁的電路圖ho.1



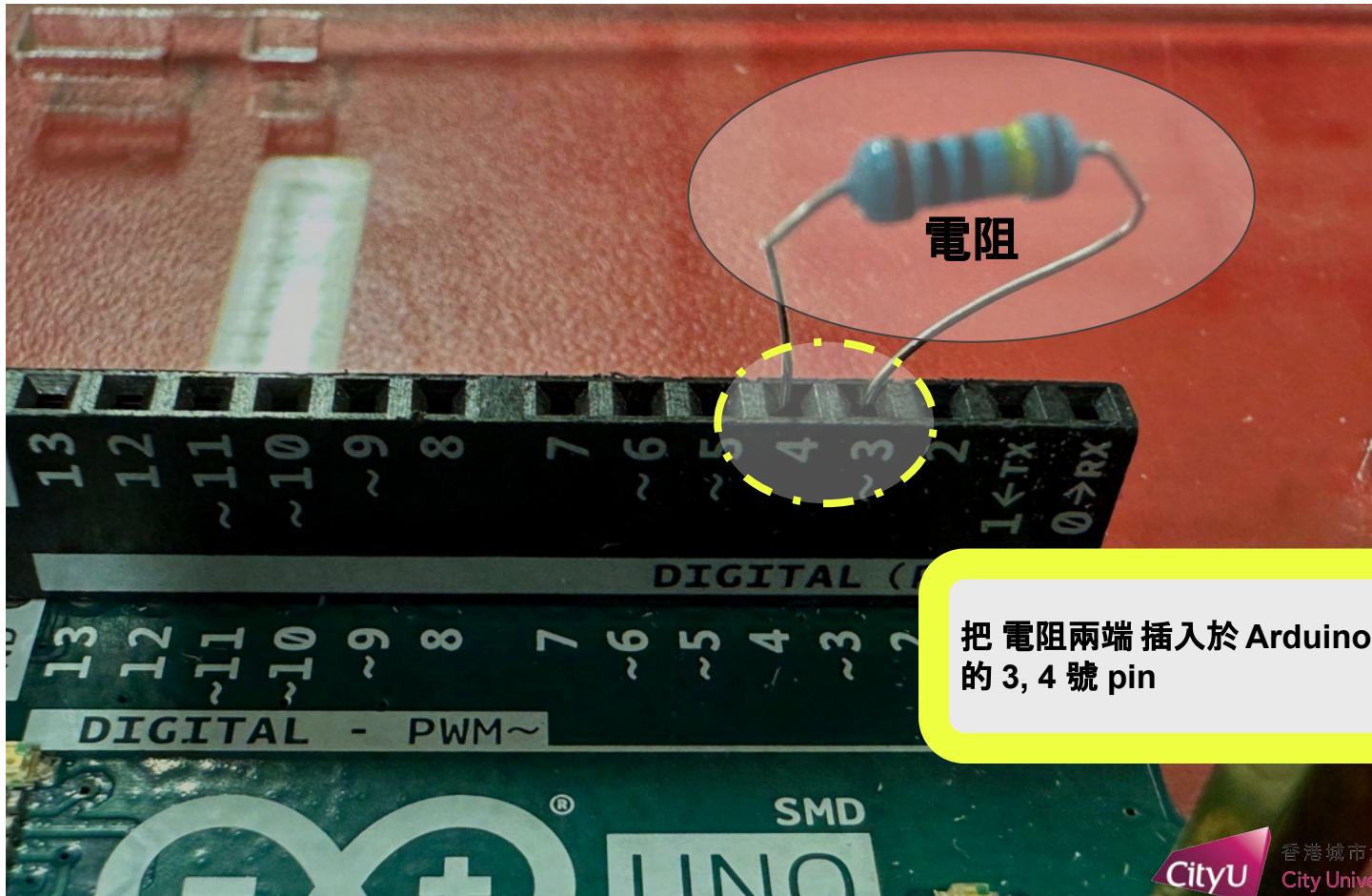
Step 8



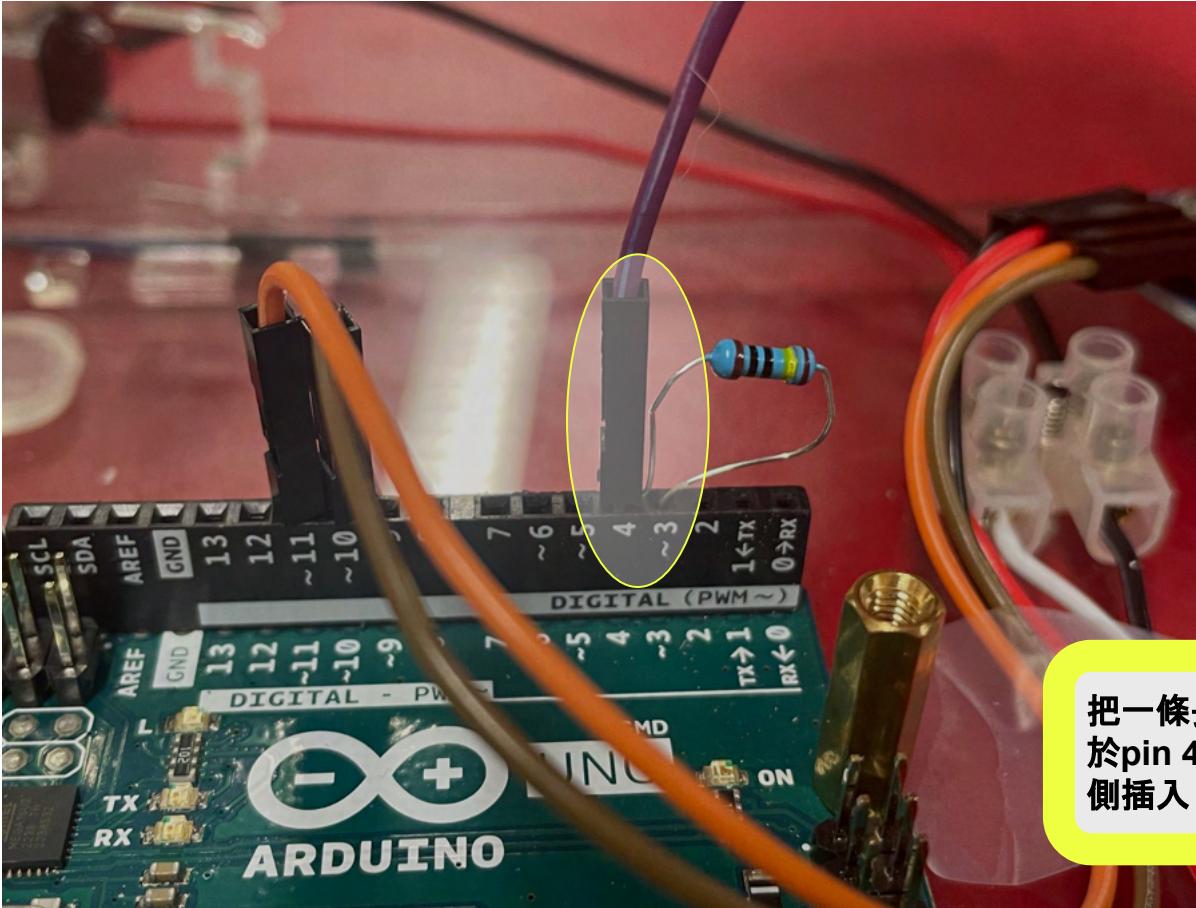
記得把 micro SD card 放入**Serial MP3 Player** 的卡槽內



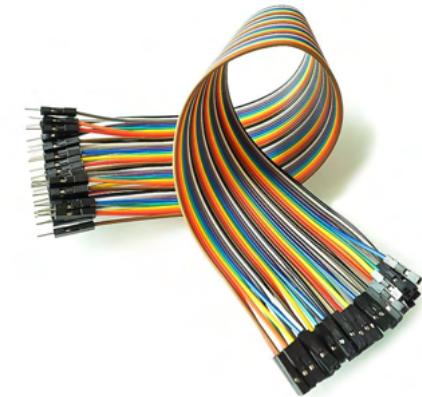
Step 9



Step 10



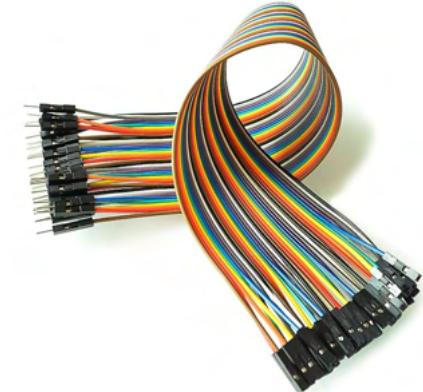
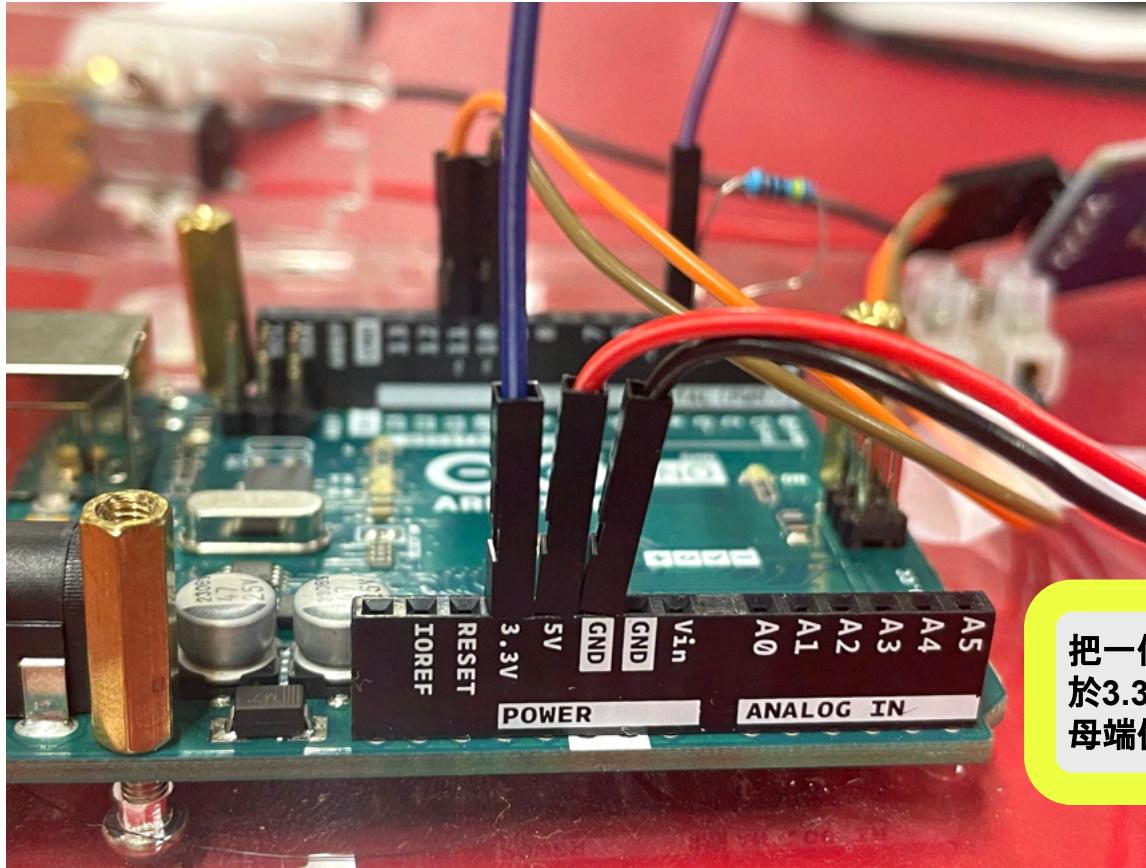
公-->母 杜邦線



把一條長身 公-->母 杜邦線的公端插入
於pin 4(與電阻其中一隻腳共用)，母端
側插入 導電引線 (Step 12)

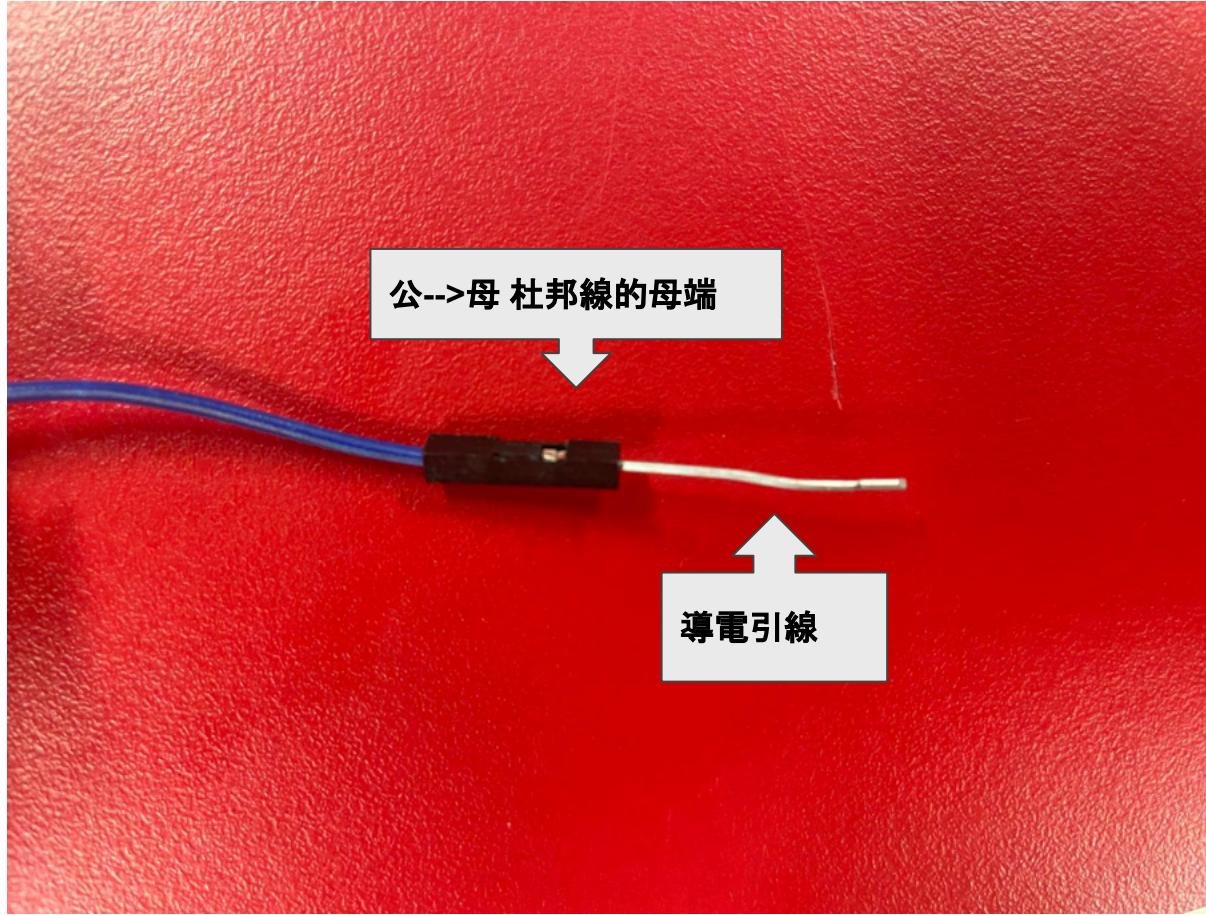
Step 11

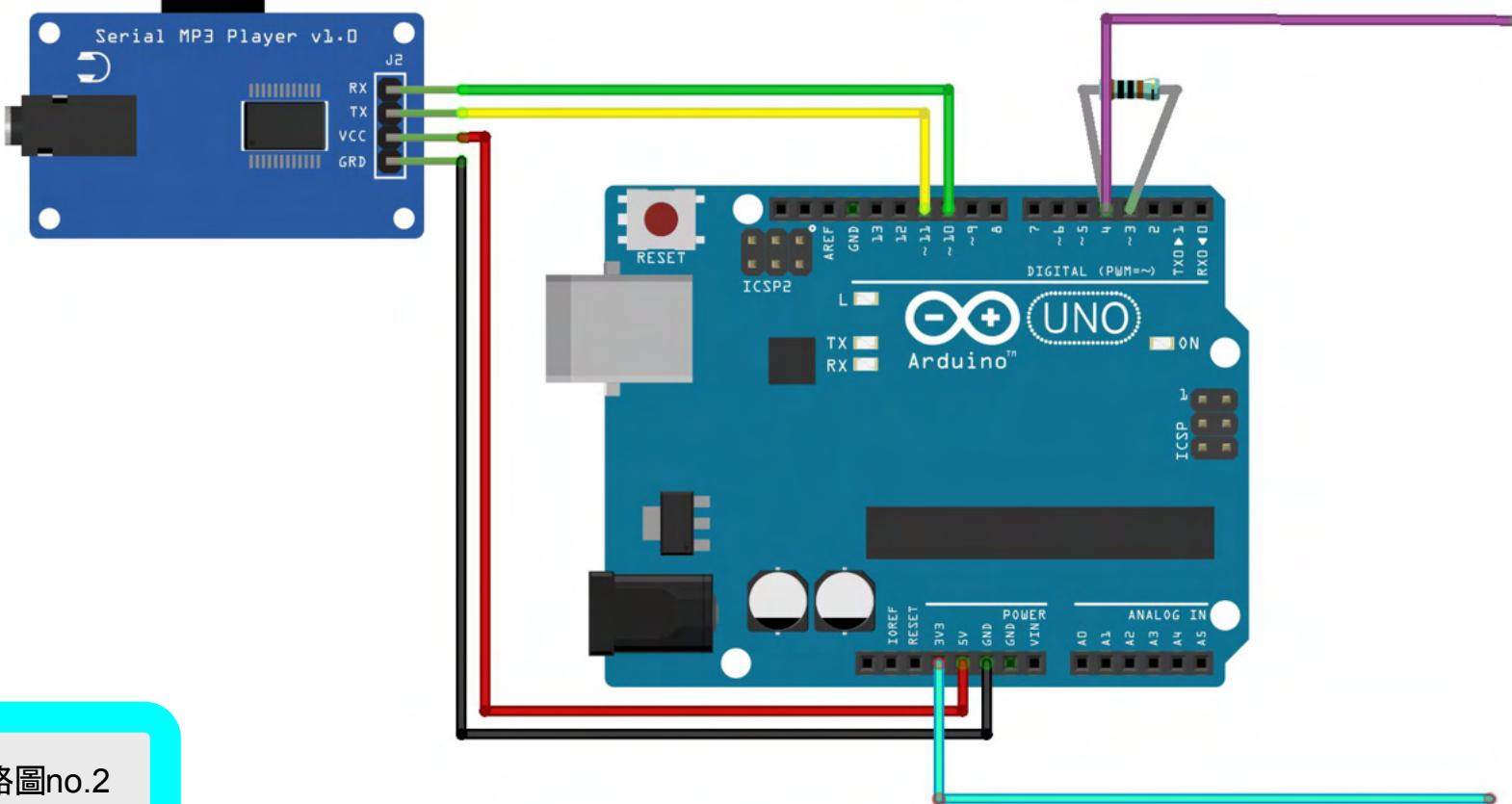
公-->母 杜邦線



把一條長身 公-->母 杜邦線的公端插入
於3.3V,
母端側插入導電引線 (Step 12)

Step 12

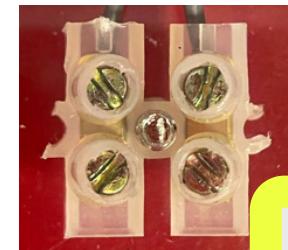




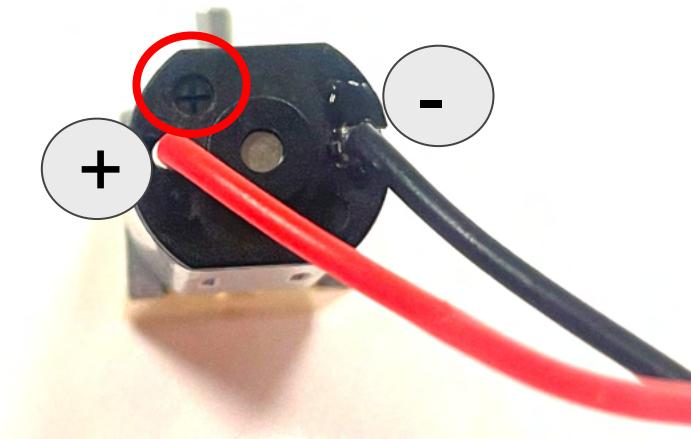
電路圖no.2



摩打正面圖



燈座正面圖

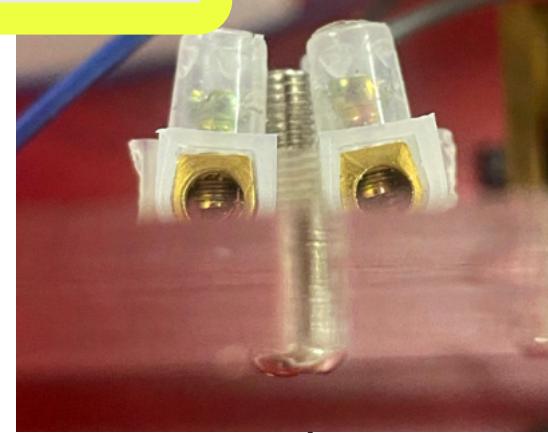


注意
摩打紅色電線為電路正極(+)
黑色電線 為電路負極(-)

Step 13



簪玉 正面圖



簪玉 側面圖

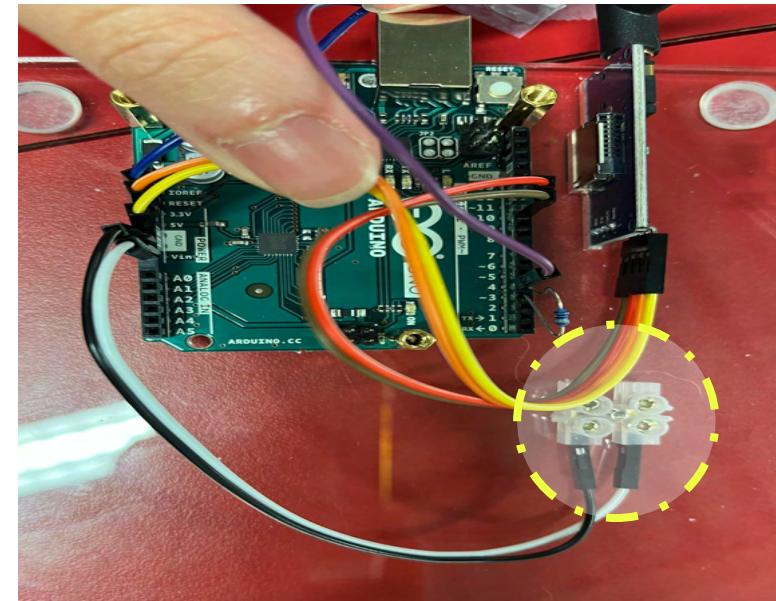
亞加力
膠底板

簪玉 正面圖

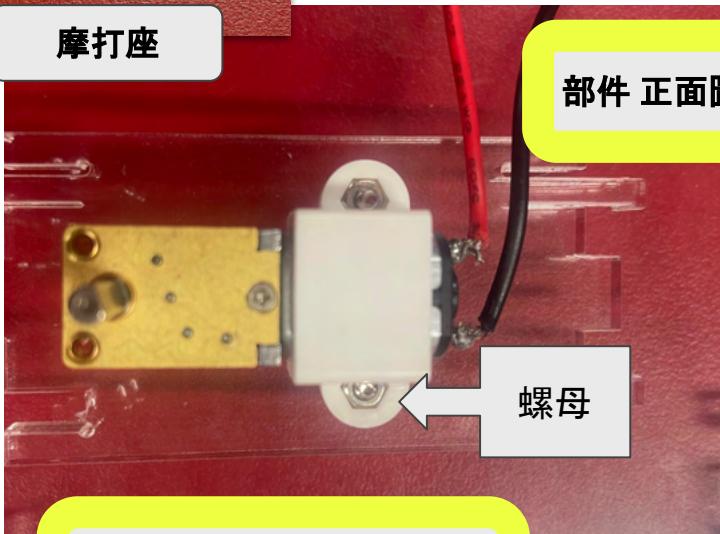
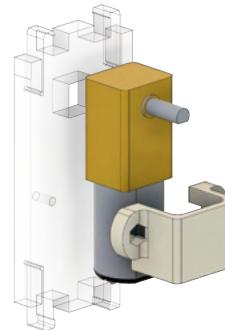
利用螺絲固定簪玉在
亞加力膠底板上

Step 14

把兩條 公-->公杜邦線的公端分別插入
於GND和Vin, 另一面接到簪玉



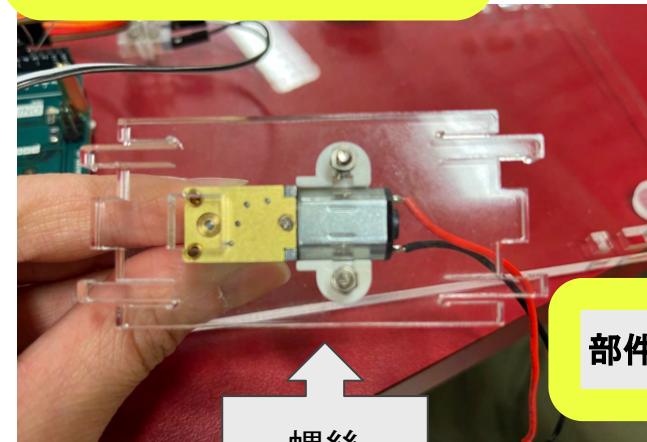
Step 15



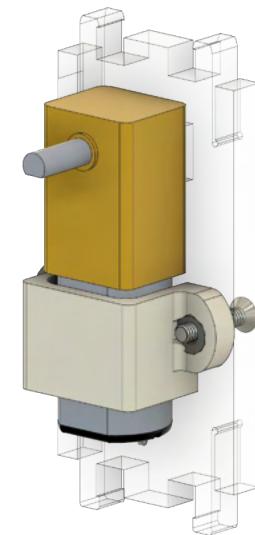
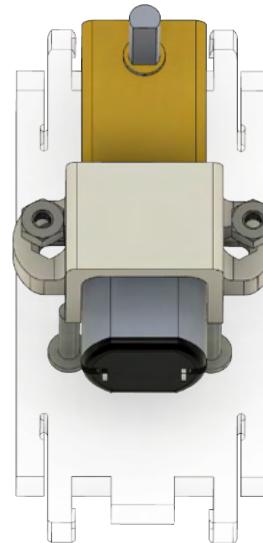
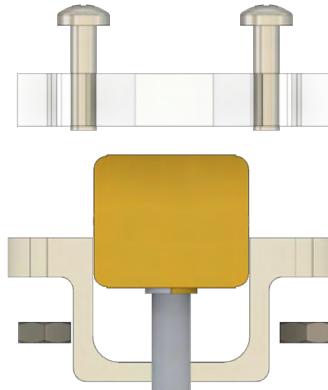
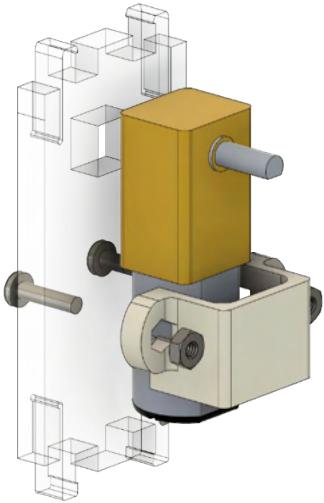
把 摩打安裝到**有方形**的亞加力膠板上

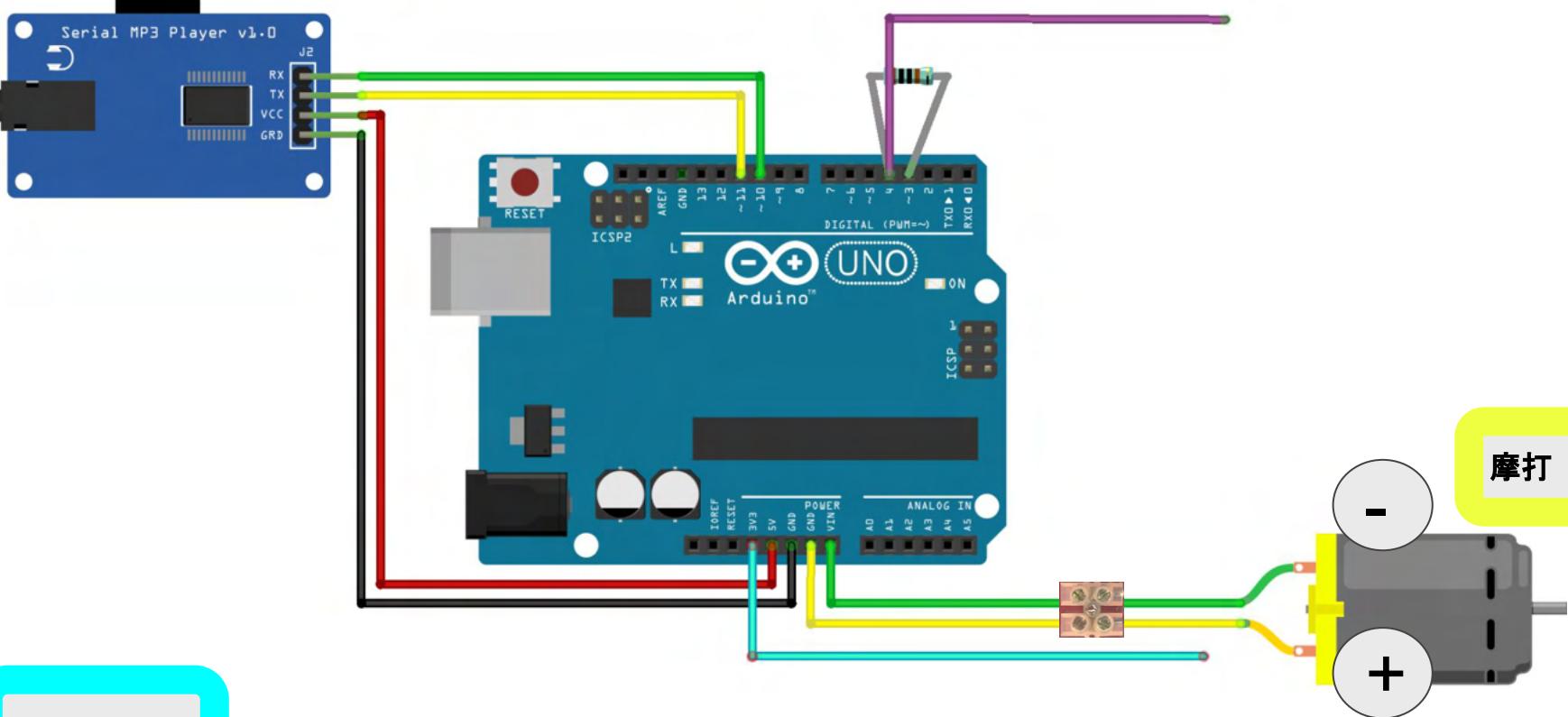
可參考下一頁

在背面以螺絲固定



18





Step 16



聯軸器



把 聯軸器放到摩打軸芯，有
洞的位置對準軸芯平面的部
分

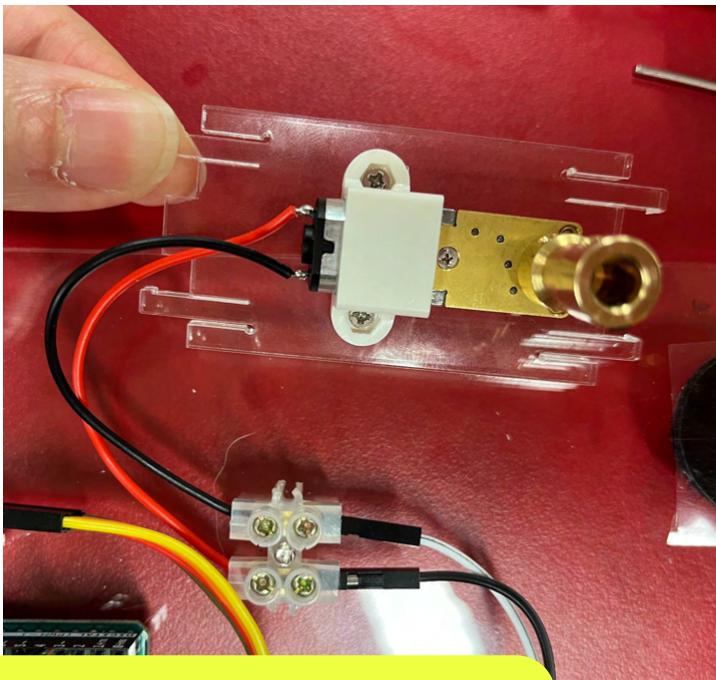


用六角匙把 機米放到聯軸器小洞上並
鎖緊，把聯軸器摩打連接一起

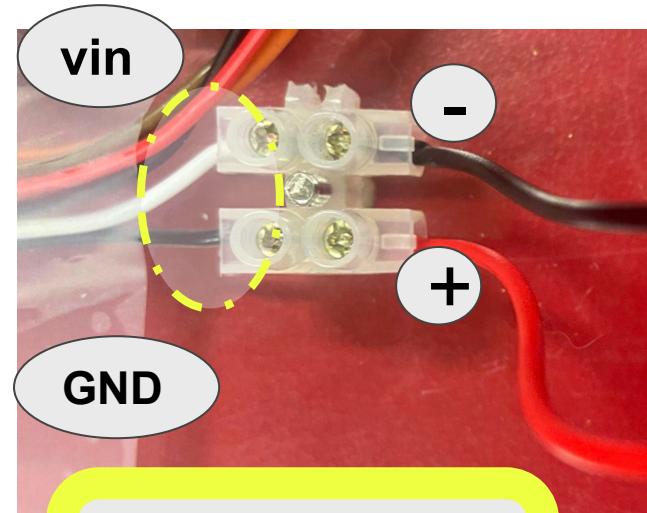


機米

Step 17



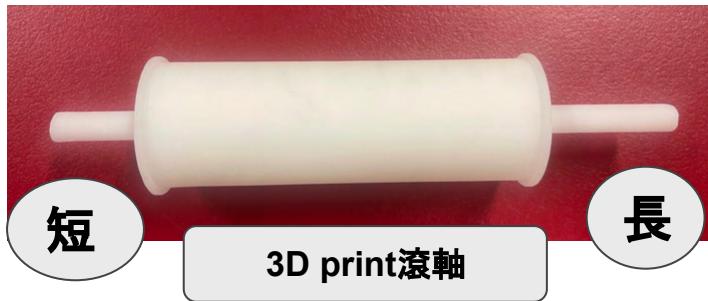
簪玉的另一端接到摩打的(+)和(-)



留意
要把vin接到摩打負極(-),
GND接到摩打正極(+)

使摩打逆時針轉

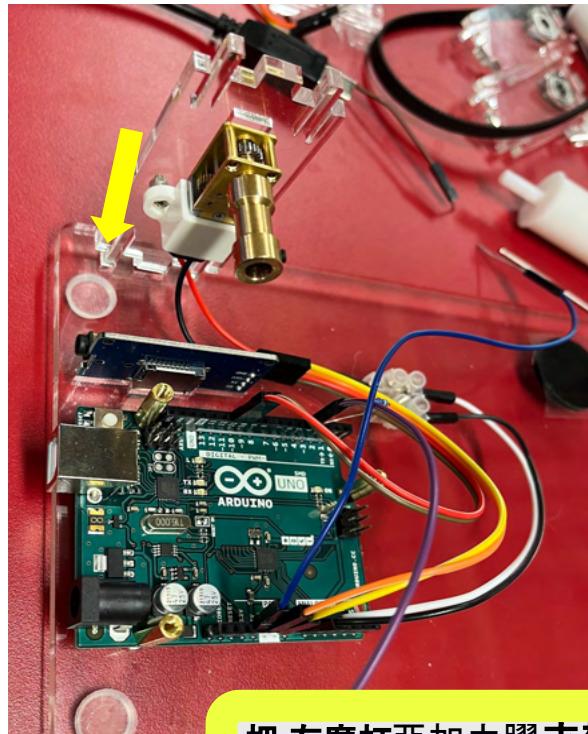
Step 18



把 同步輪 連接到 3D print滾軸 長邊,
用六角匙鎖緊，連接一起



Step 19

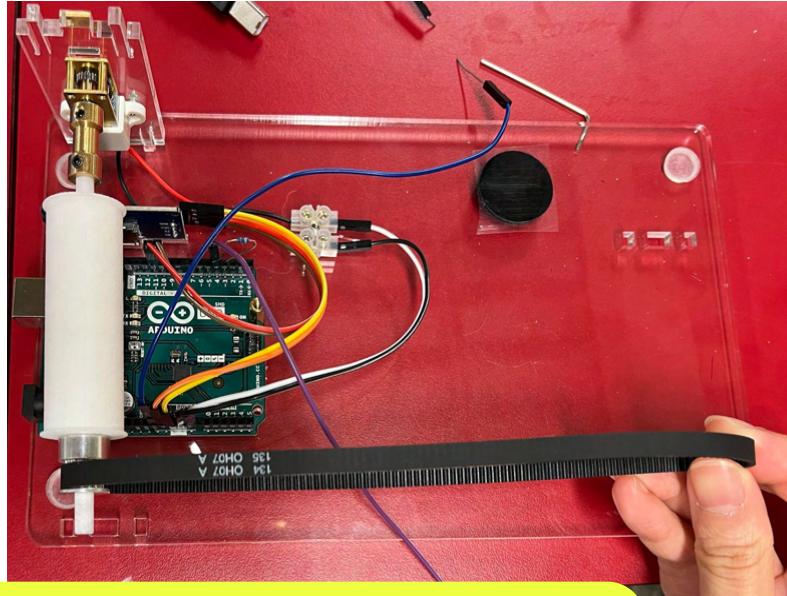


把有摩打亞加力膠支架插到底座上



然後把3D print滾軸短邊放到聯軸器中，先不用鎖緊

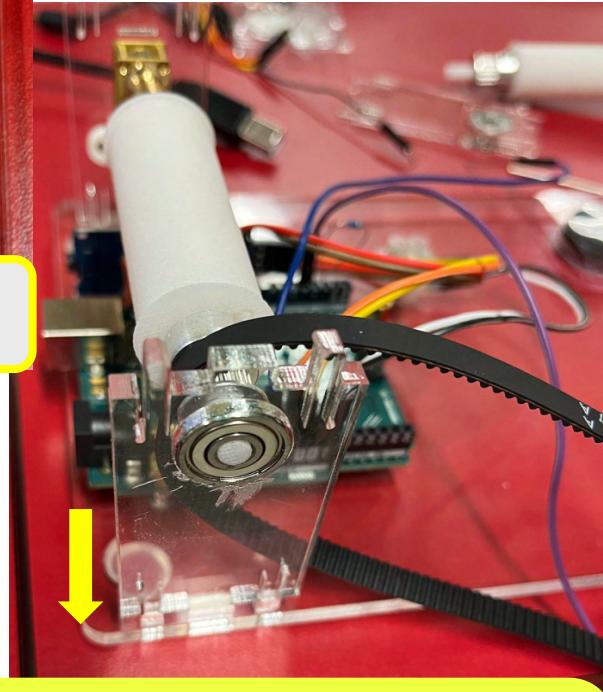
Step 20



把同步帶穿入3D print滾軸，與聯軸器的齒

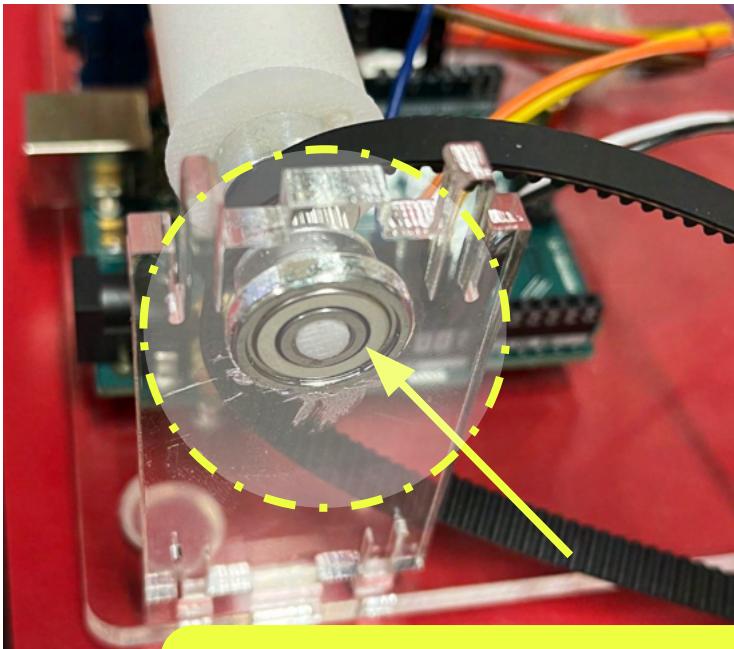


無小勾
亞加力膠支架



把無小勾亞加力膠支架插到底座上，記得將3D print滾軸穿過軸承

Step 21

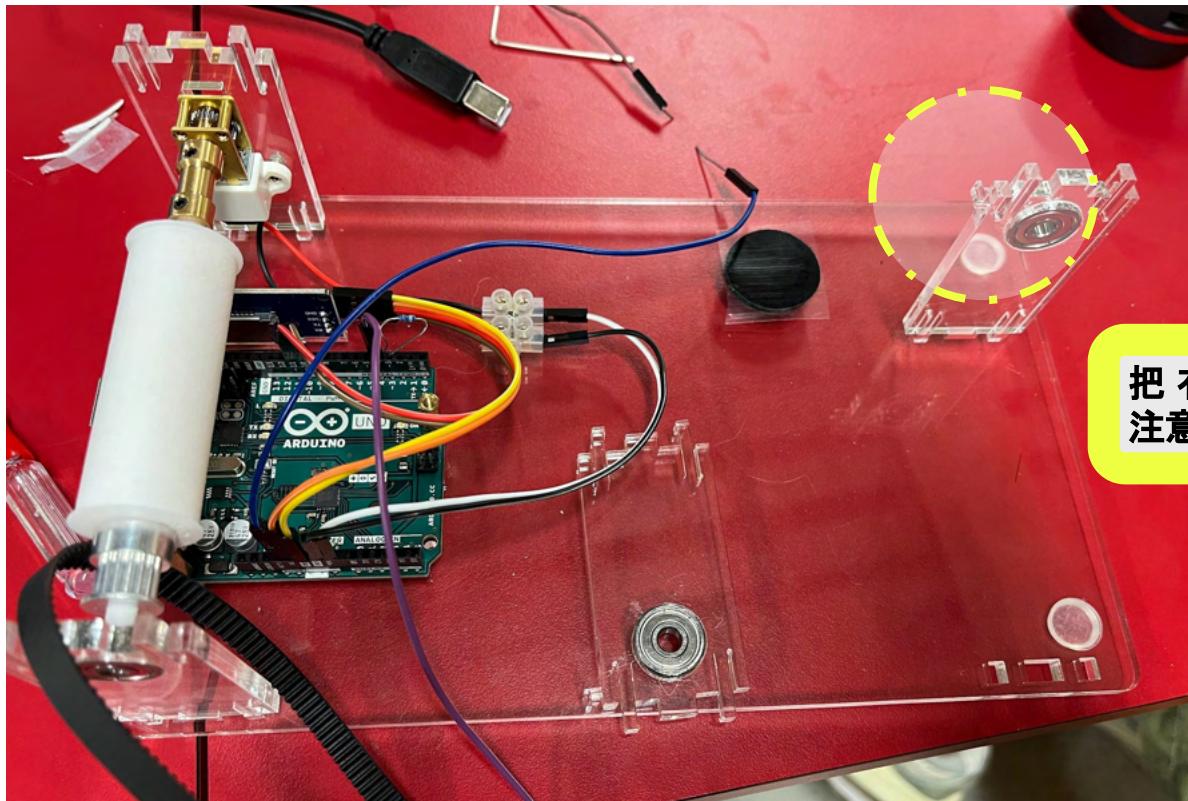


將3D print滾軸的位置調節, 與軸承並排



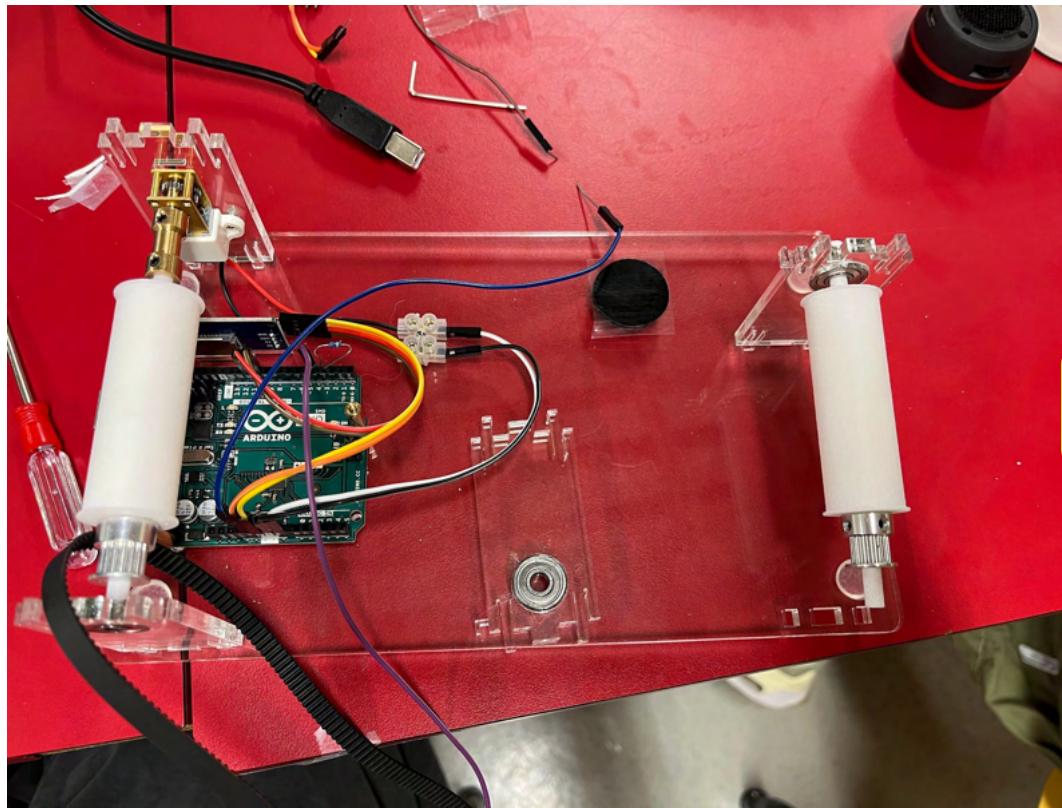
用六角匙把連接3D print滾軸短邊到聯軸器的位置鎖緊, 連接一起

Step 22



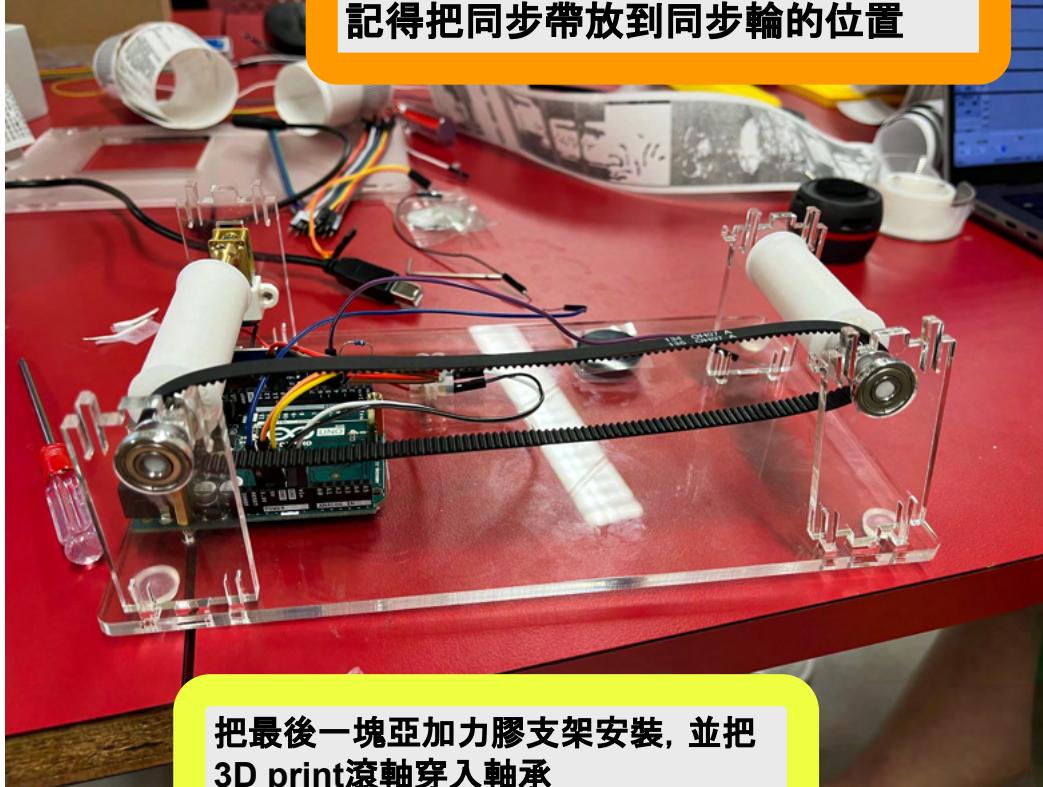
把有勾的亞加力膠支架 插到底座上，
注意勾要向內

Step 23

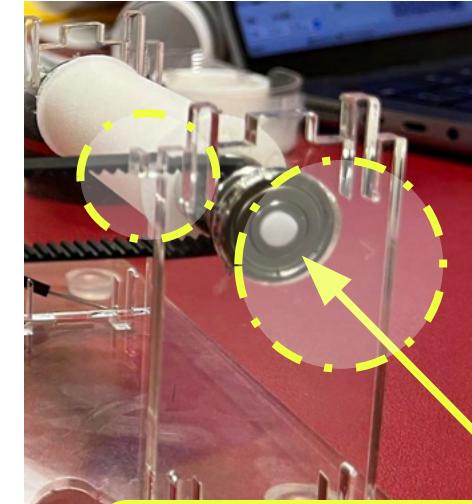


把 3D print滾軸短邊放到軸承

Step 24



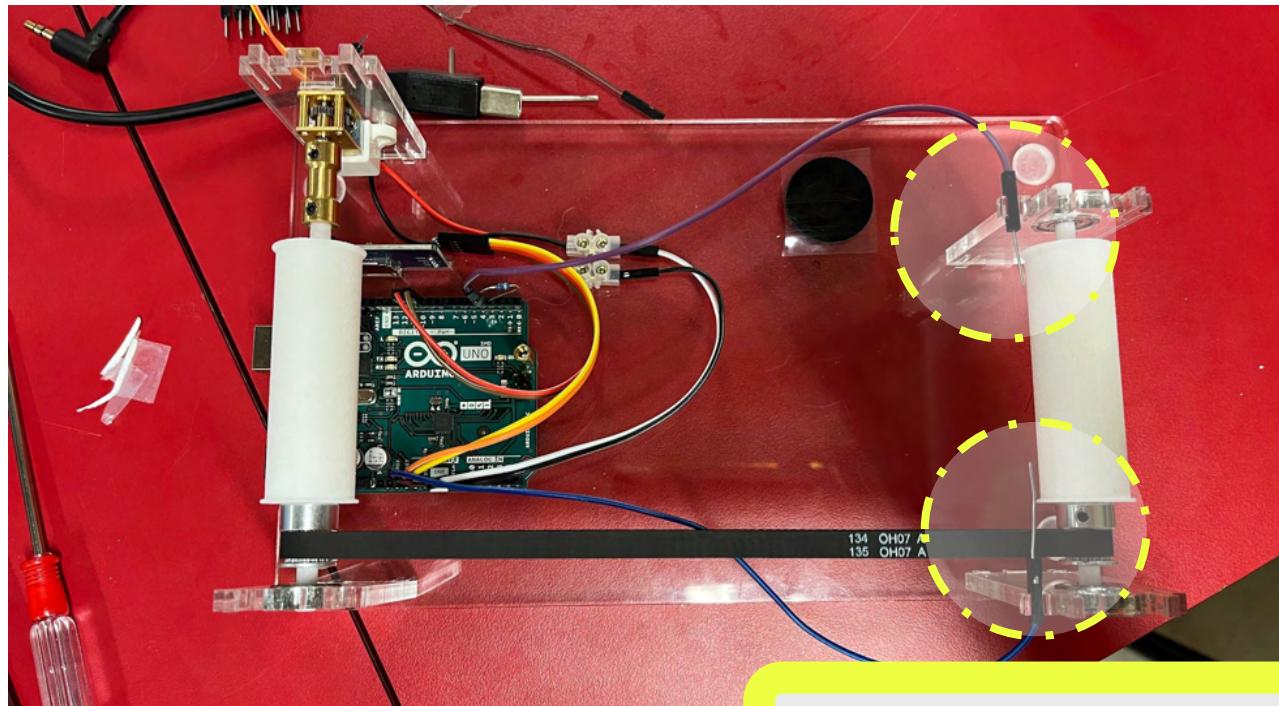
記得把同步帶放到同步輪的位置



將3D print的位置調節, 與軸承並排

把最後一塊亞加力膠支架安裝, 並把
3D print滾軸穿入軸承

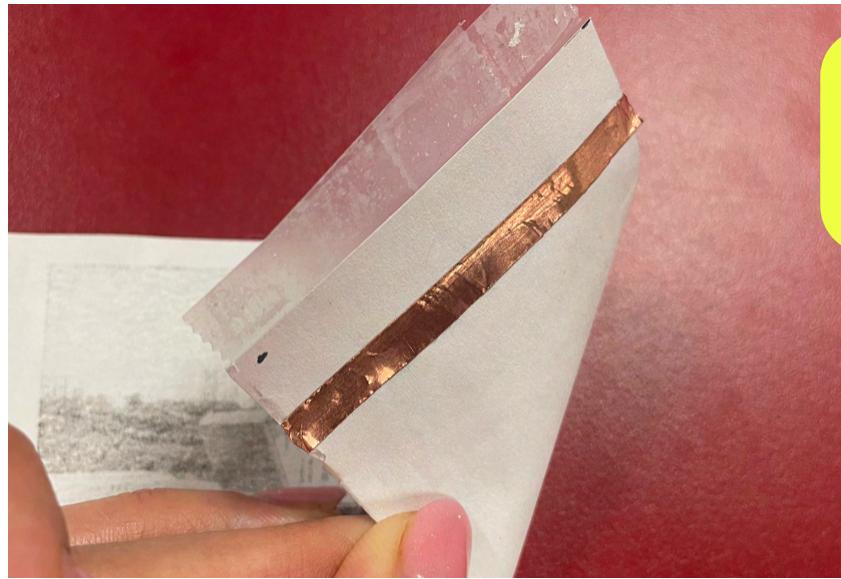
Step 25



將arduino上帶有導電引線的杜邦線卡在小勾上

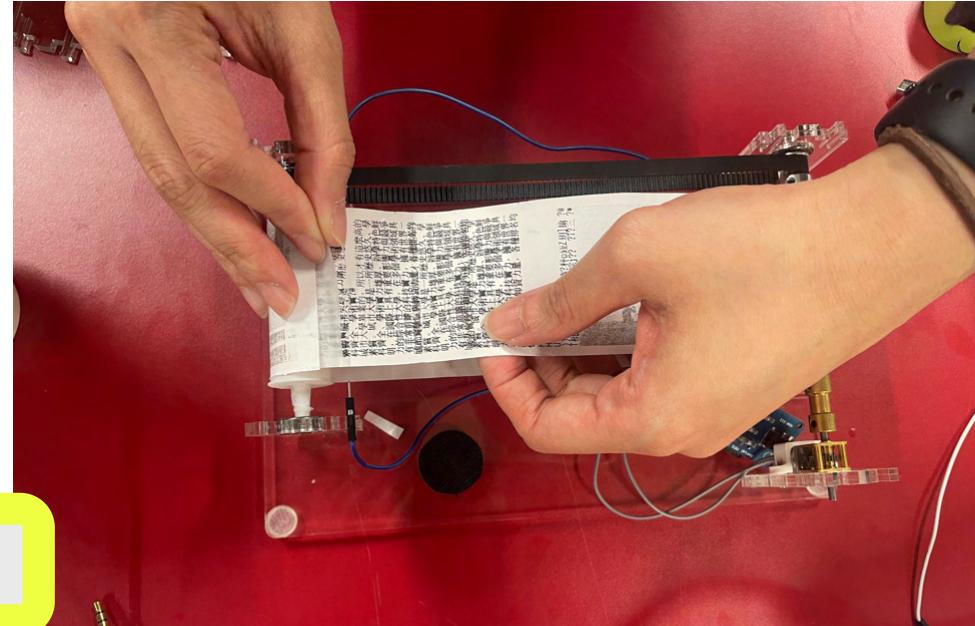
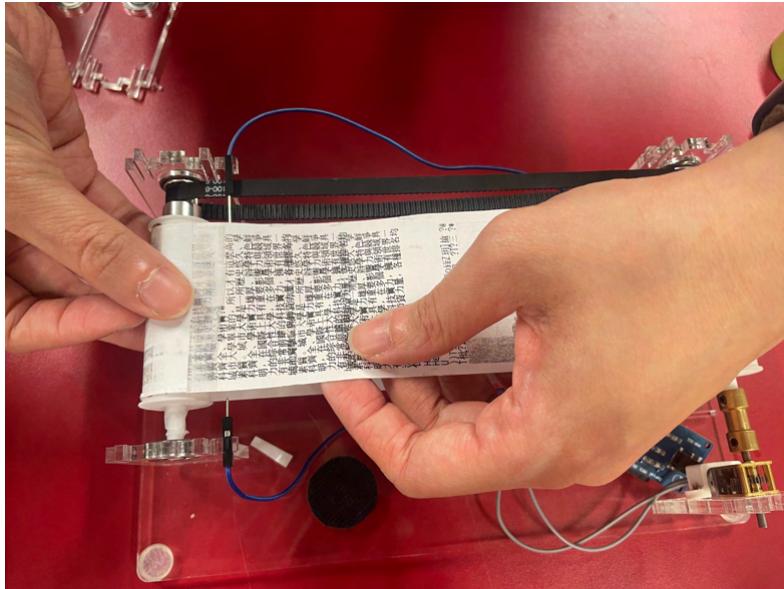
試通電，試喇叭

Step 26



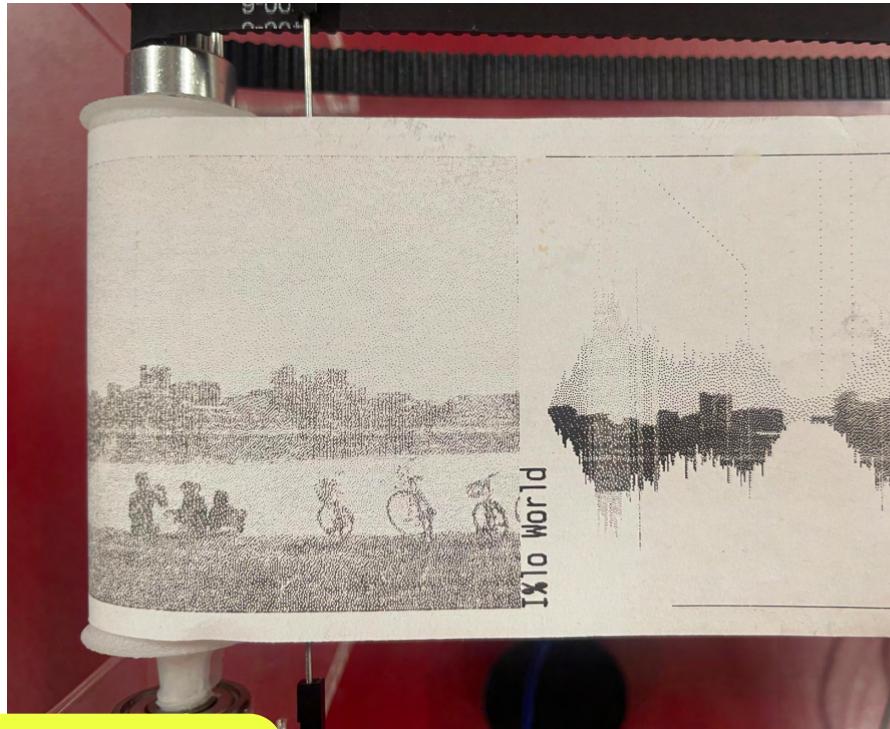
在0秒界線之前的位置
把導電銅箔膠帶貼到紙的背面

Step 27



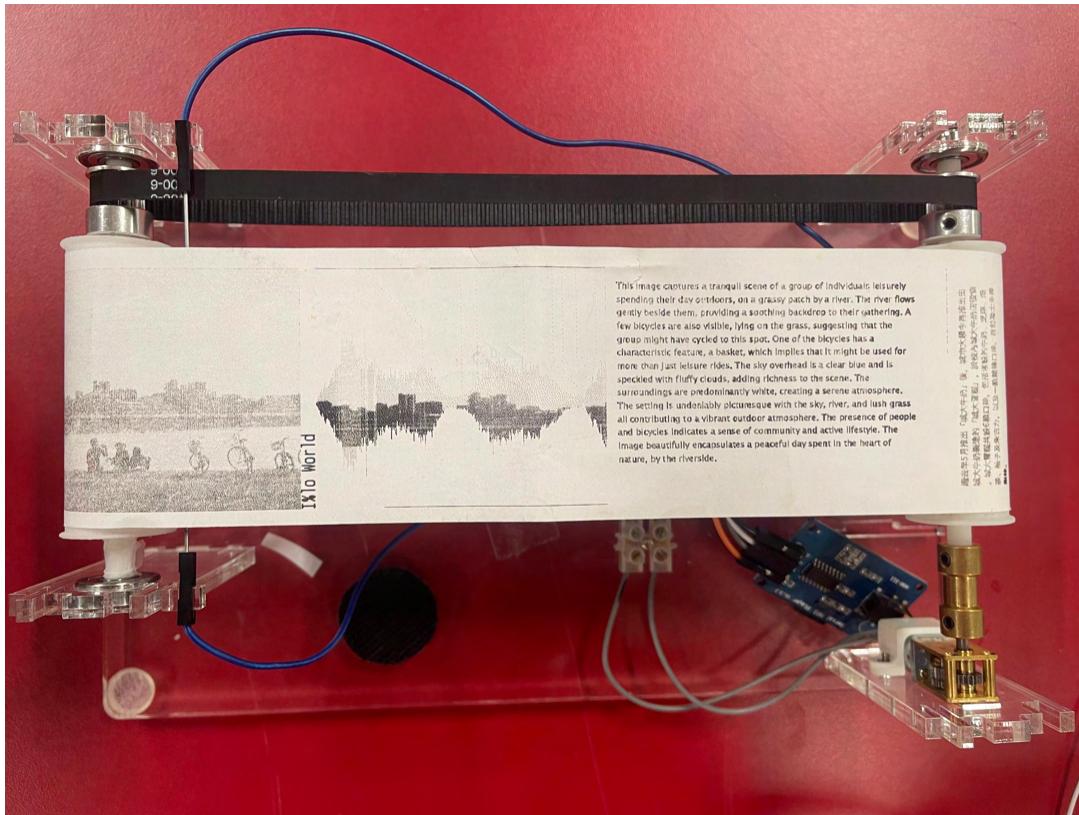
小心黏貼，如果膠紙過長，請用剪刀剪走

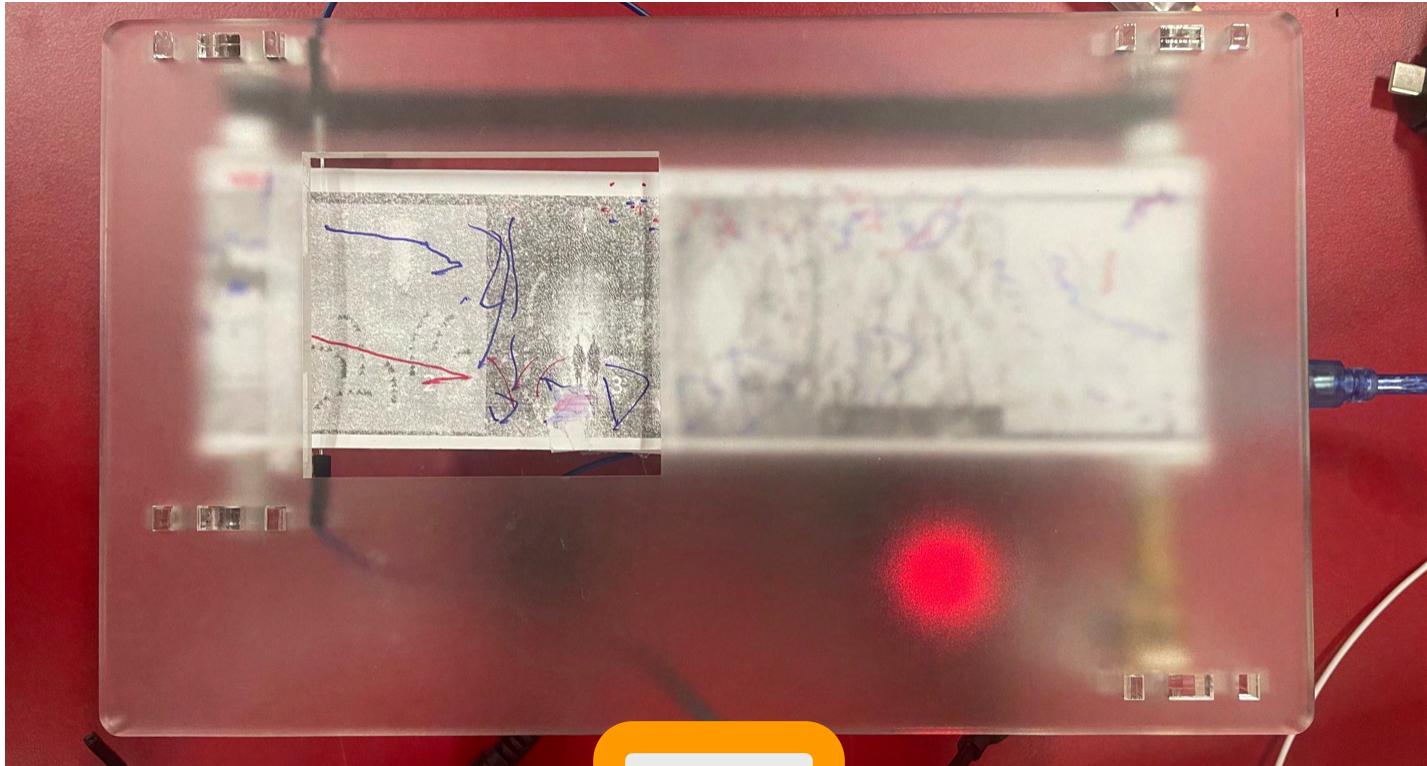
Step 28



確保兩個導電部分在
紙的底下

檢查





完成



香港城市大學
City University of Hong Kong