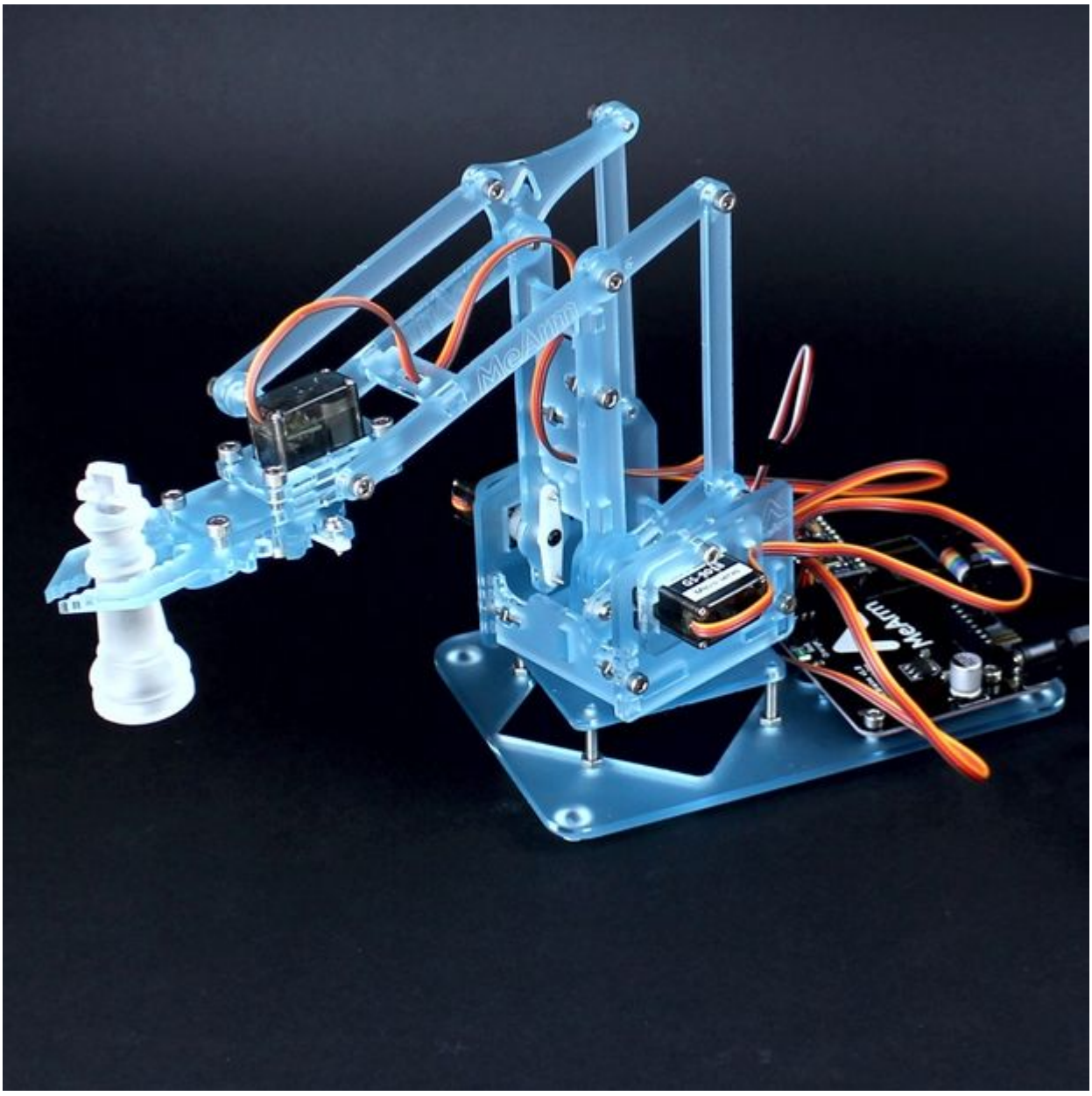
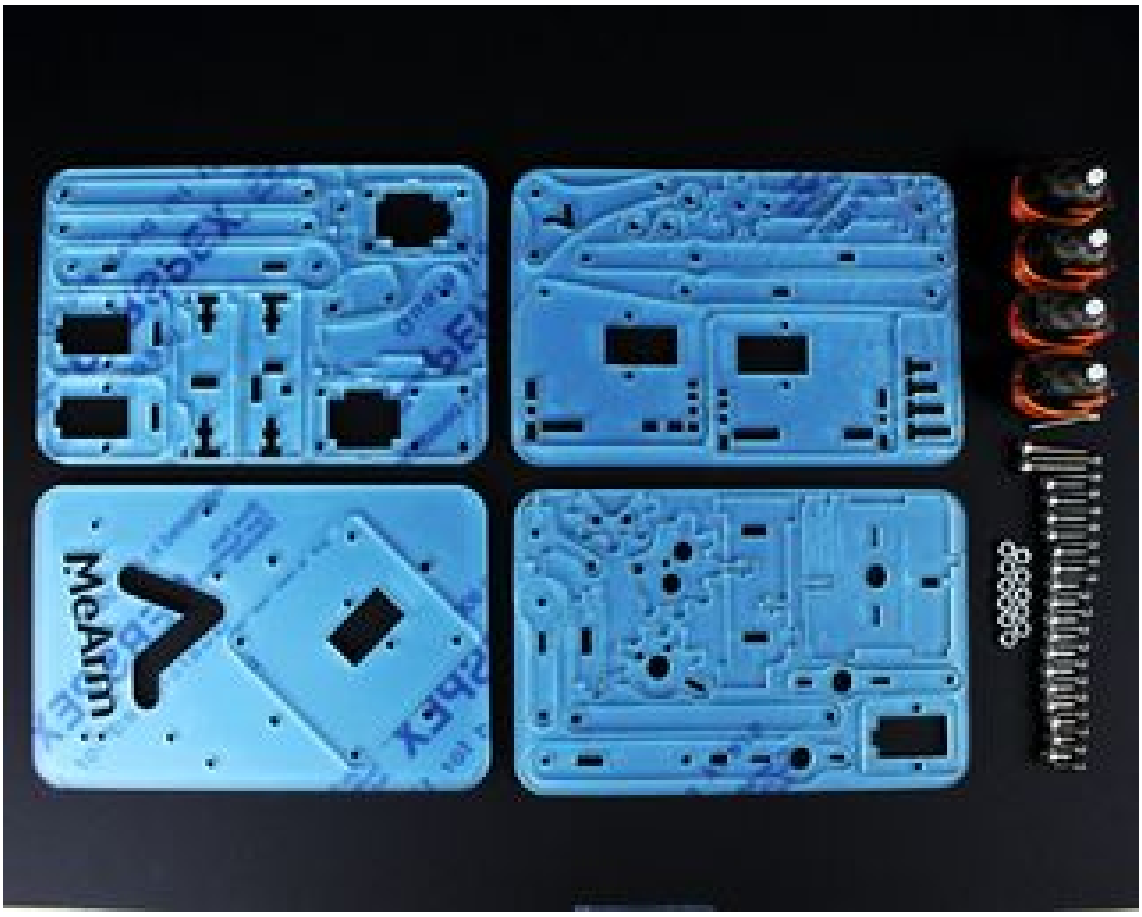
MeArm 機械臂安裝（V1.0 版）

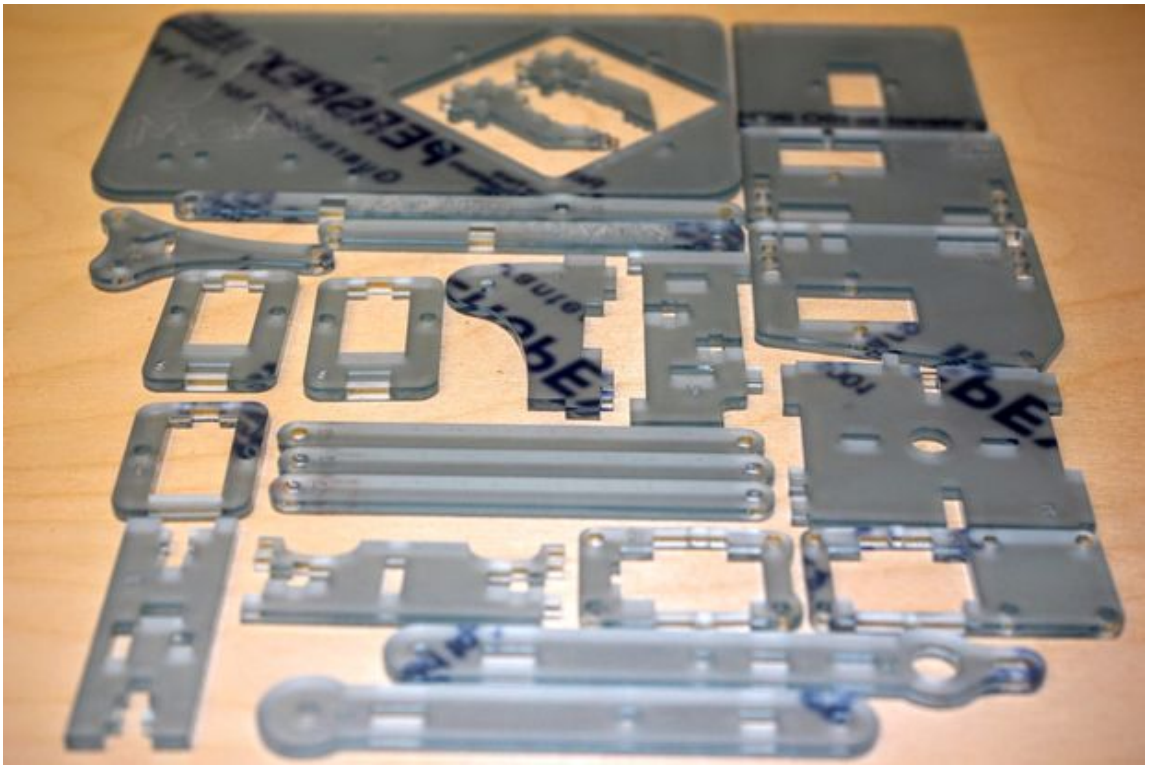
傑森創工坊 JMaker Workshop 整理

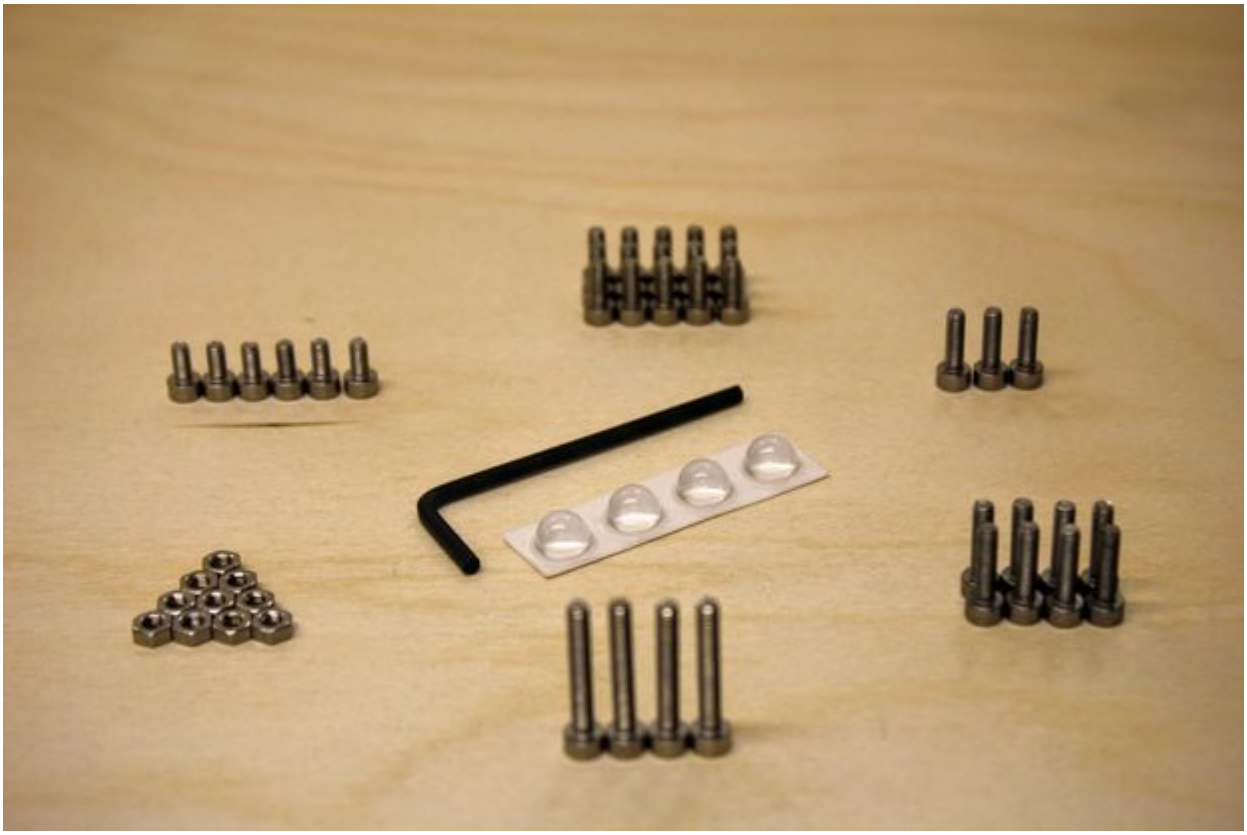


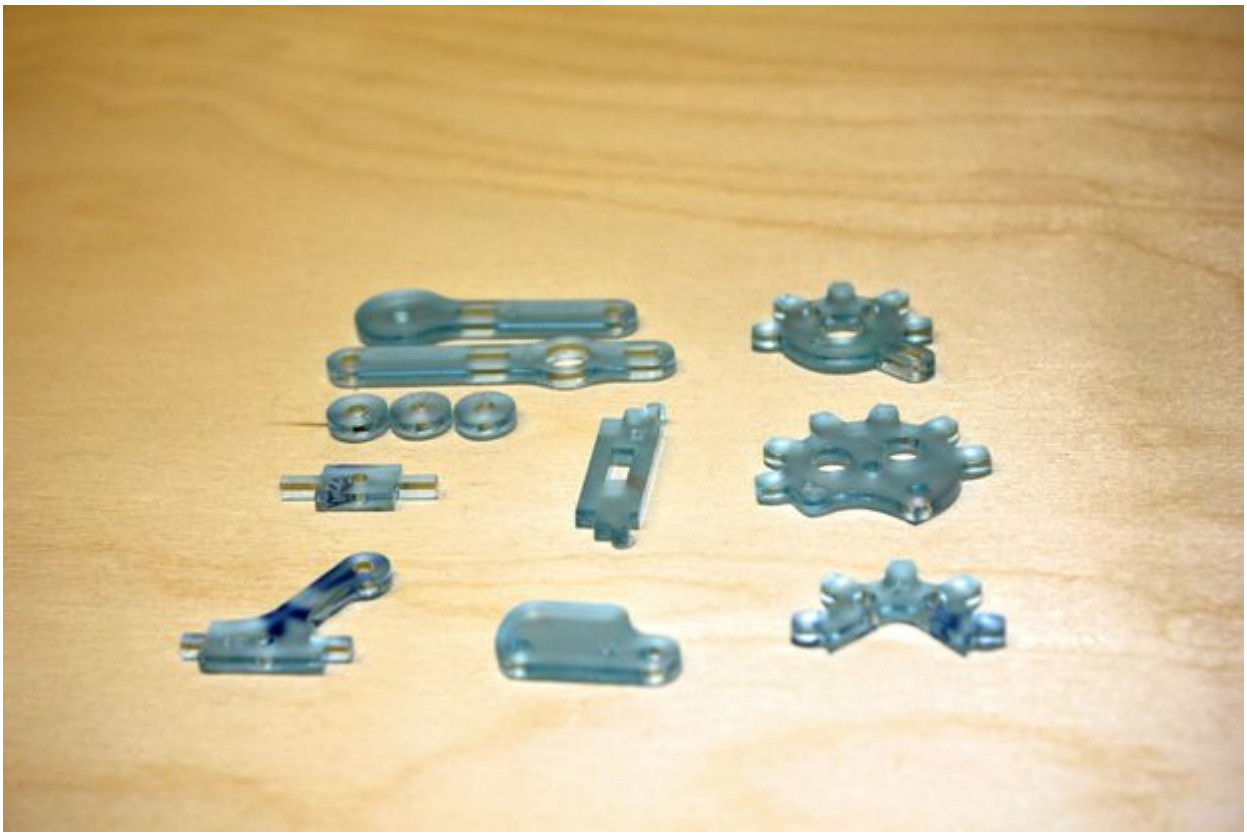


我們將在這裡介紹最新版 MeArm V1.0 機械臂的安裝方法。

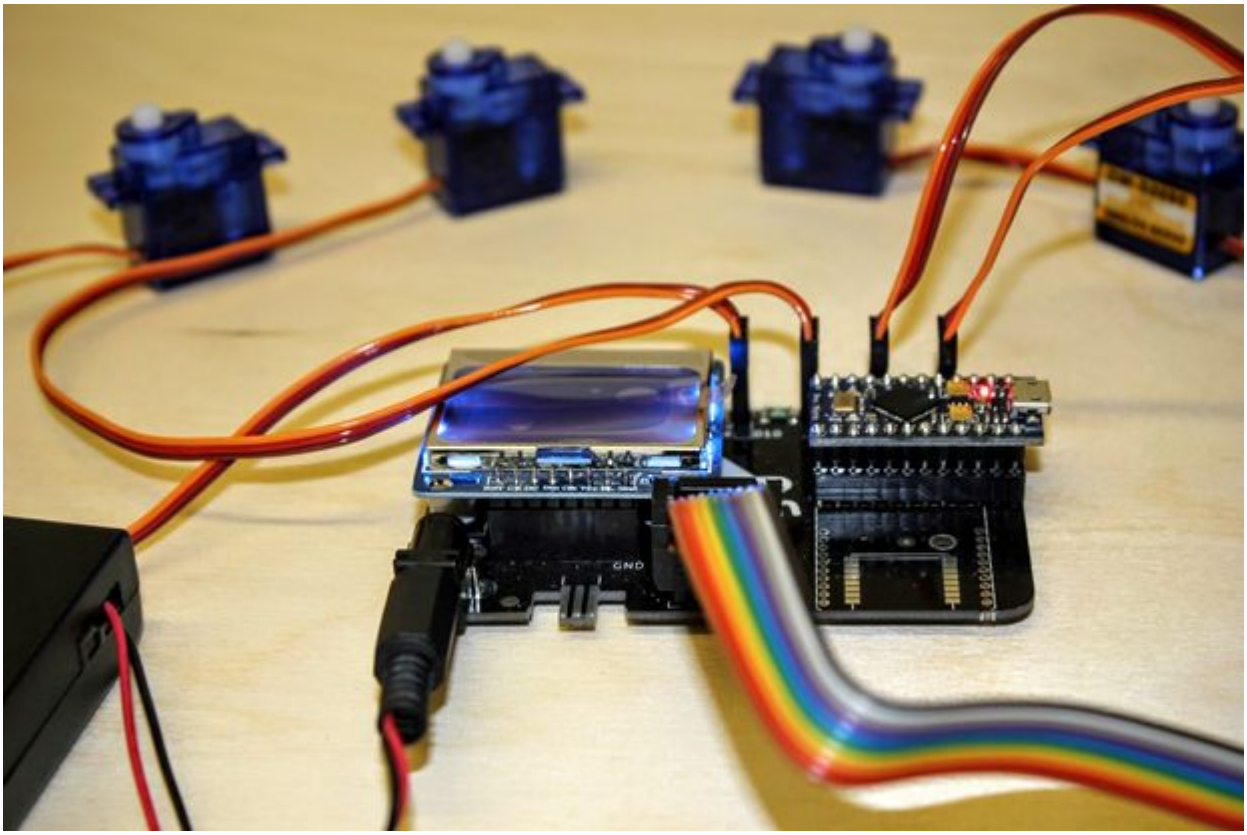
Step 1: 先把零件擺一擺!

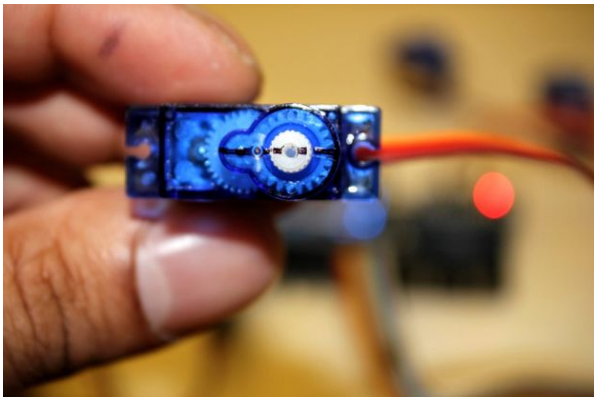


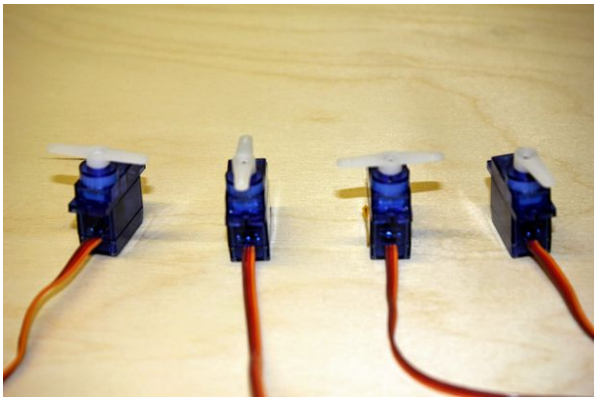


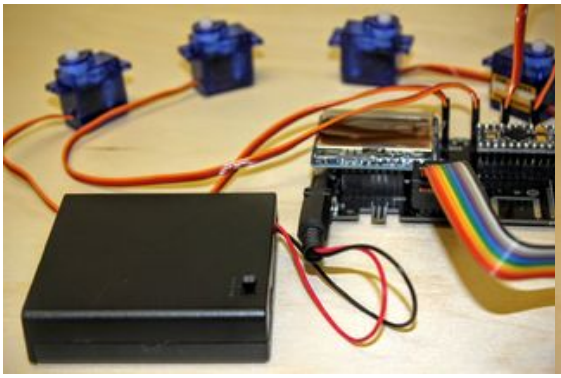


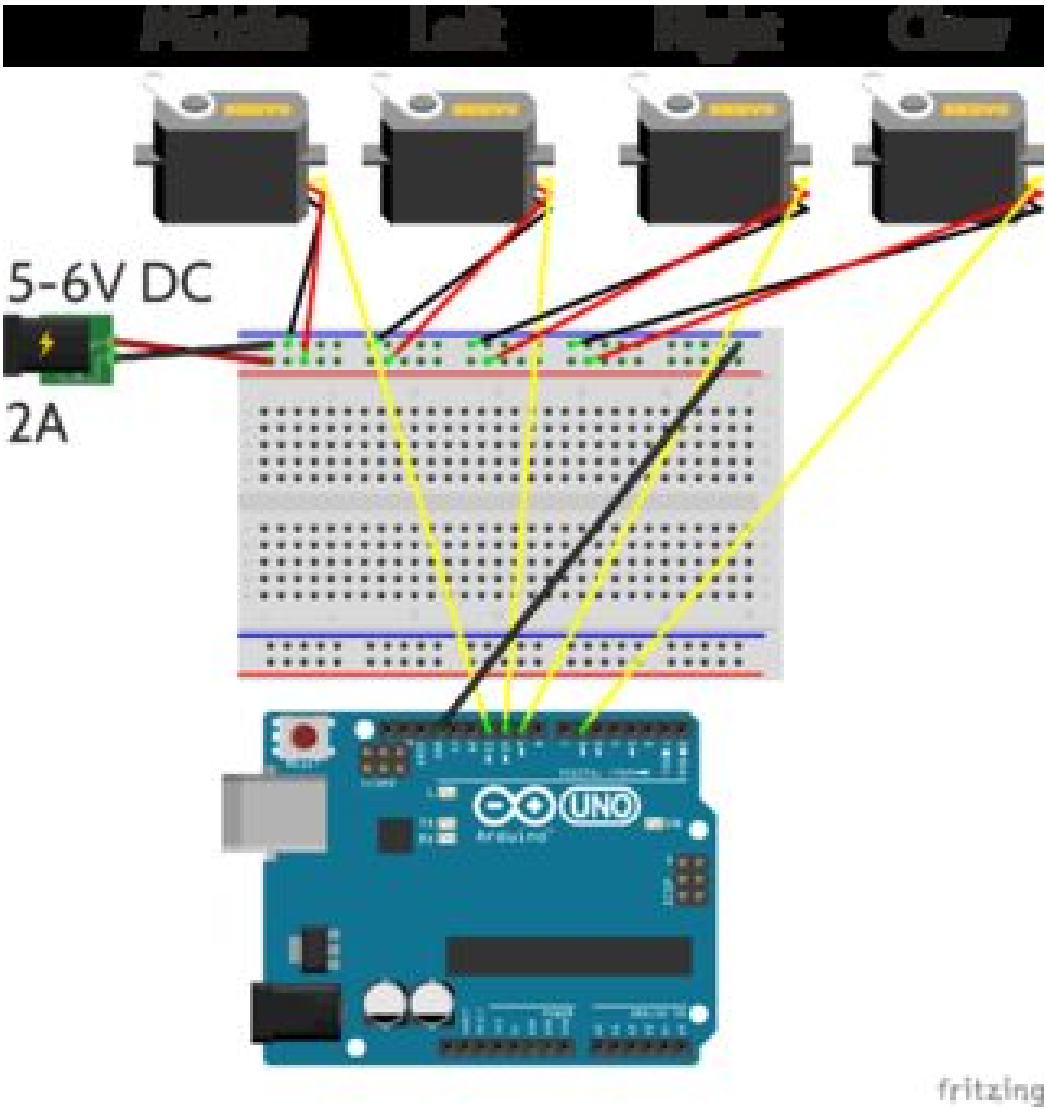
Step 2: 把舵機進行初始化調校


GND



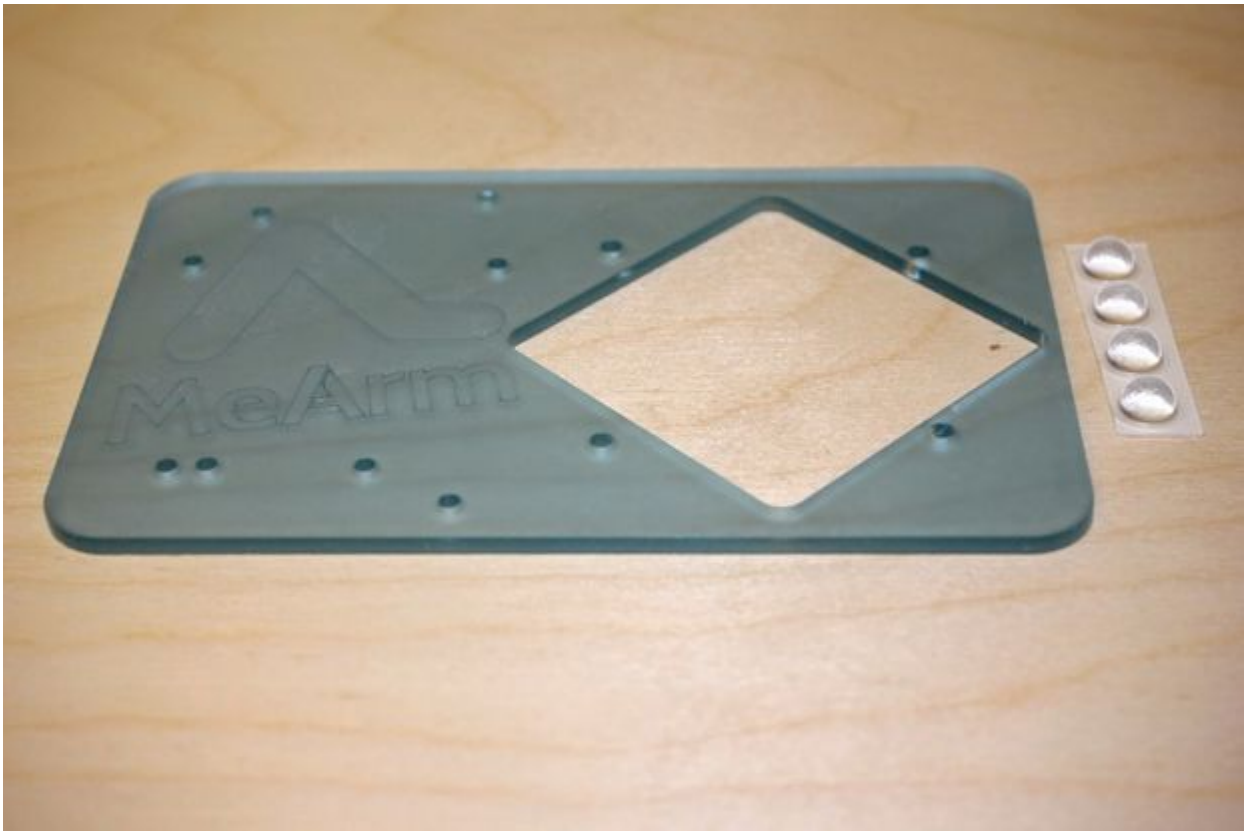


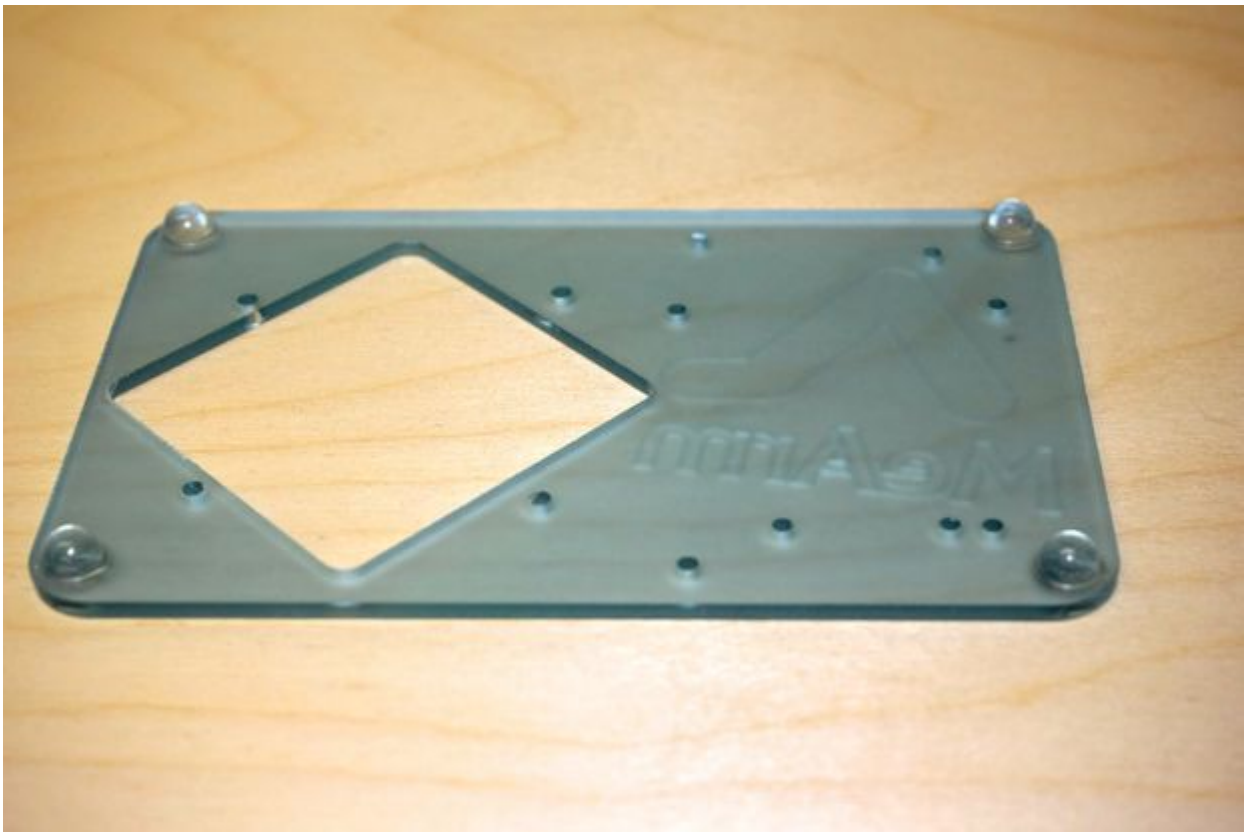


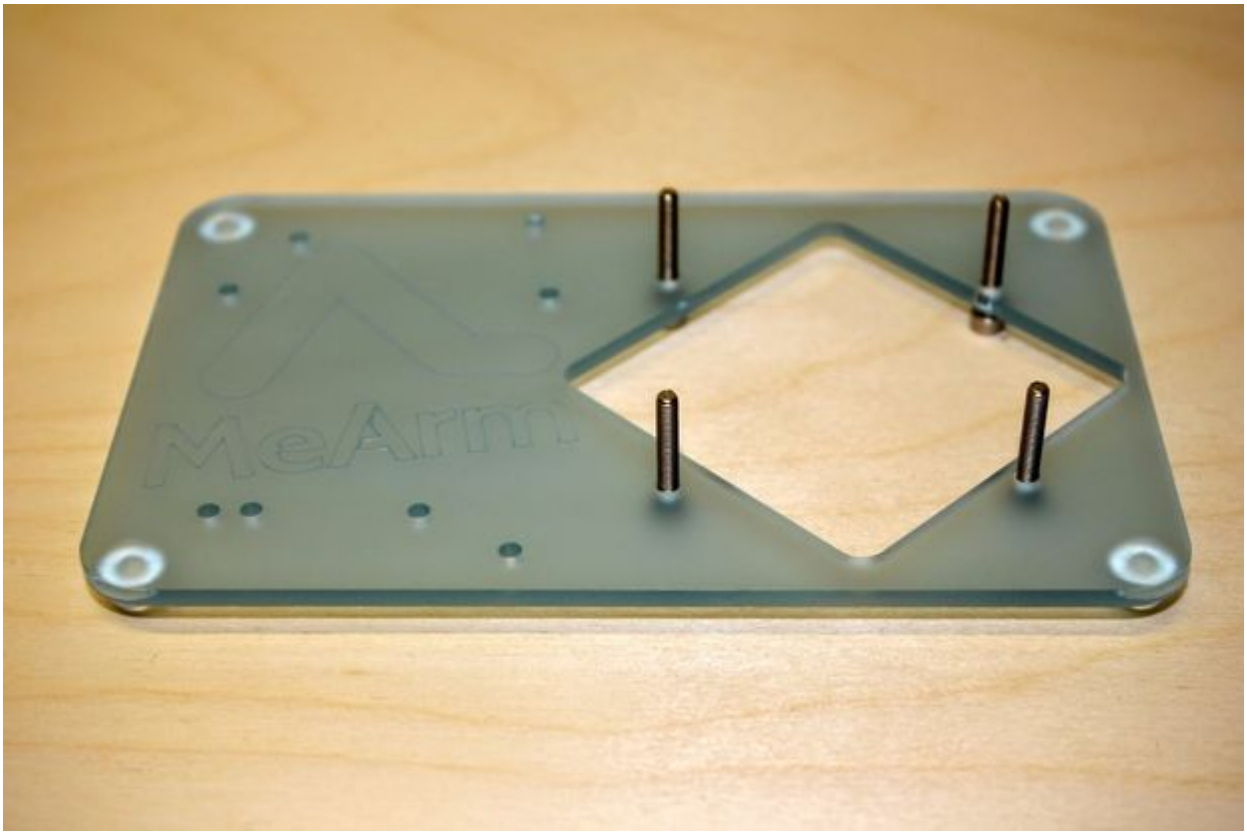


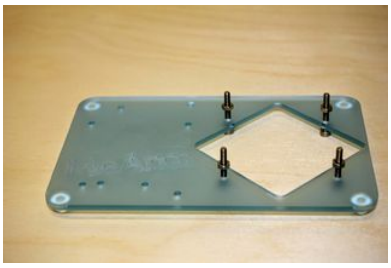
在我們安裝之前，需要對舵機做個校對和設置初始角度。舵機通過 PWM 信號控制其旋轉角度，通過Arduino, Raspberry Pi, Beaglebone Black, Sparkcore 或者 Espruino 都可以對舵機進行控制。4 個舵機對應底座、左邊、右邊、鉗爪的初始角度分別為 90 度、90 度、90 度和 25 度。詳細步驟請看下面。

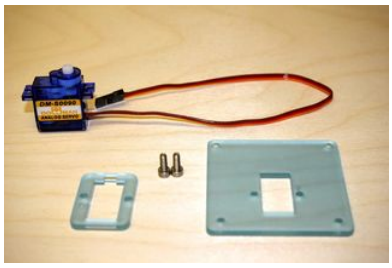
Step 3: 開始

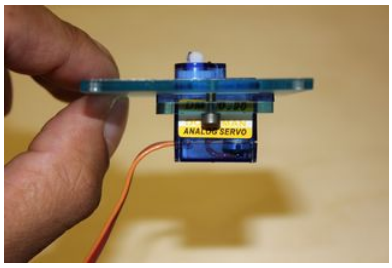

MeArm



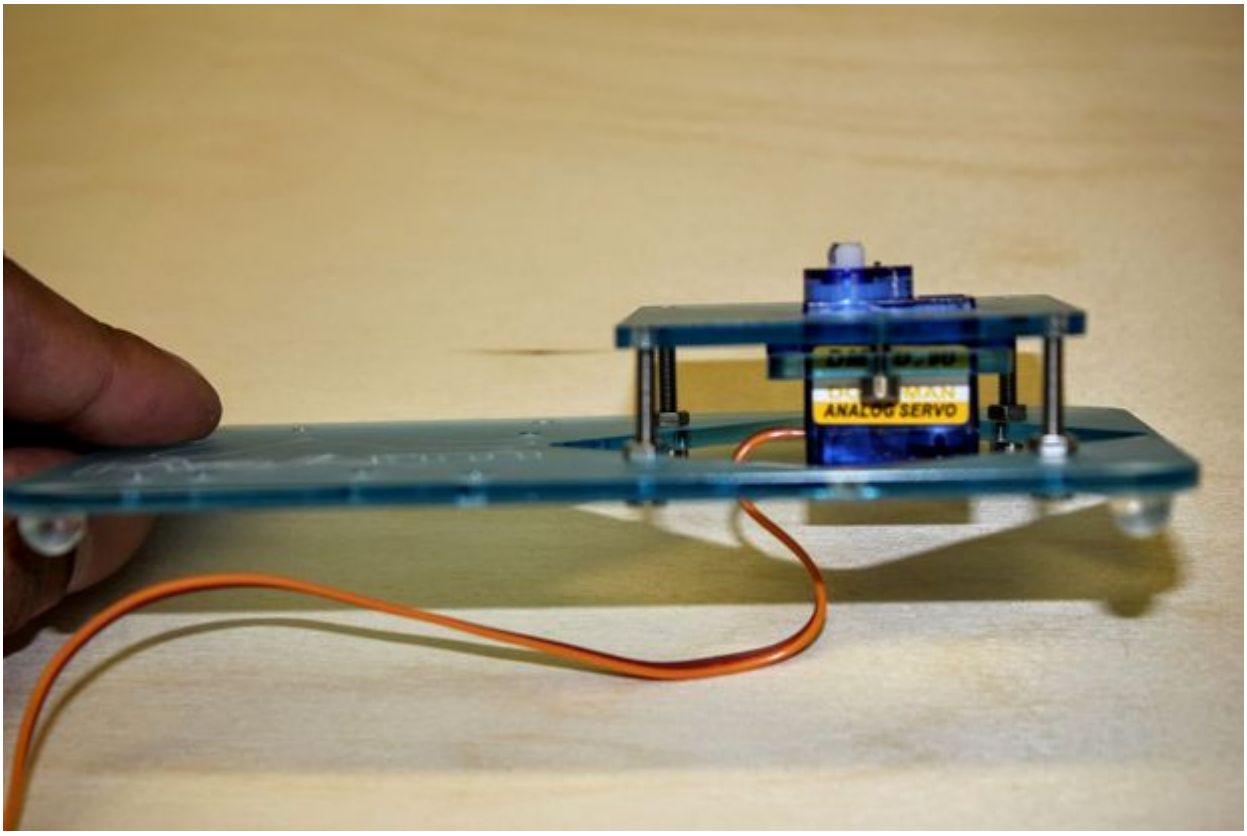


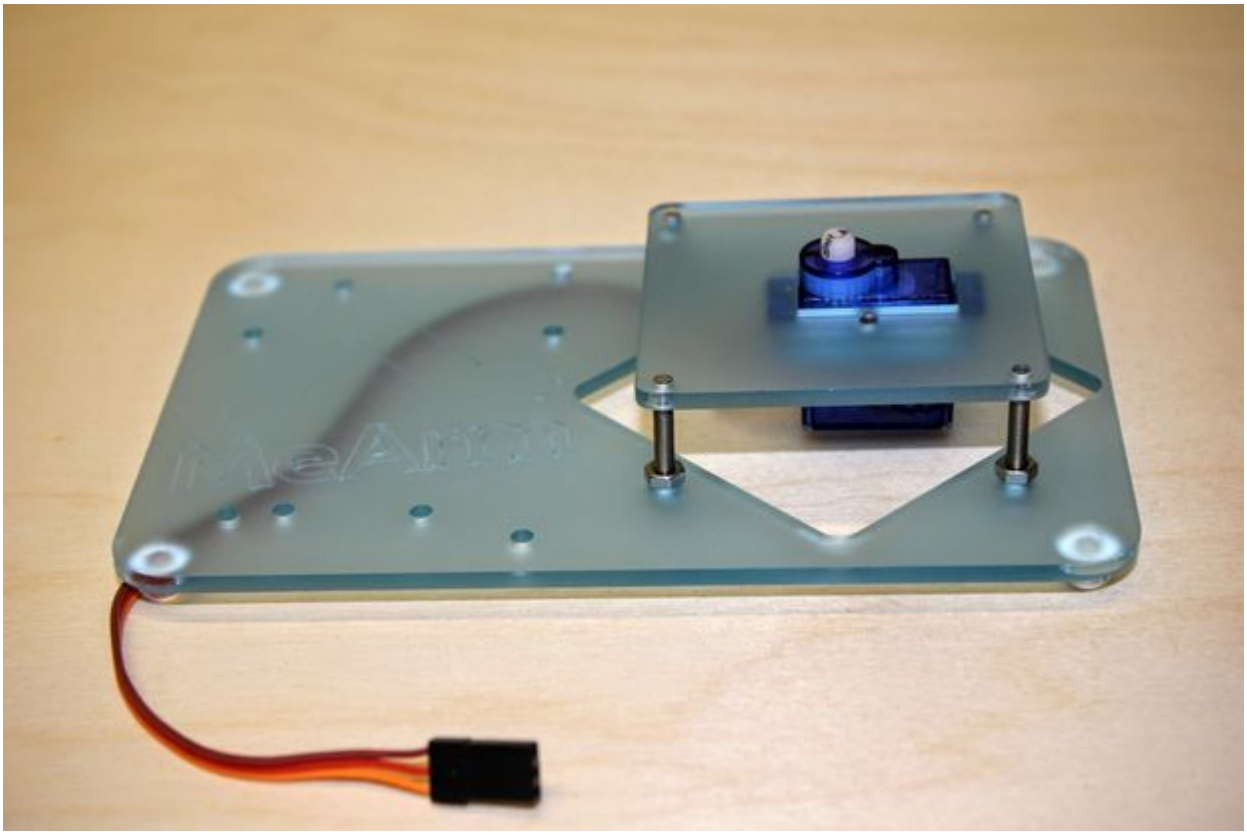






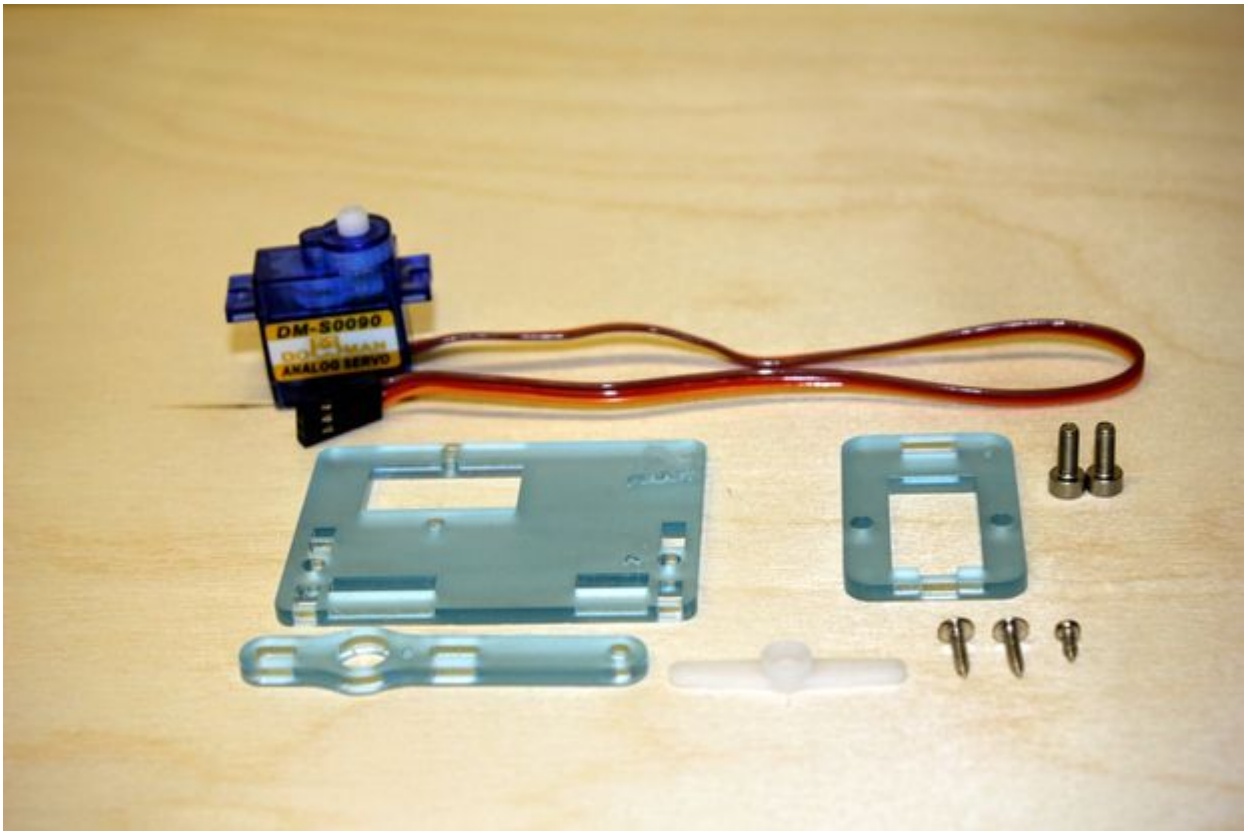
註：舵機角度為 90 度

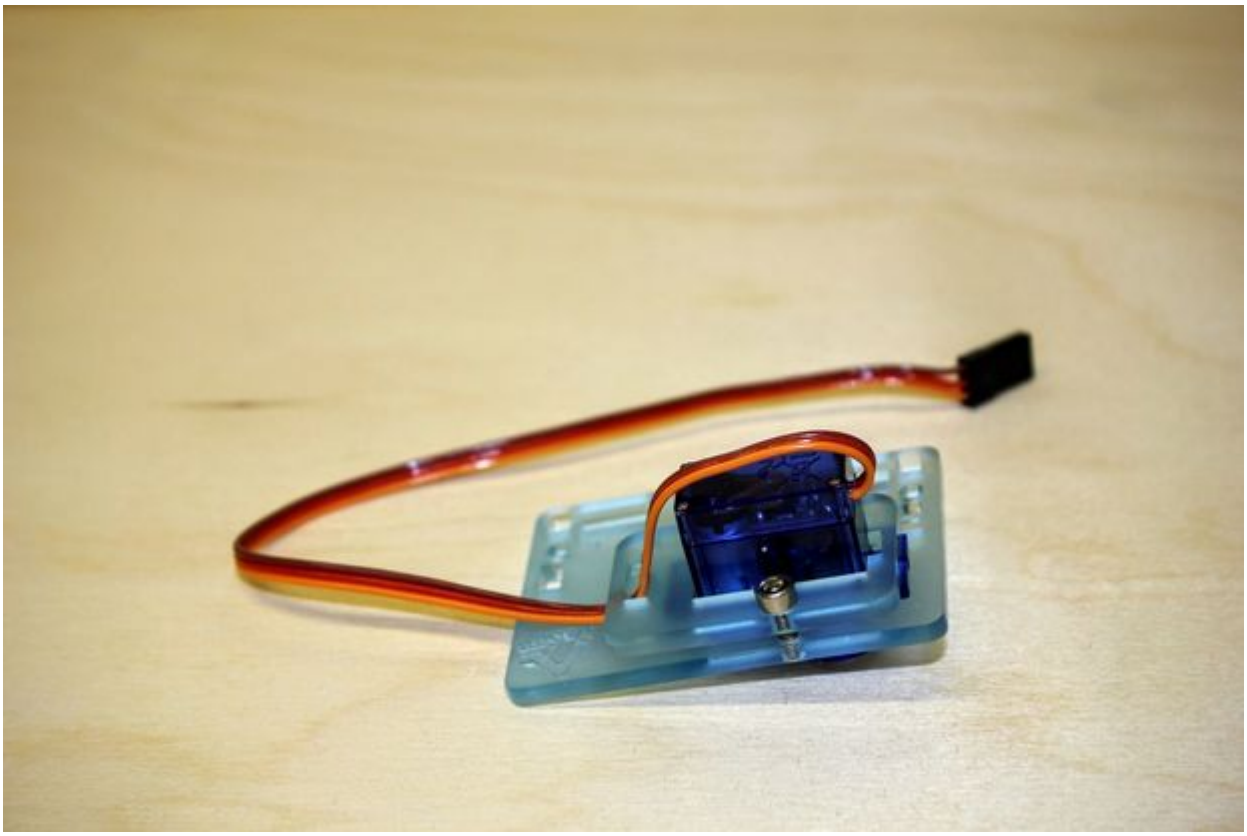


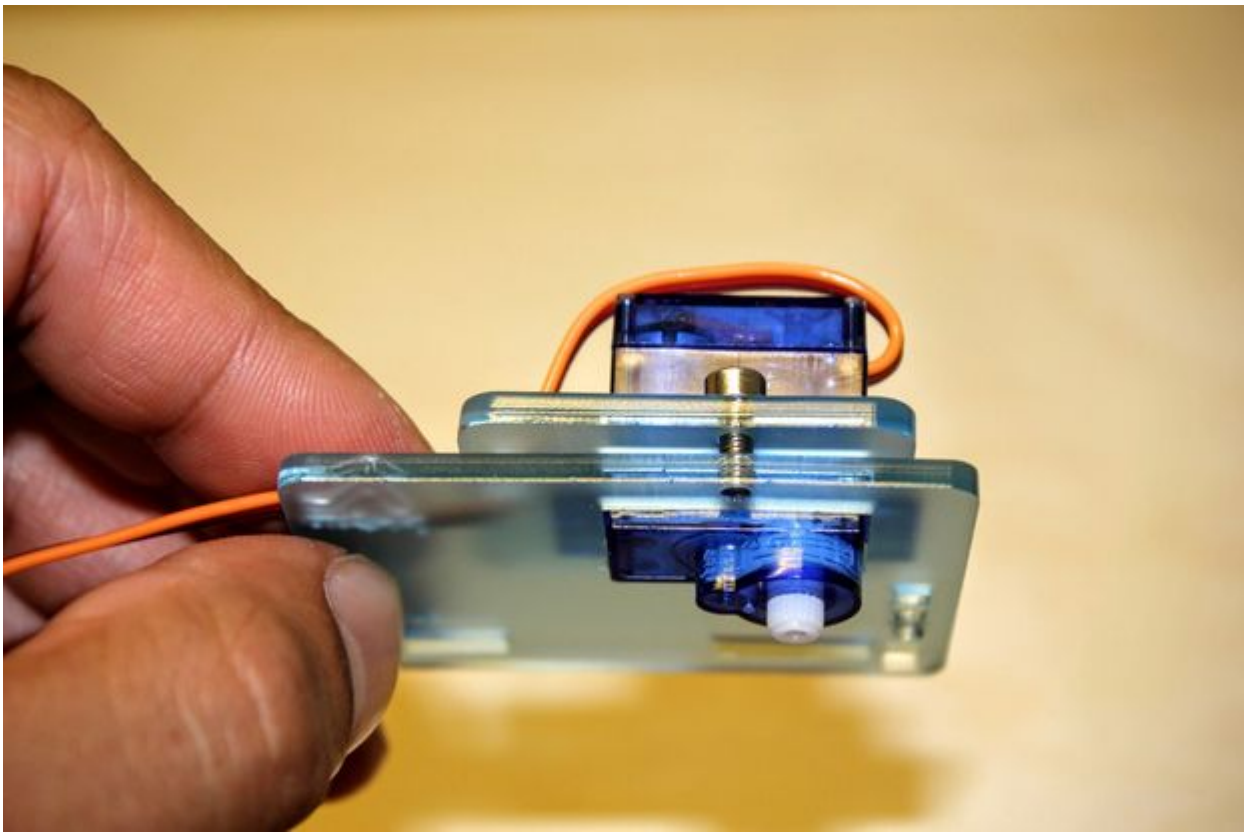


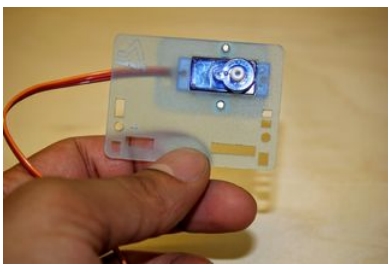
這部分很簡單，根據上圖搭建就好了，需要說明的是：底座的四根螺絲是 20mm 或者 25mm 的螺絲，固定舵機的 2 枚螺絲是 8mm（凡是安裝在舵機兩邊的固定螺絲都選用 8mm 的）。

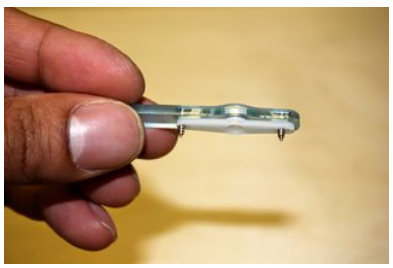
Step 4: 左邊搖臂



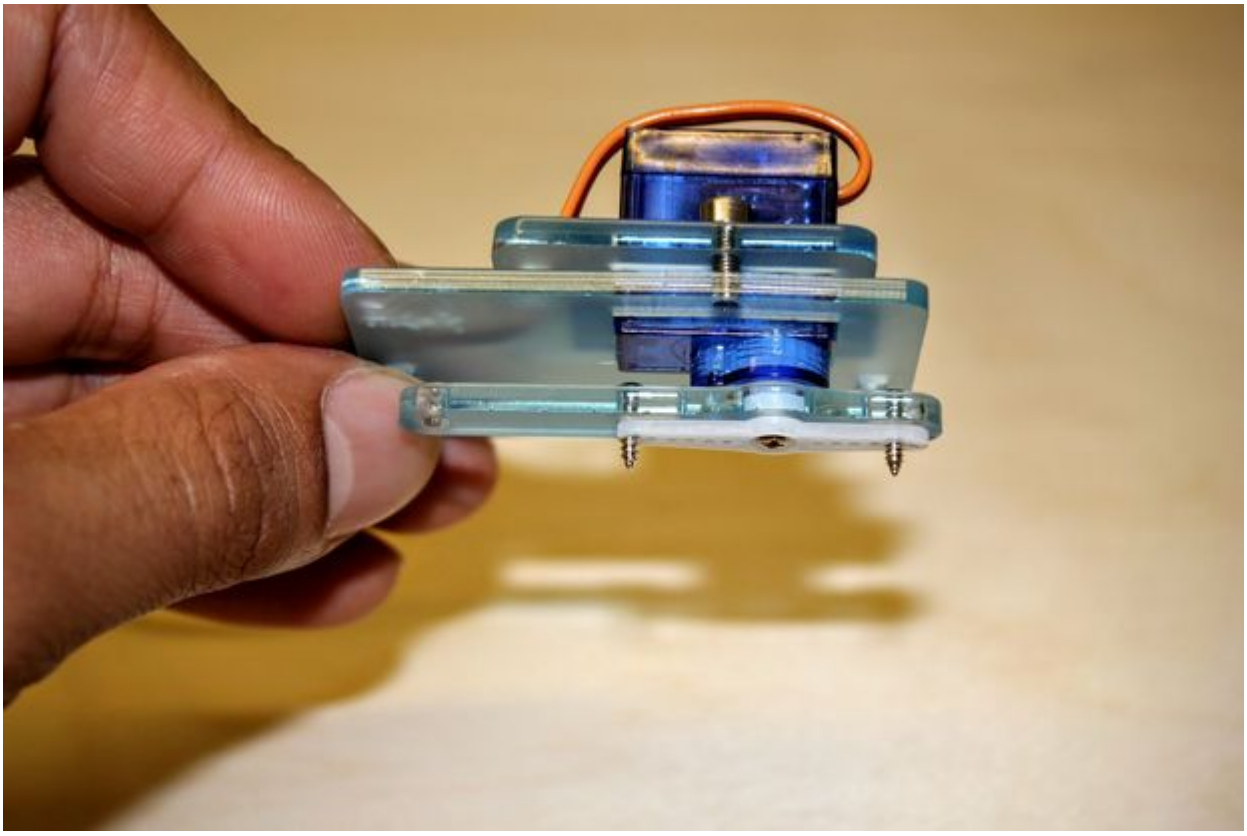


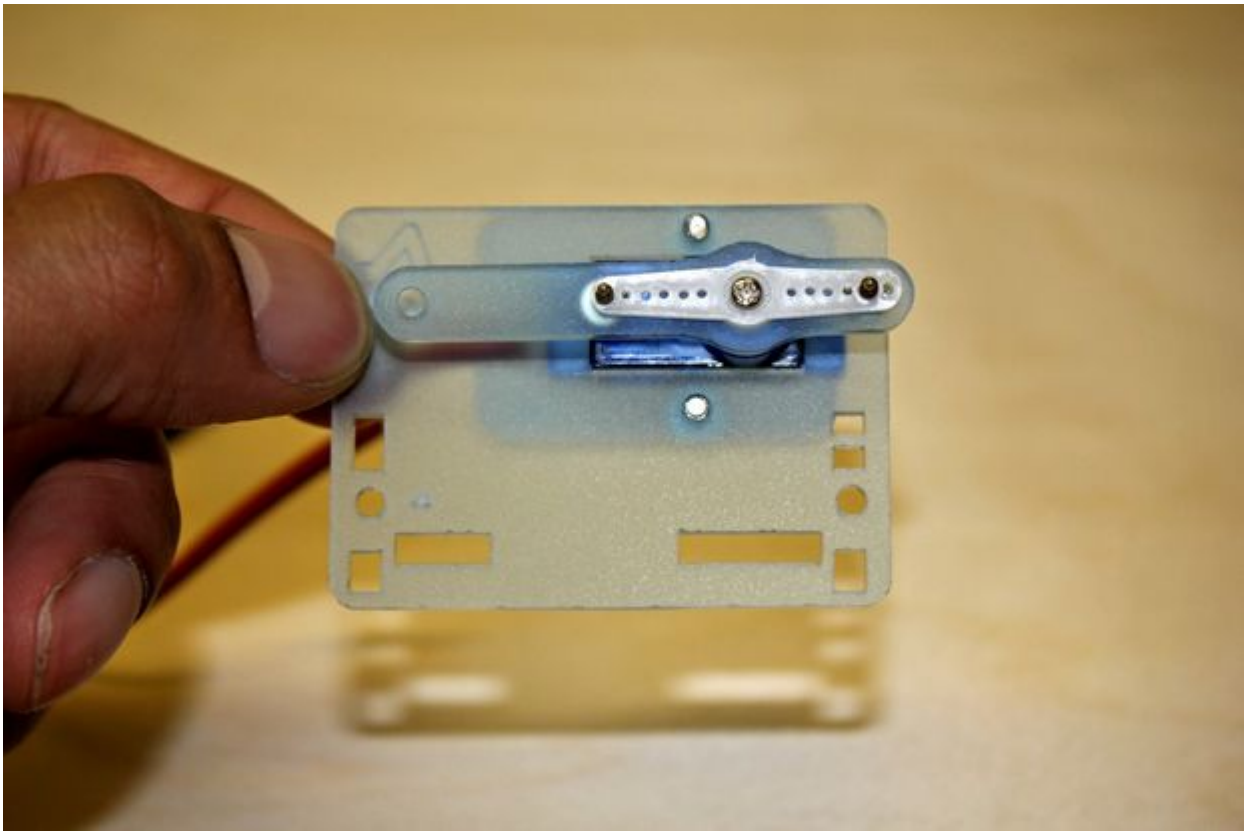




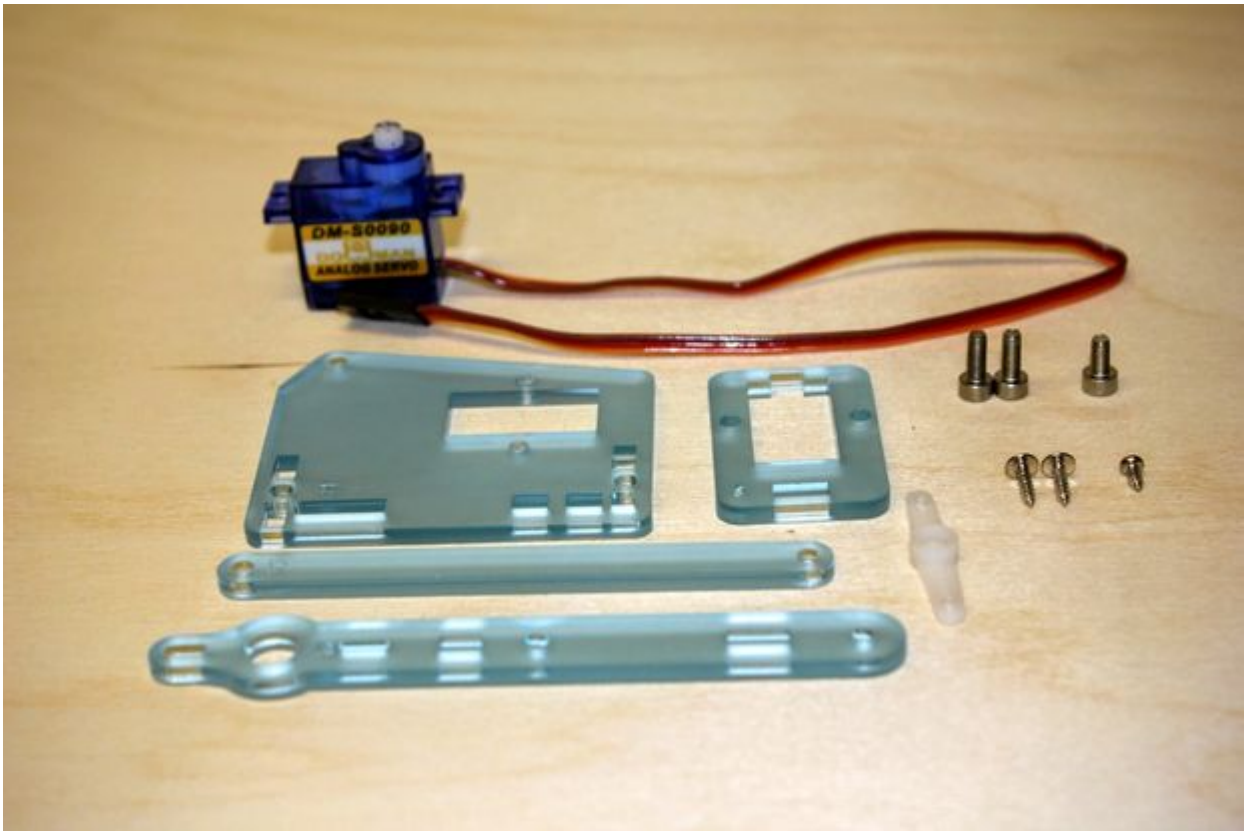


註：舵機初始角度為 90 度





Step 5: 右邊搖臂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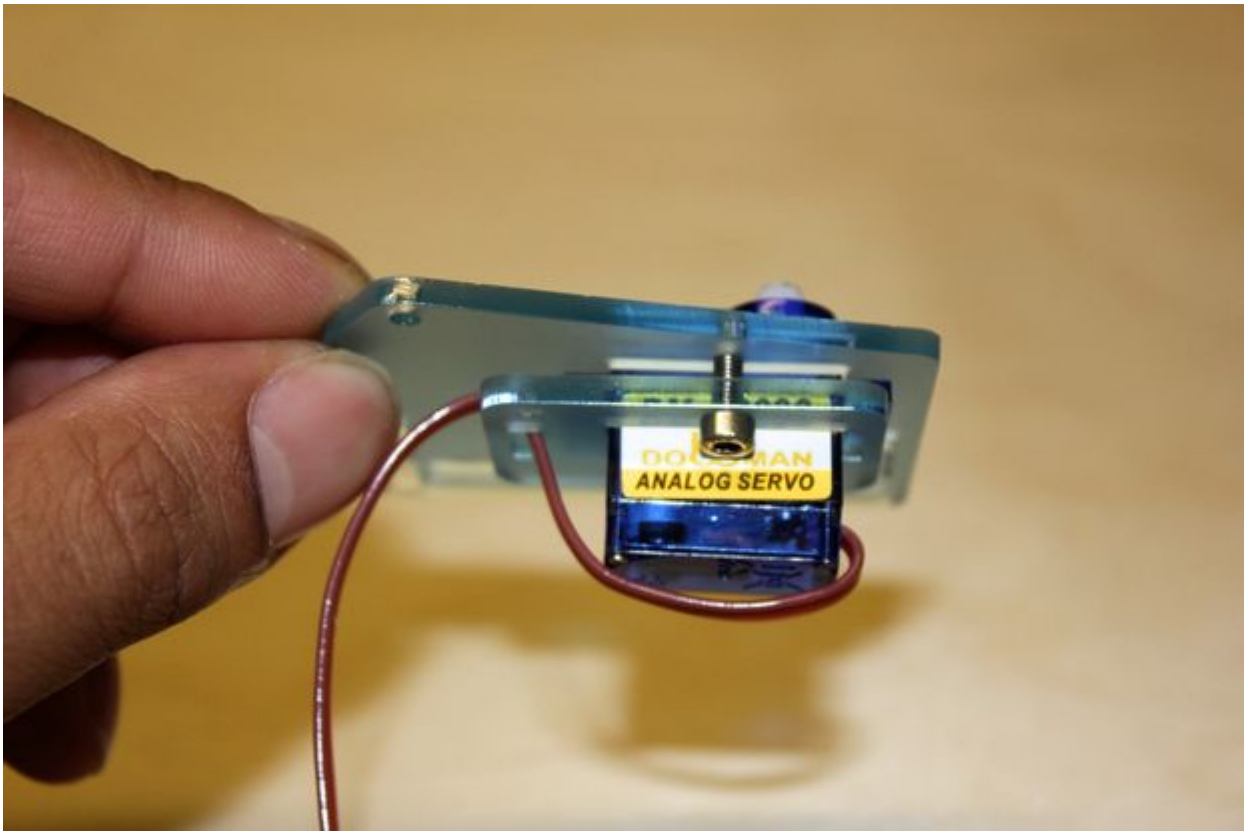
ANALOG SERVO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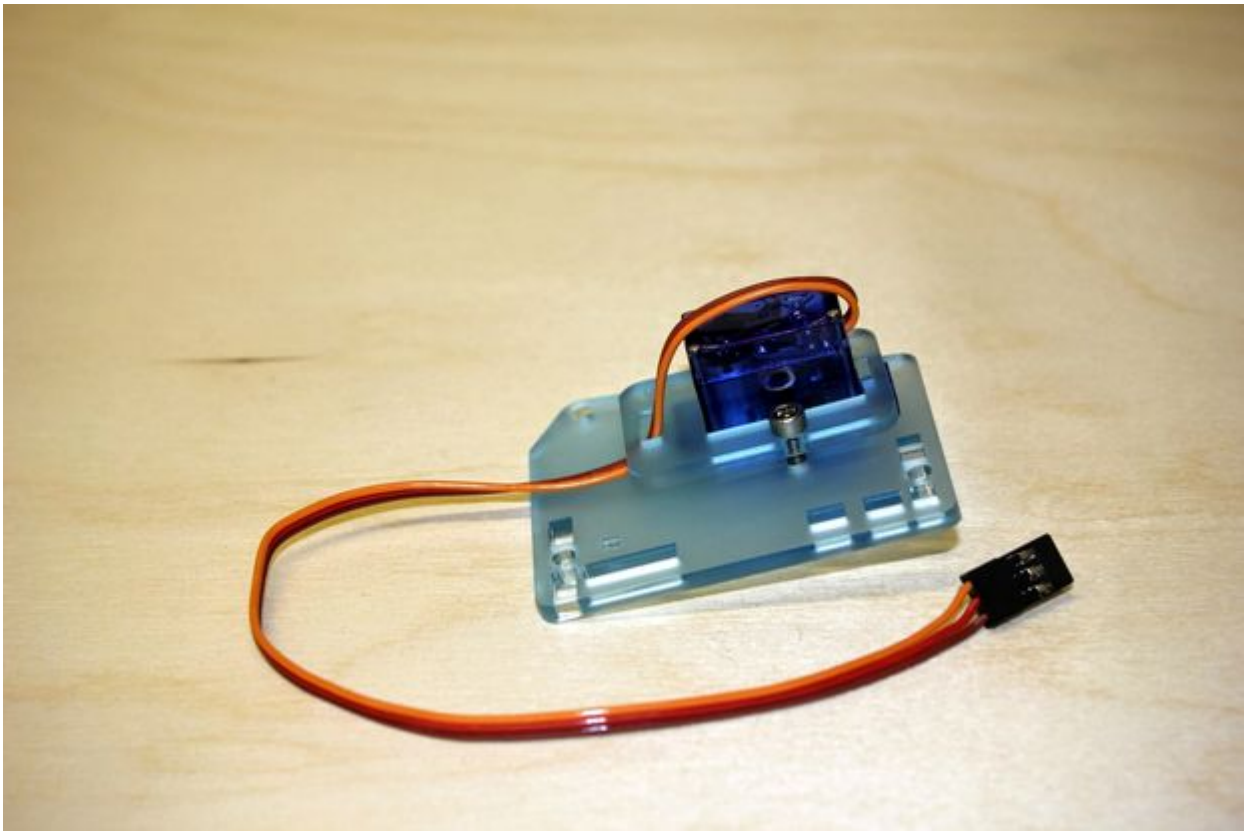
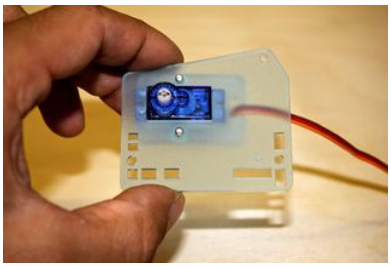
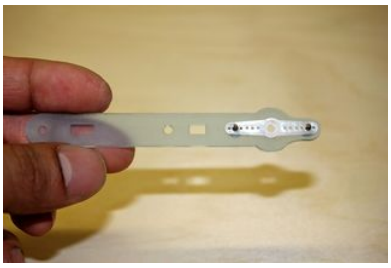
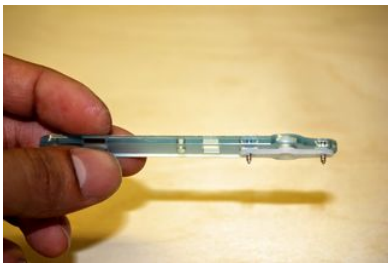
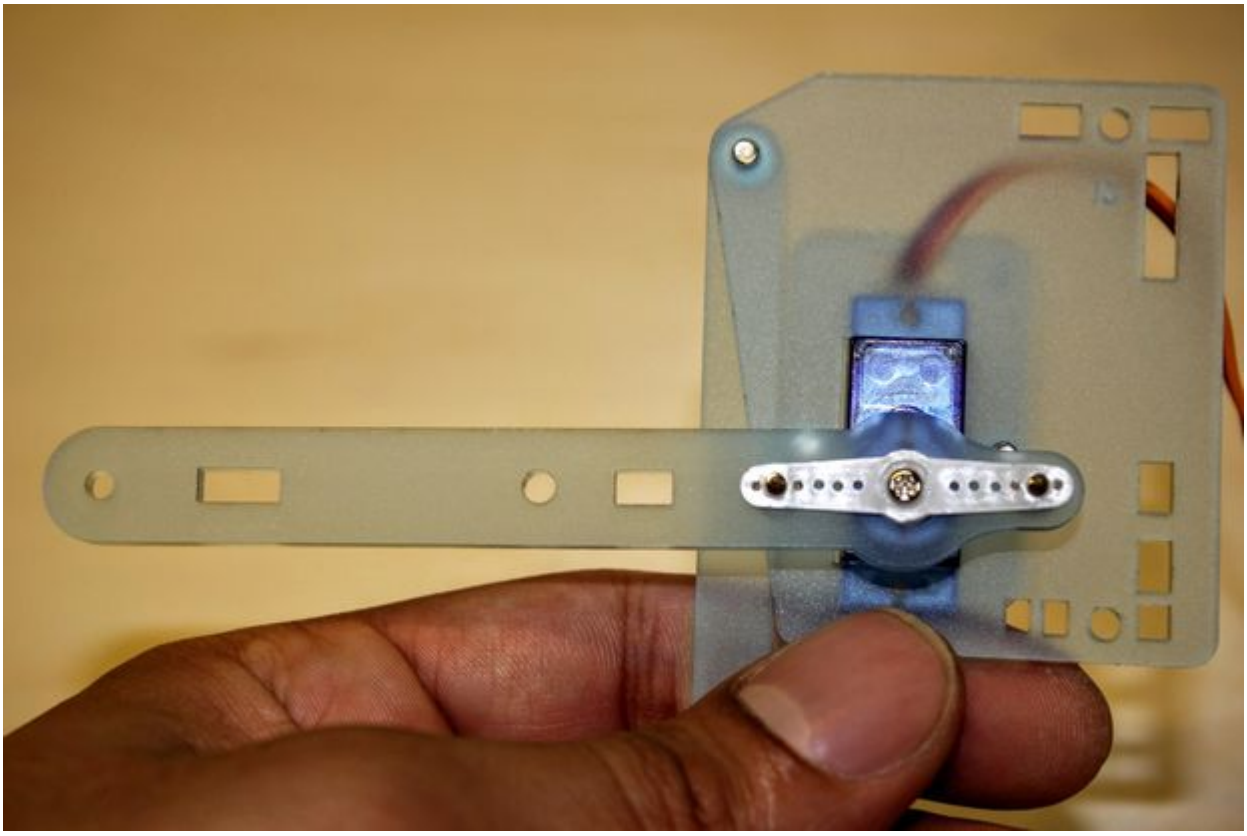




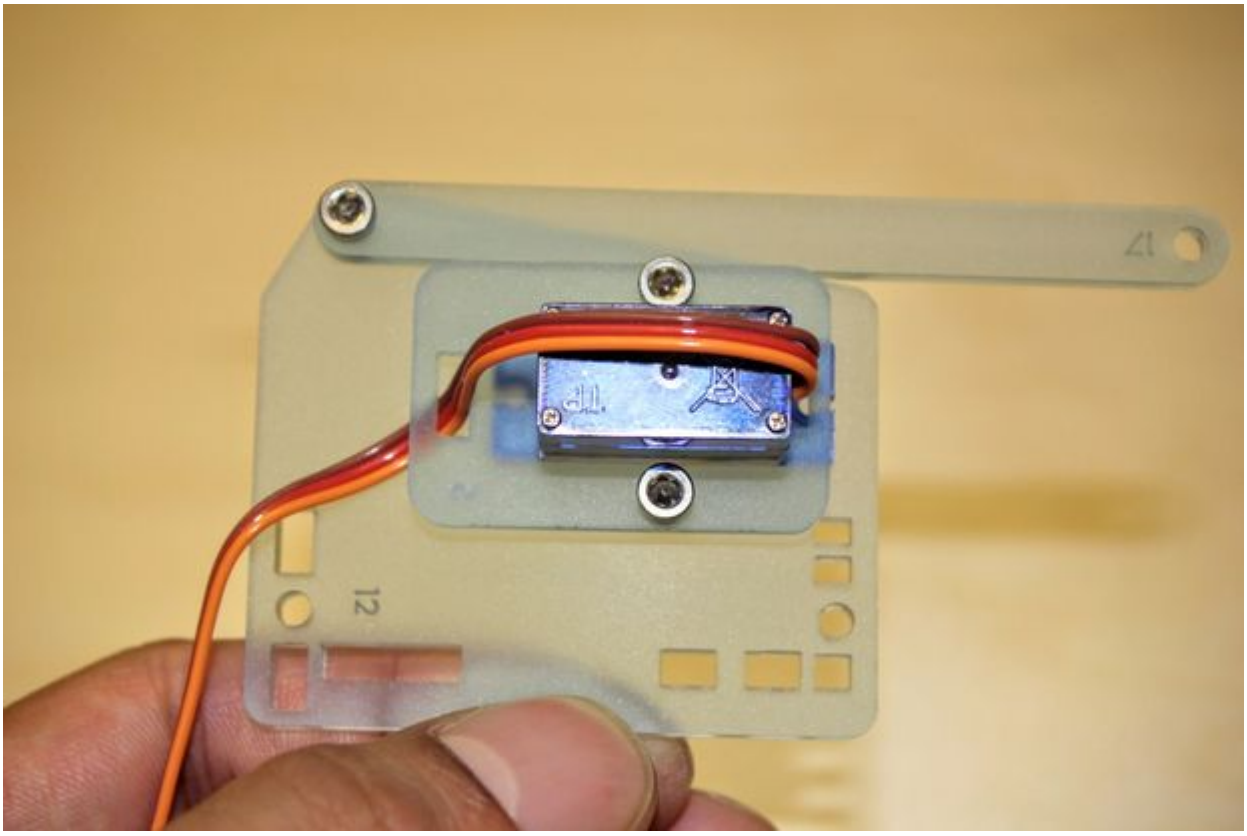




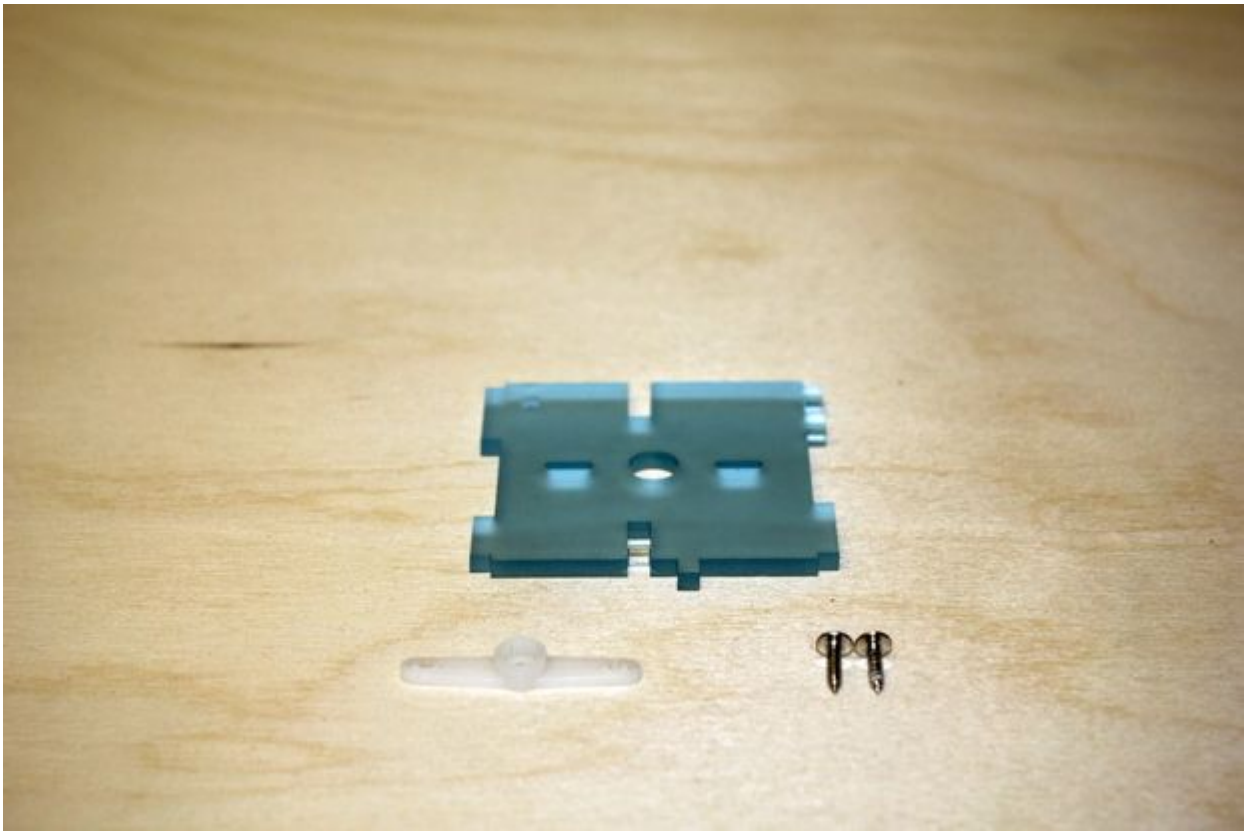
註：參照下圖，舵機要旋轉 90 度，再把搖臂安裝上去。

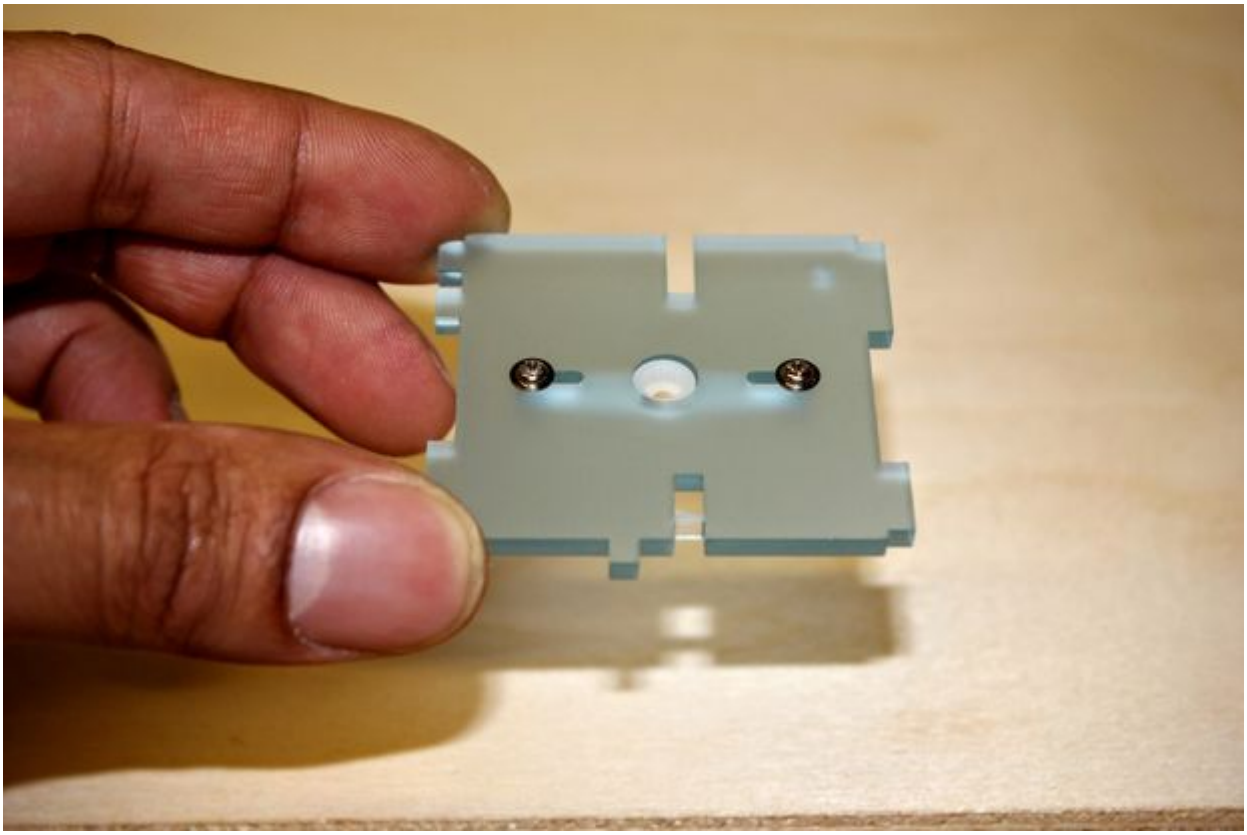


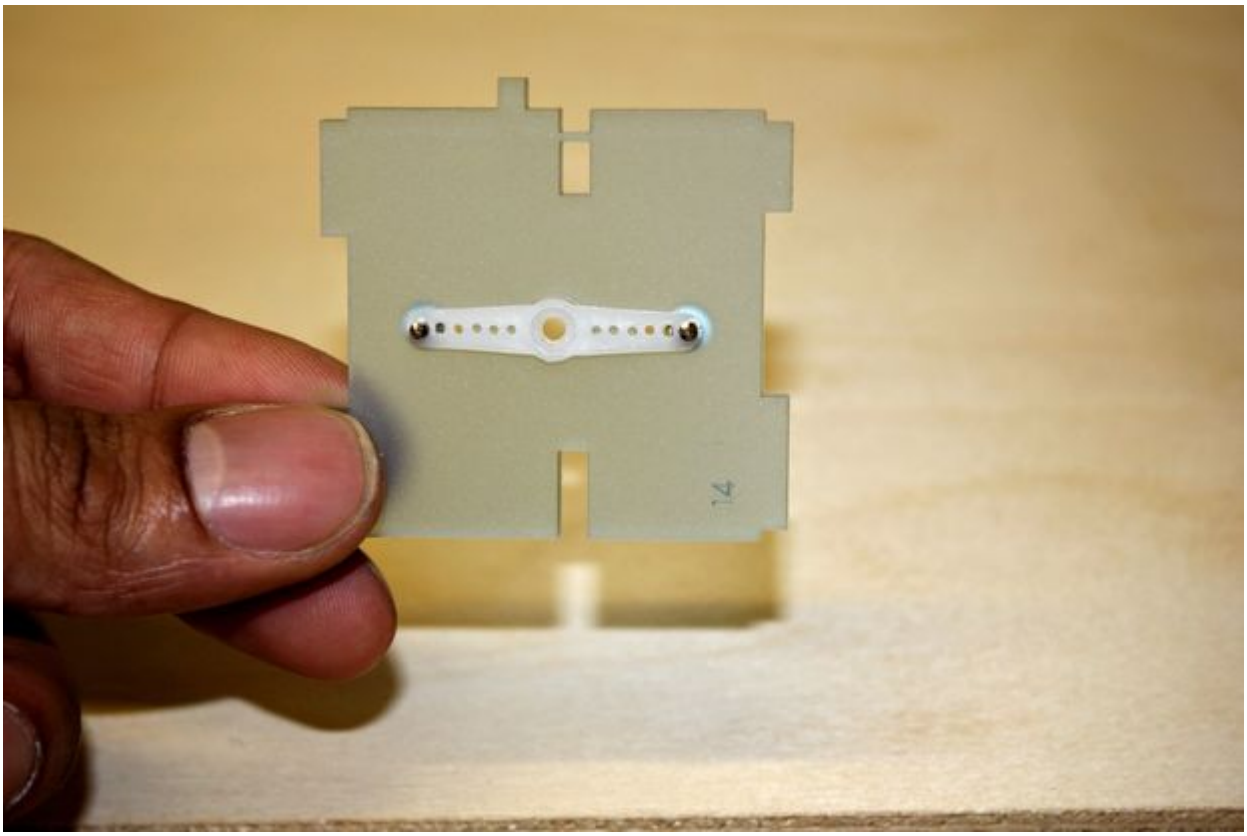
註：下圖左上角的螺絲長度為 6mm。



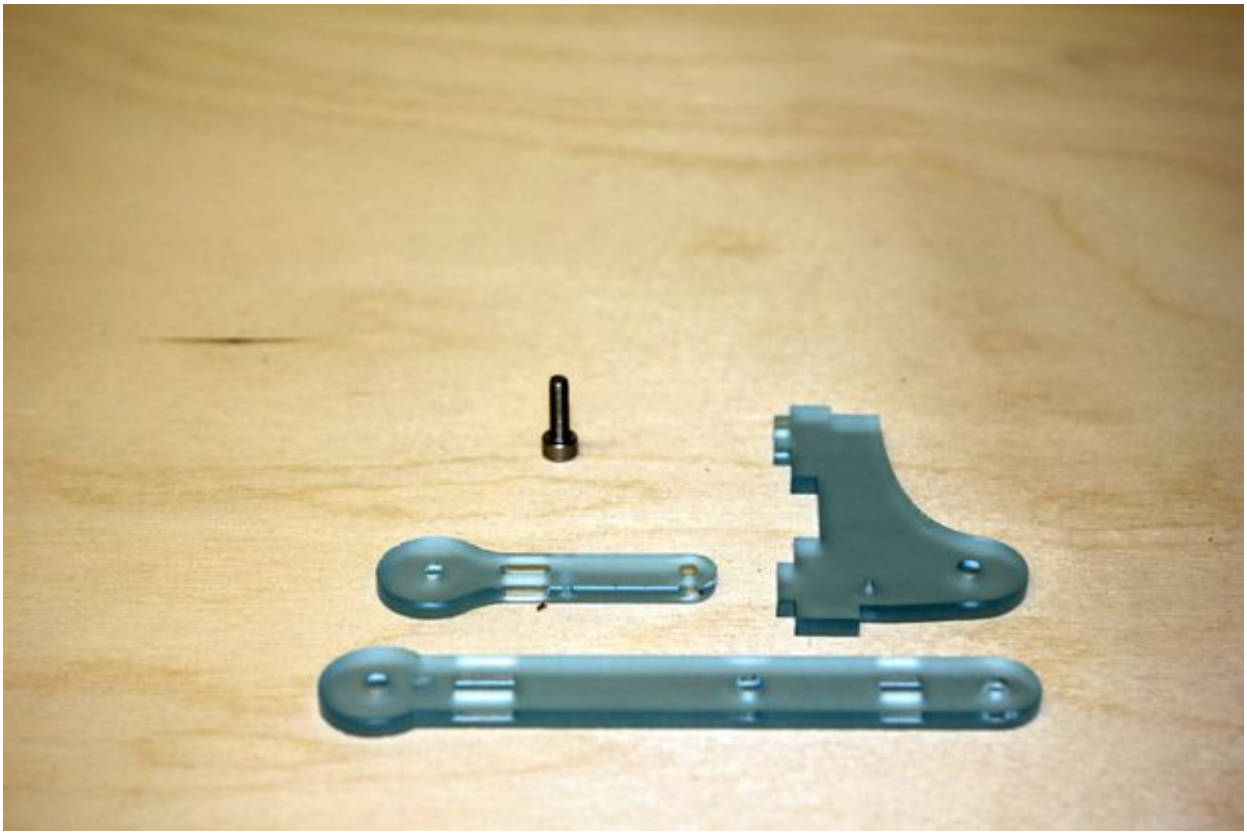
Step 6: 搭建中間底座

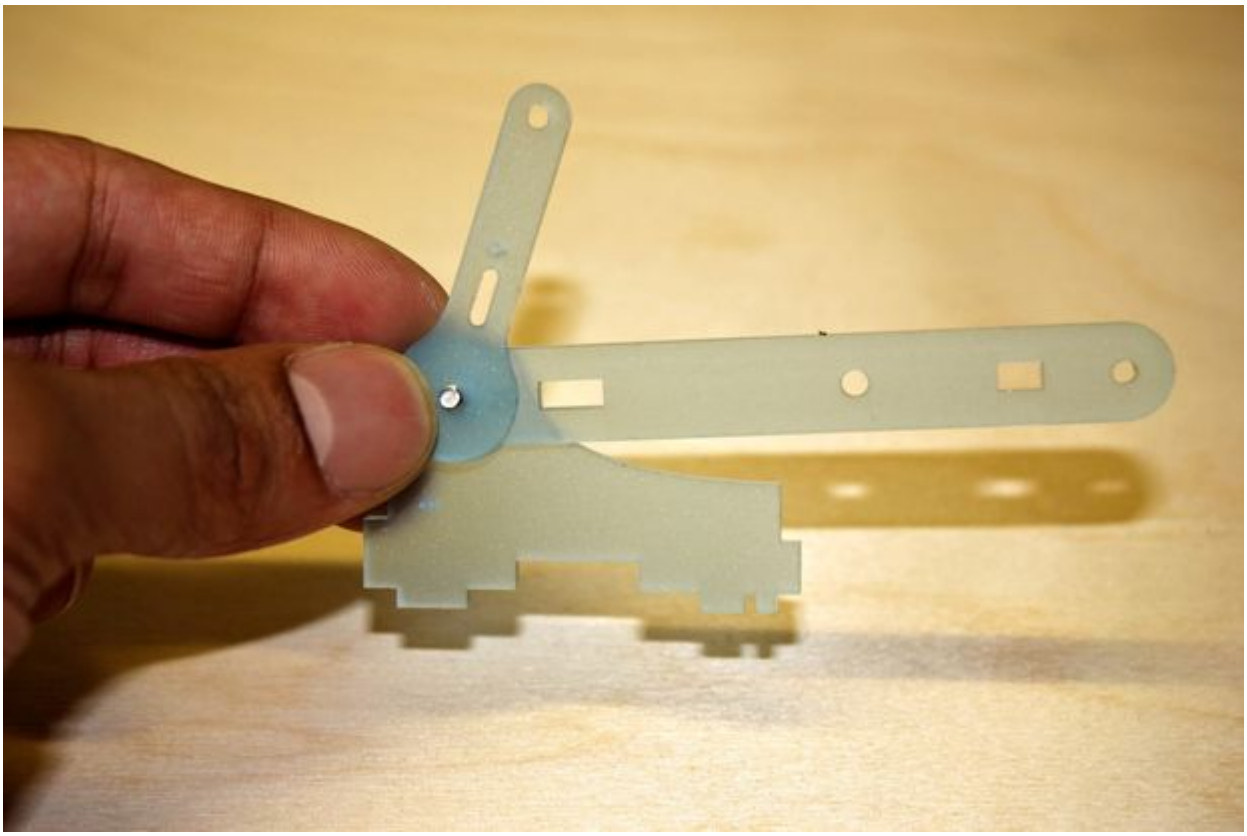






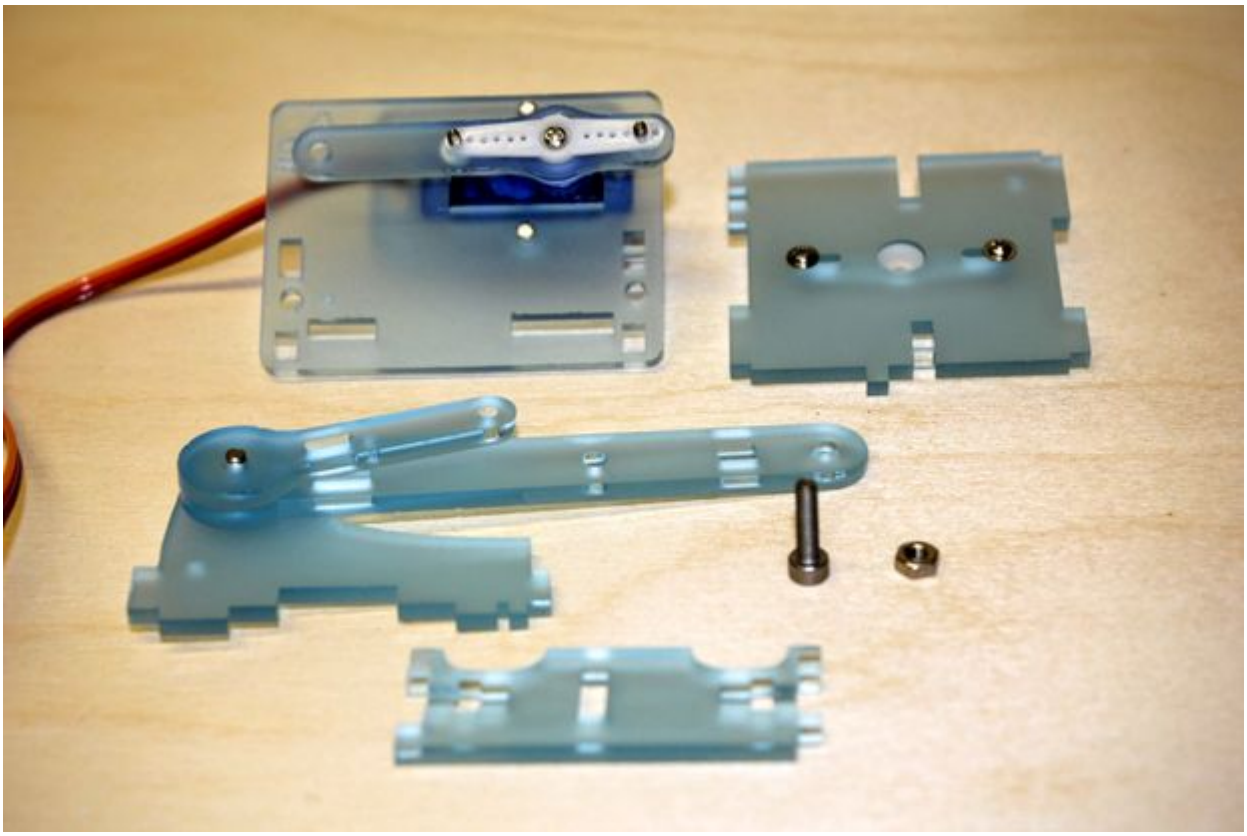
註：下圖螺絲長度為 10mm

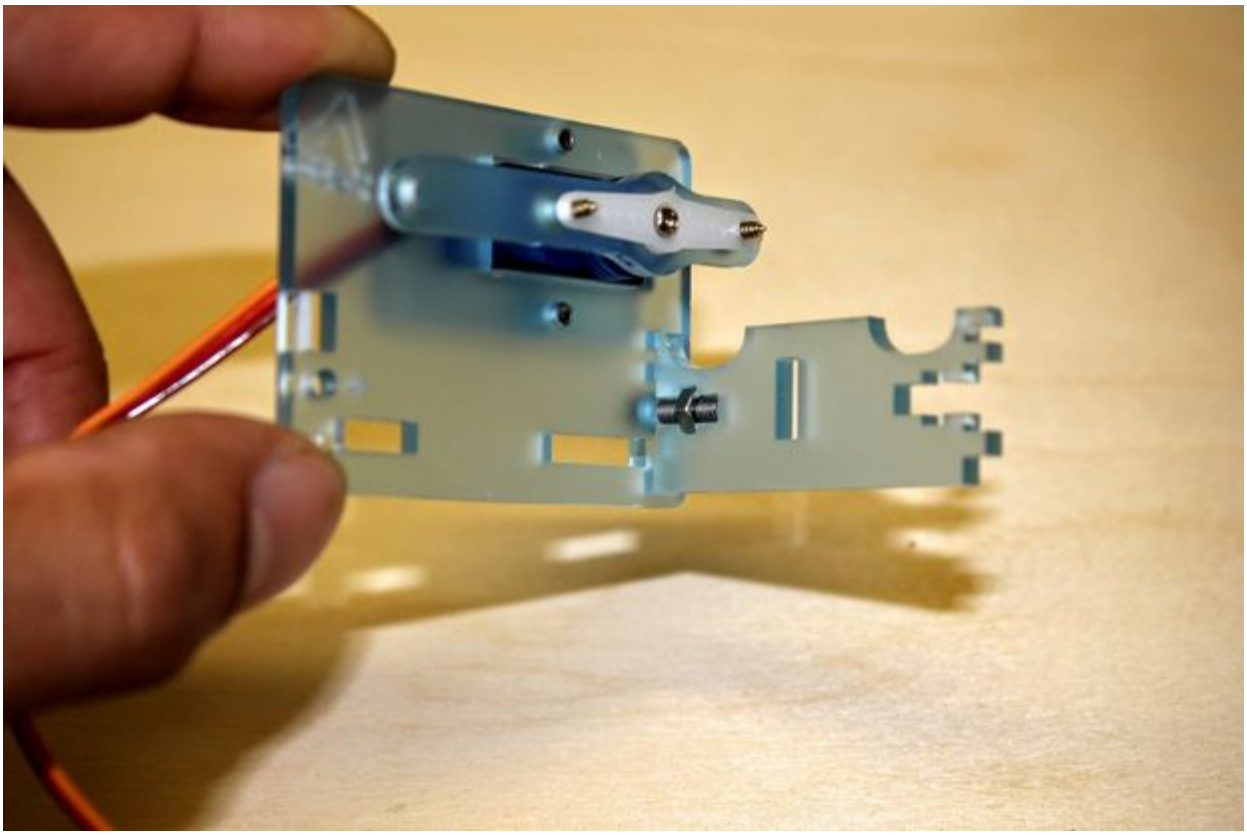


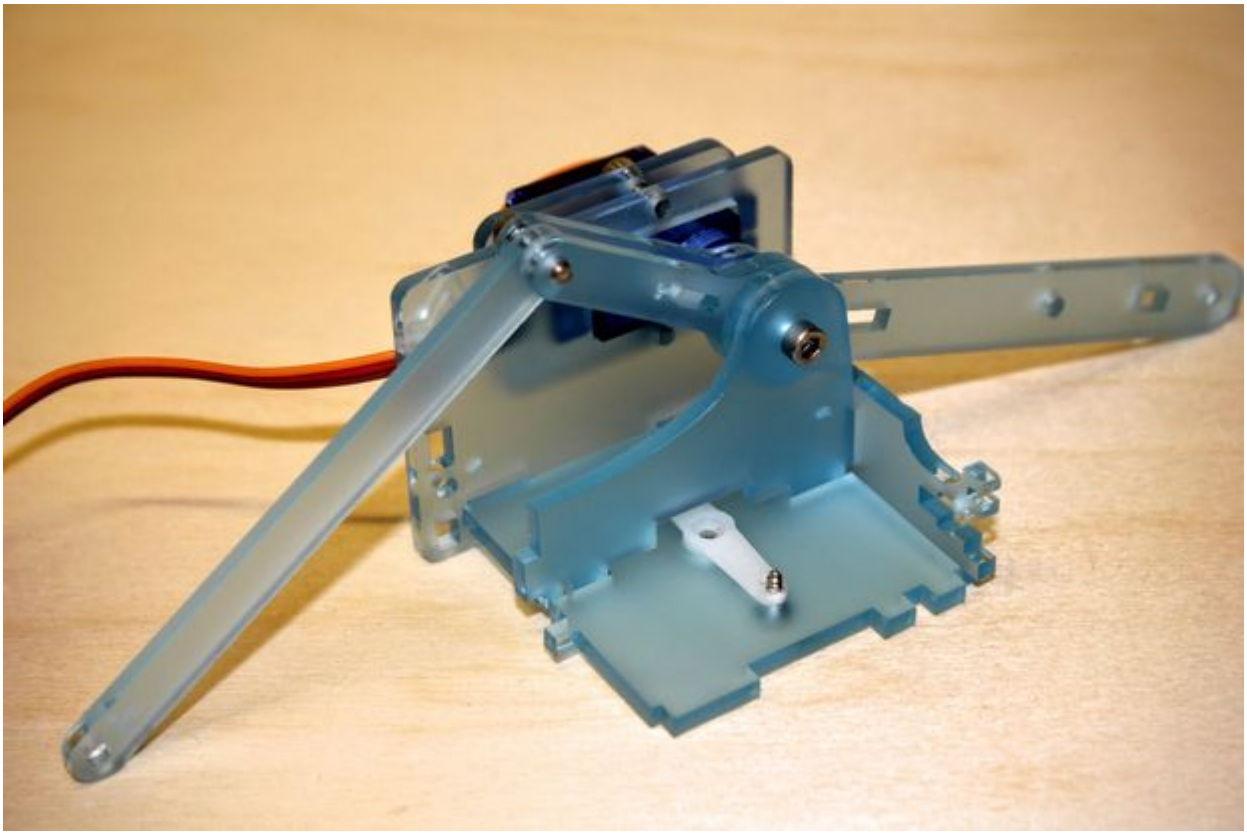


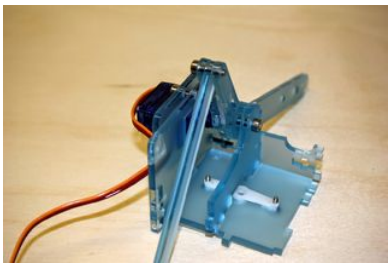
Step 7: 合併左邊配件

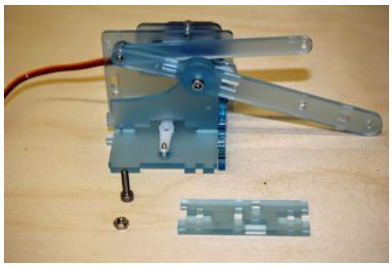
註：下圖的螺絲為 12mm，**不要把螺絲擰太緊，否則容易使亞克力配件斷裂**。

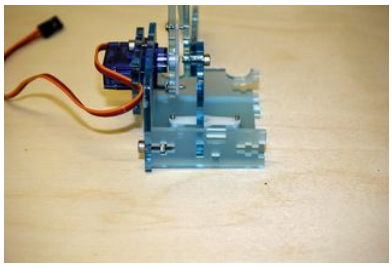






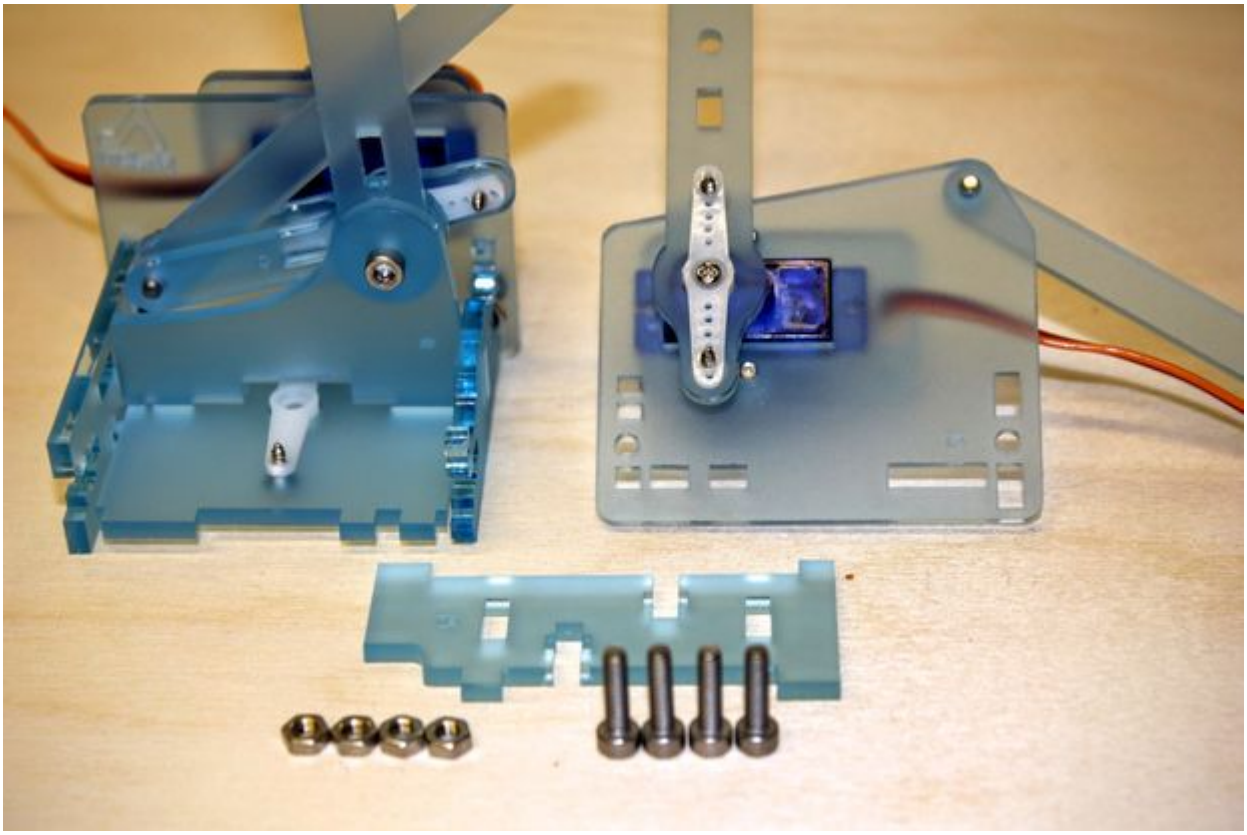


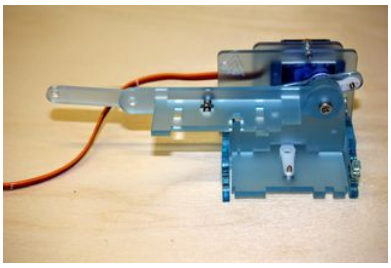


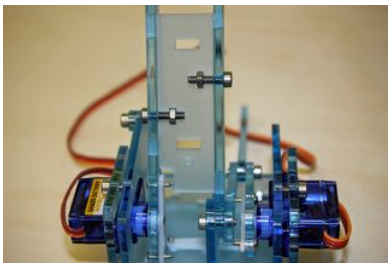


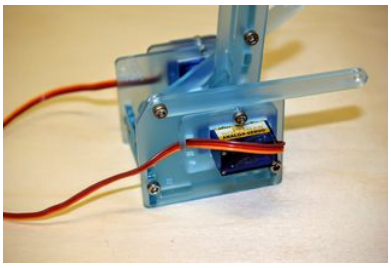
Step 8: 卡入右邊配件

註：下圖需要的螺絲長度為 12mm

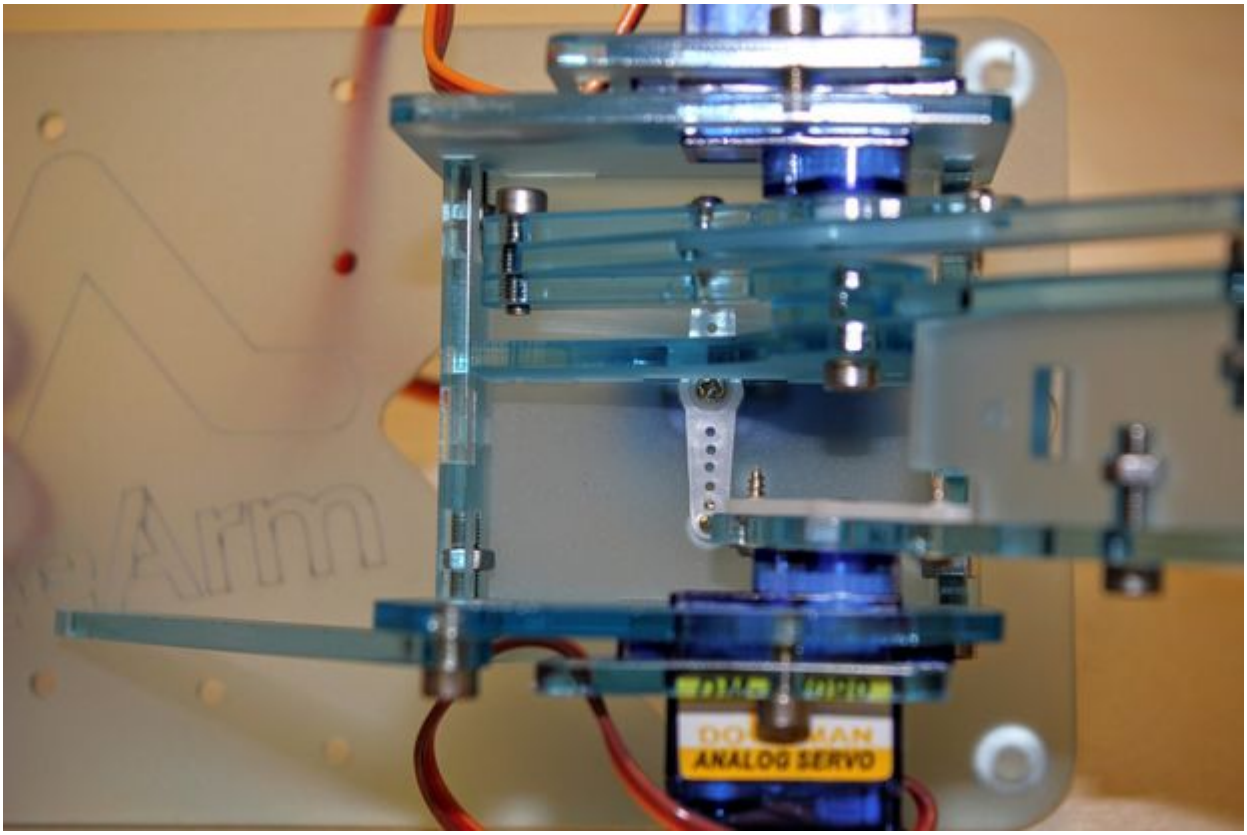




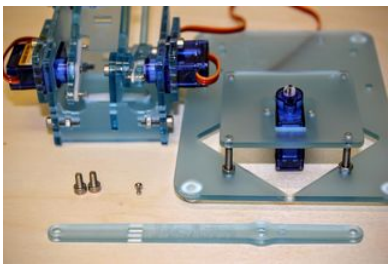
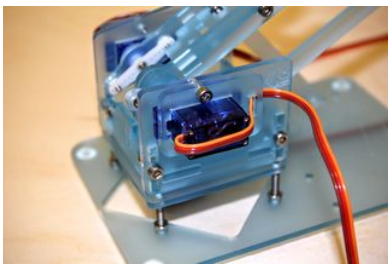




Step 9: 完成底座的安装

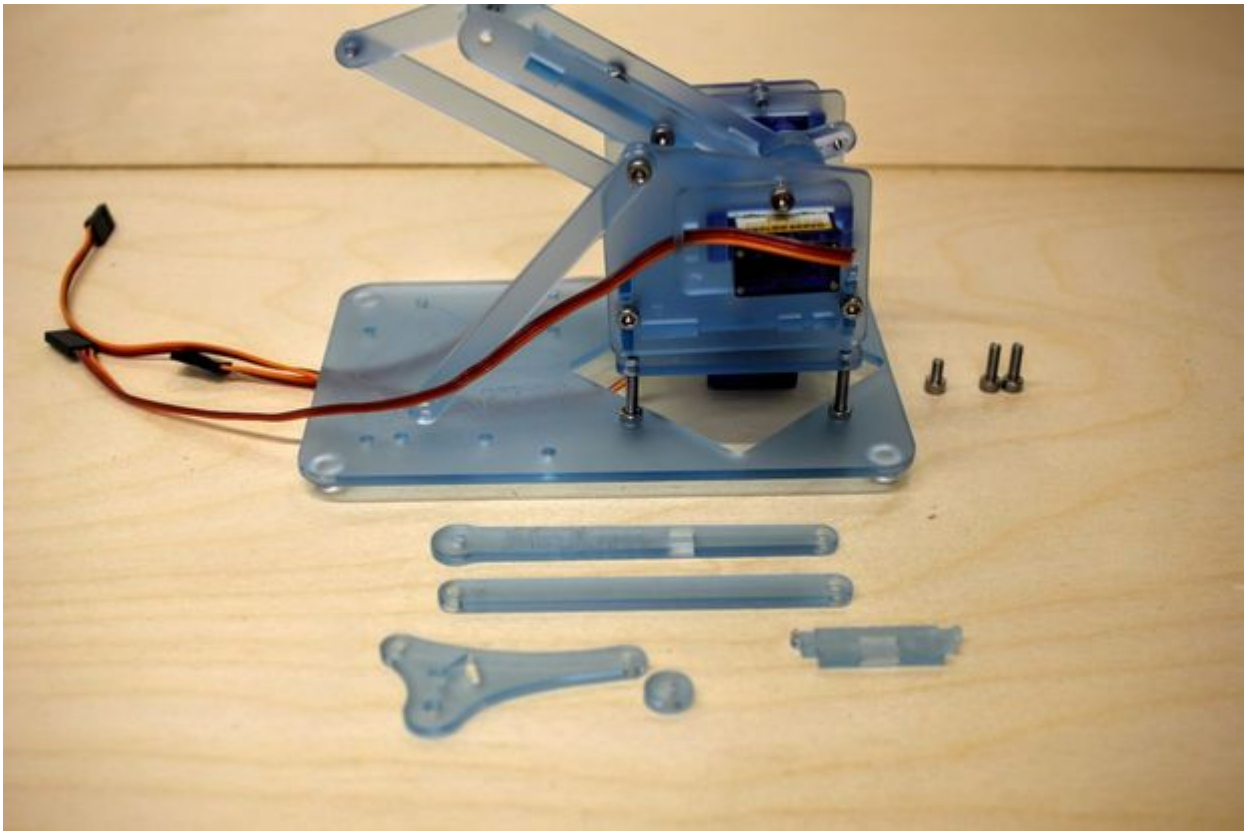


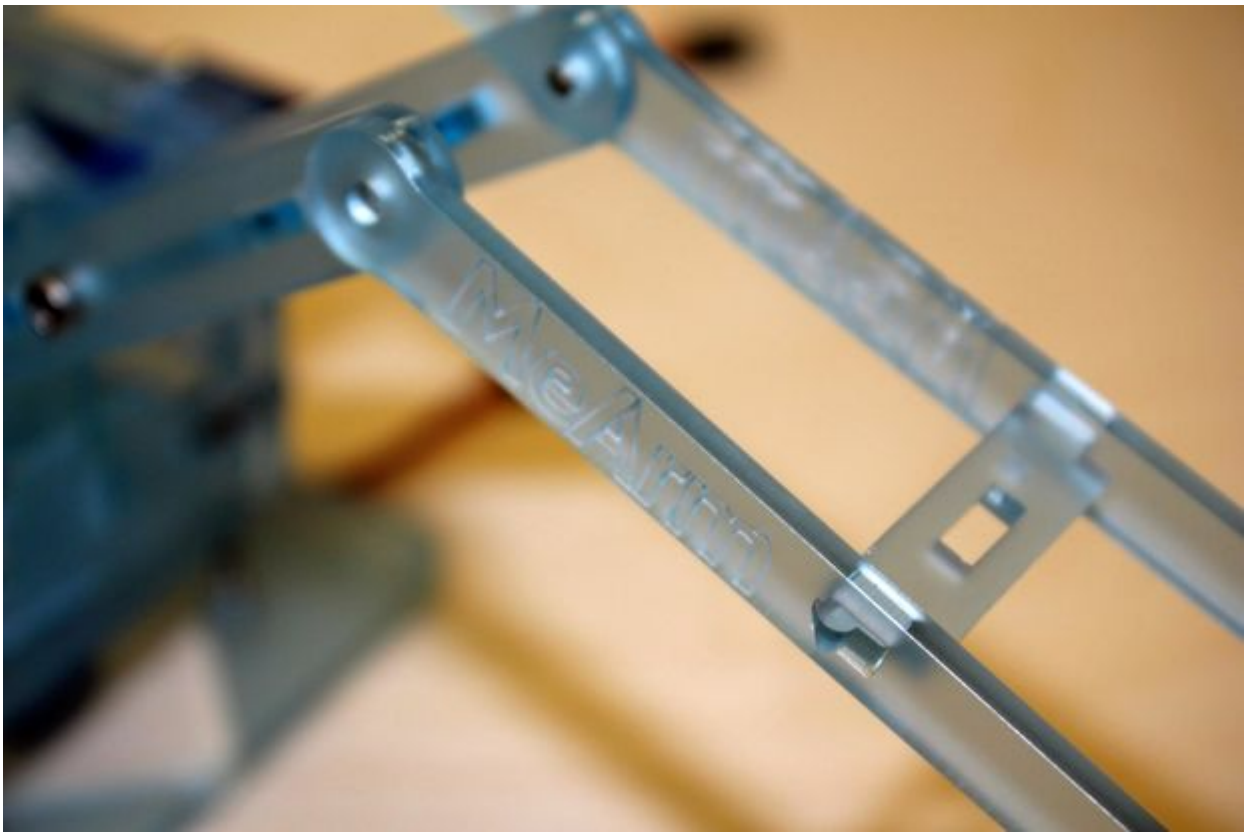
註：下圖需要 2 顆 6mm 的螺絲


Step 10: 右前臂

註：下圖需要 1 枚 6mm 的螺絲和 2 枚 10mm 的螺絲



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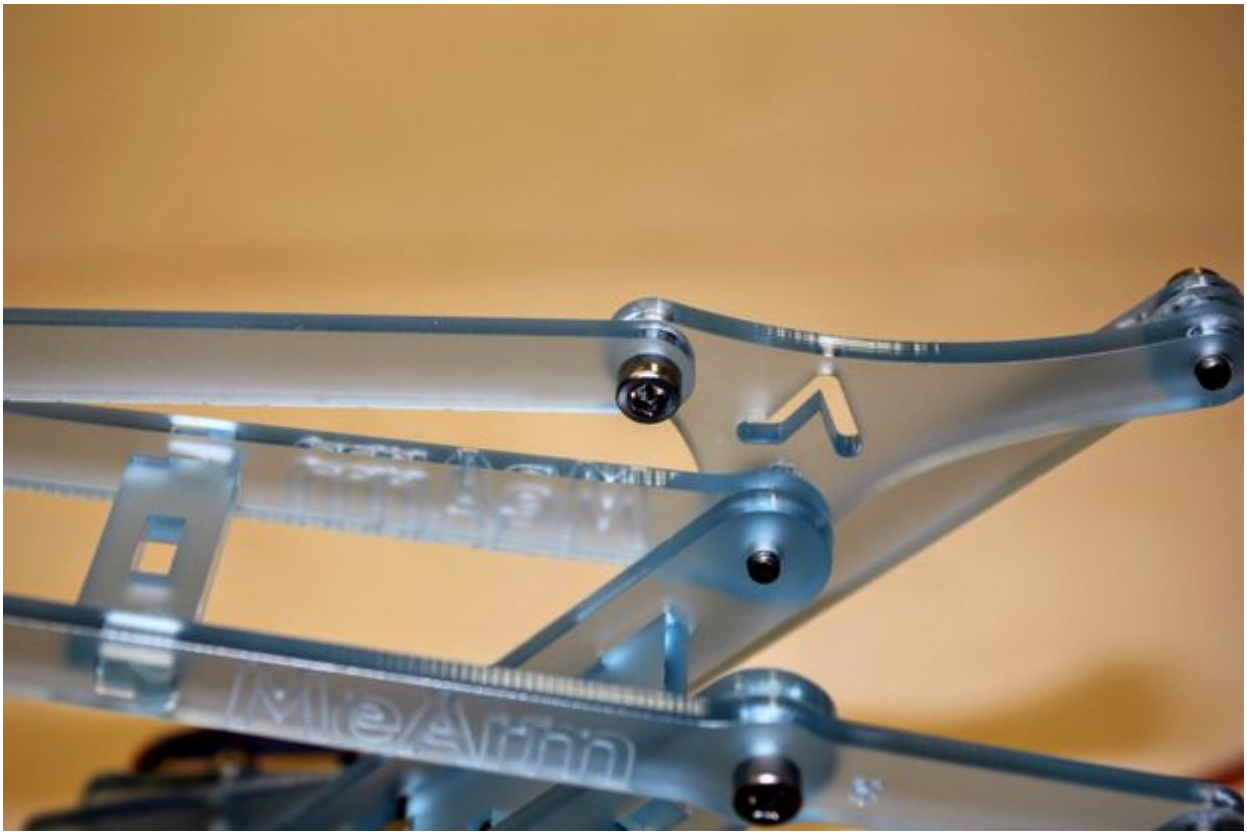
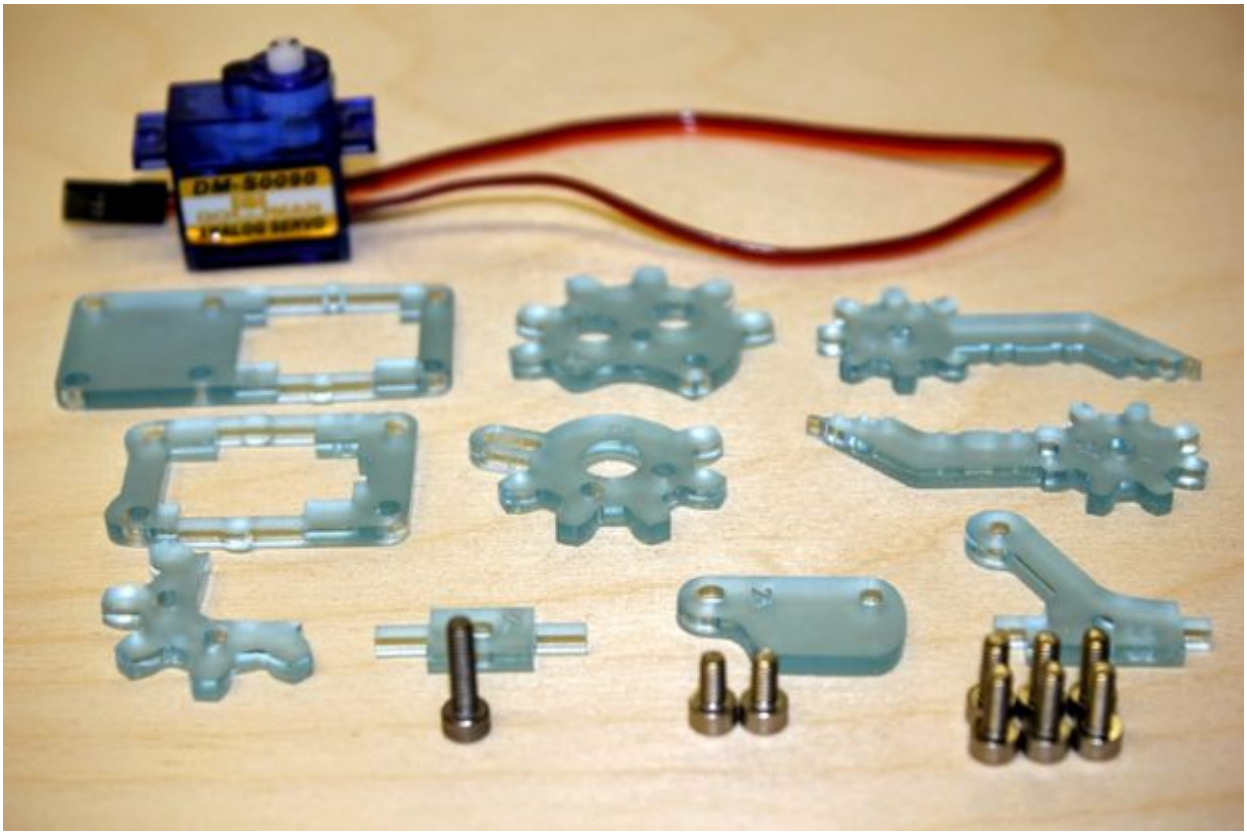
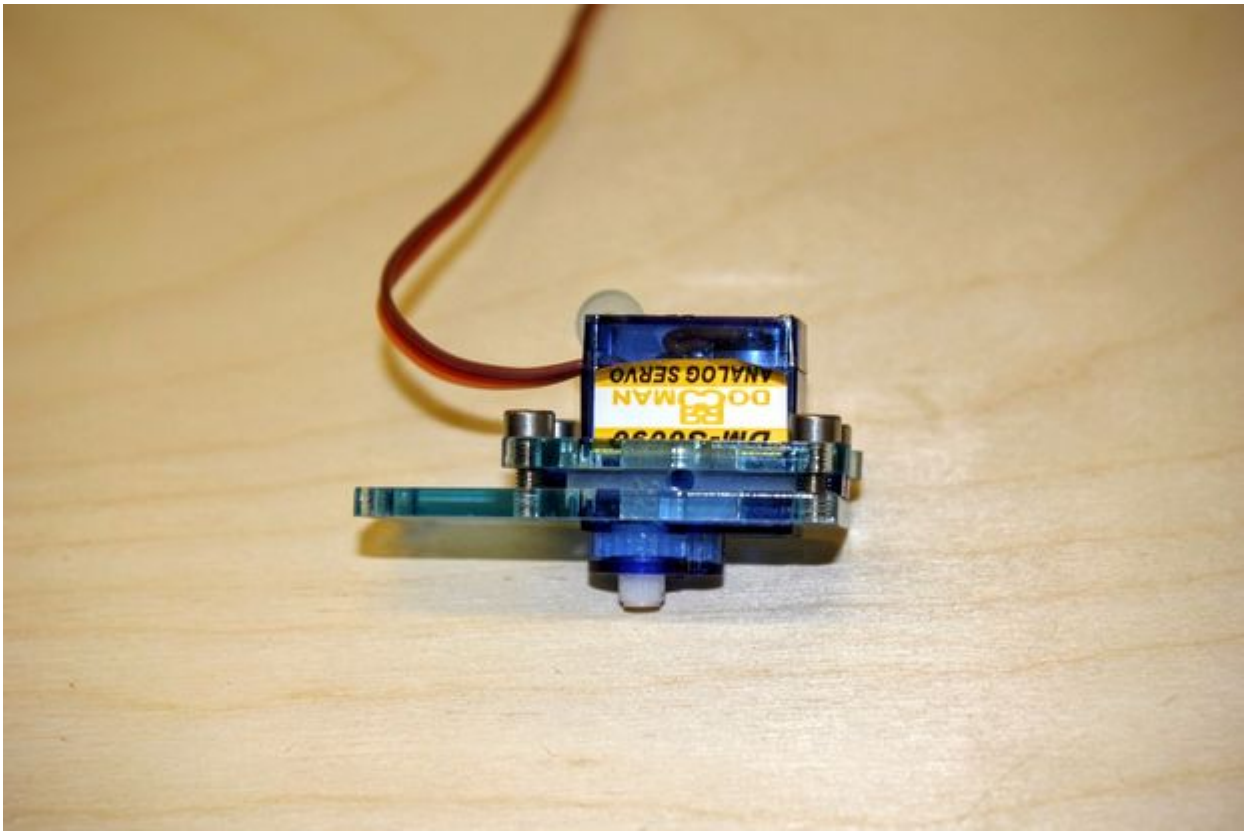
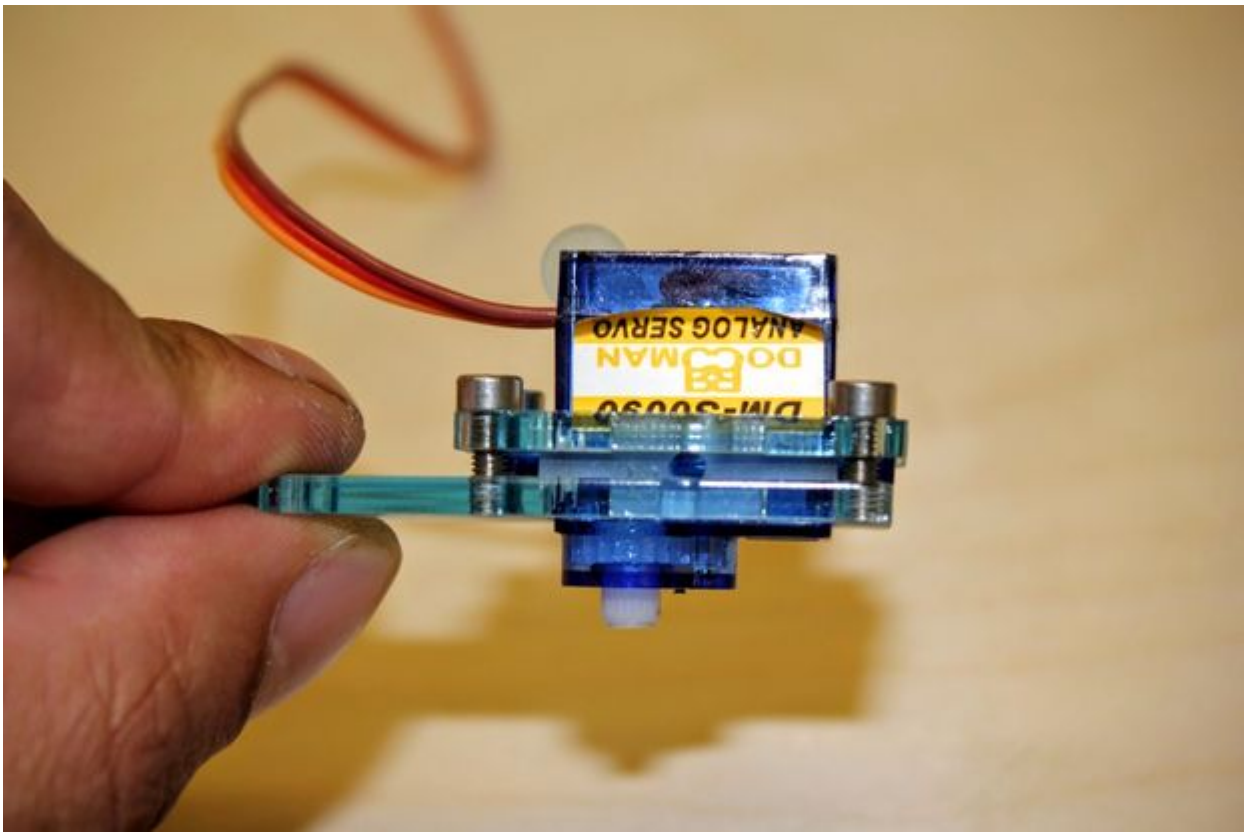


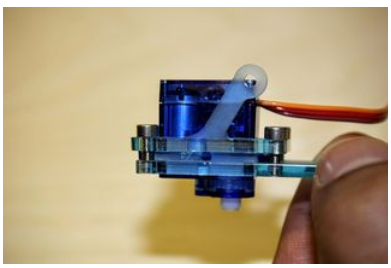
Step 11: 搭建鉗爪

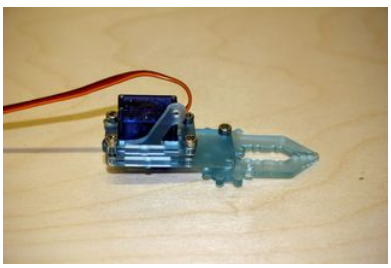
註：下圖需配螺絲為 12mm 螺絲 1 枚、6mm 螺絲 2 枚、8mm 螺絲 6 枚。

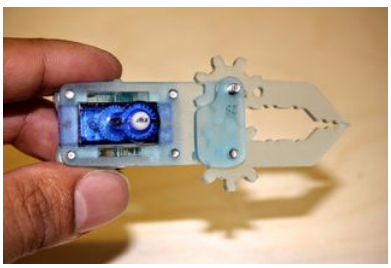



ANALOG SERVO
DM-S0090

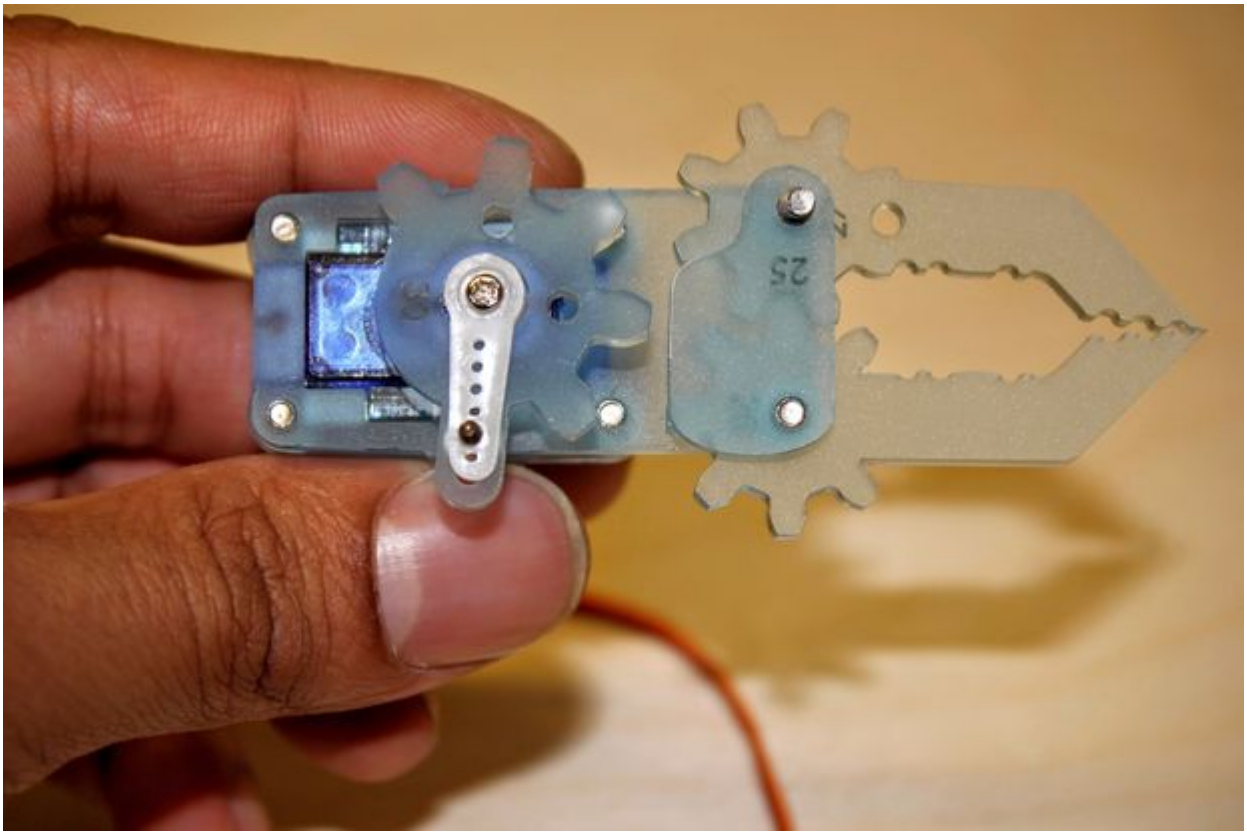

ANALOG SERVO
DM-S0090

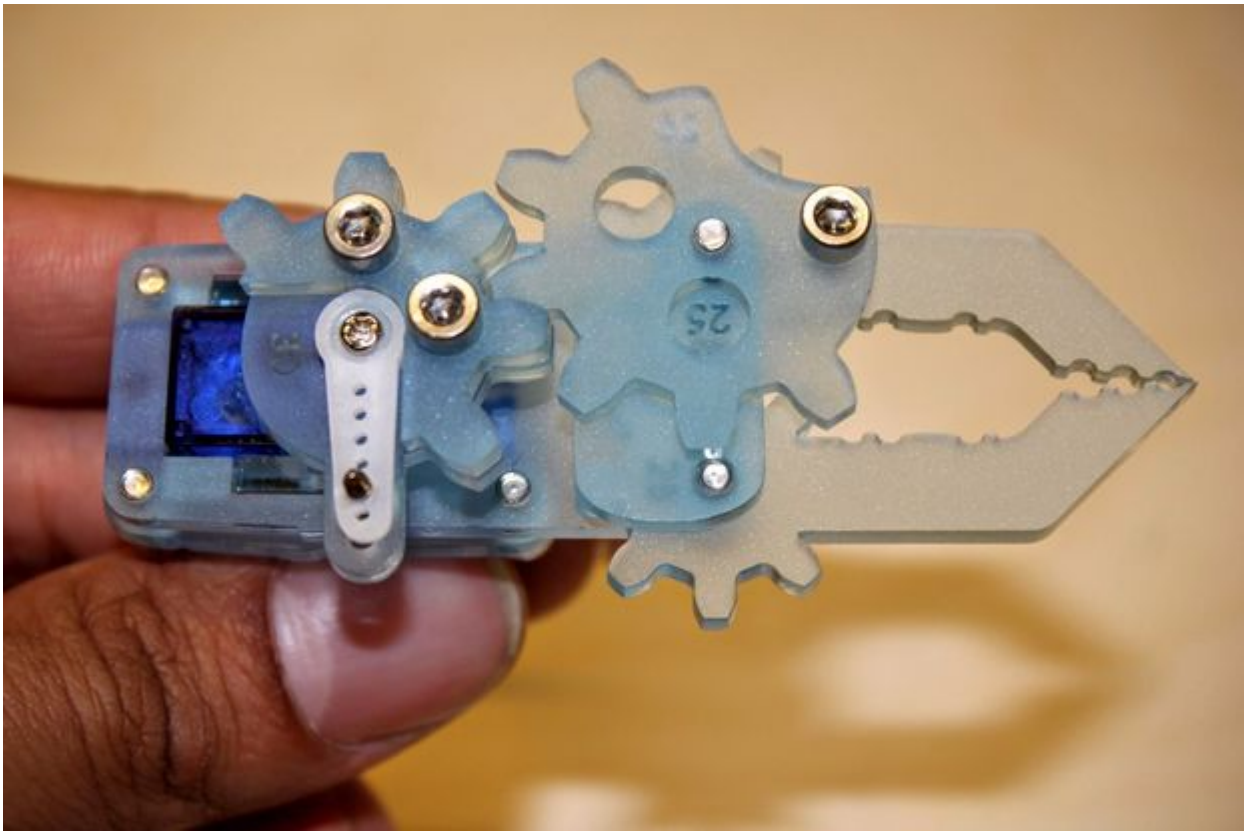






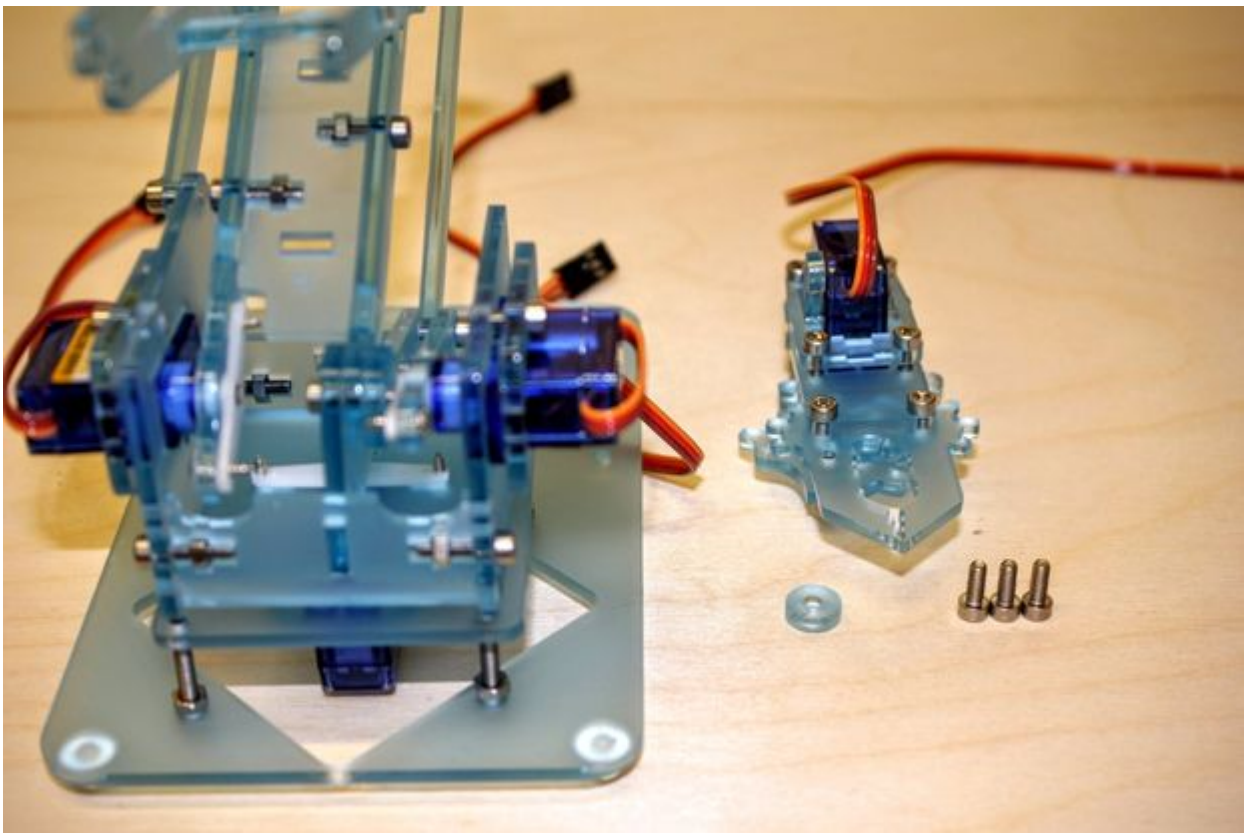
註：舵機初始角度在 25 度左右

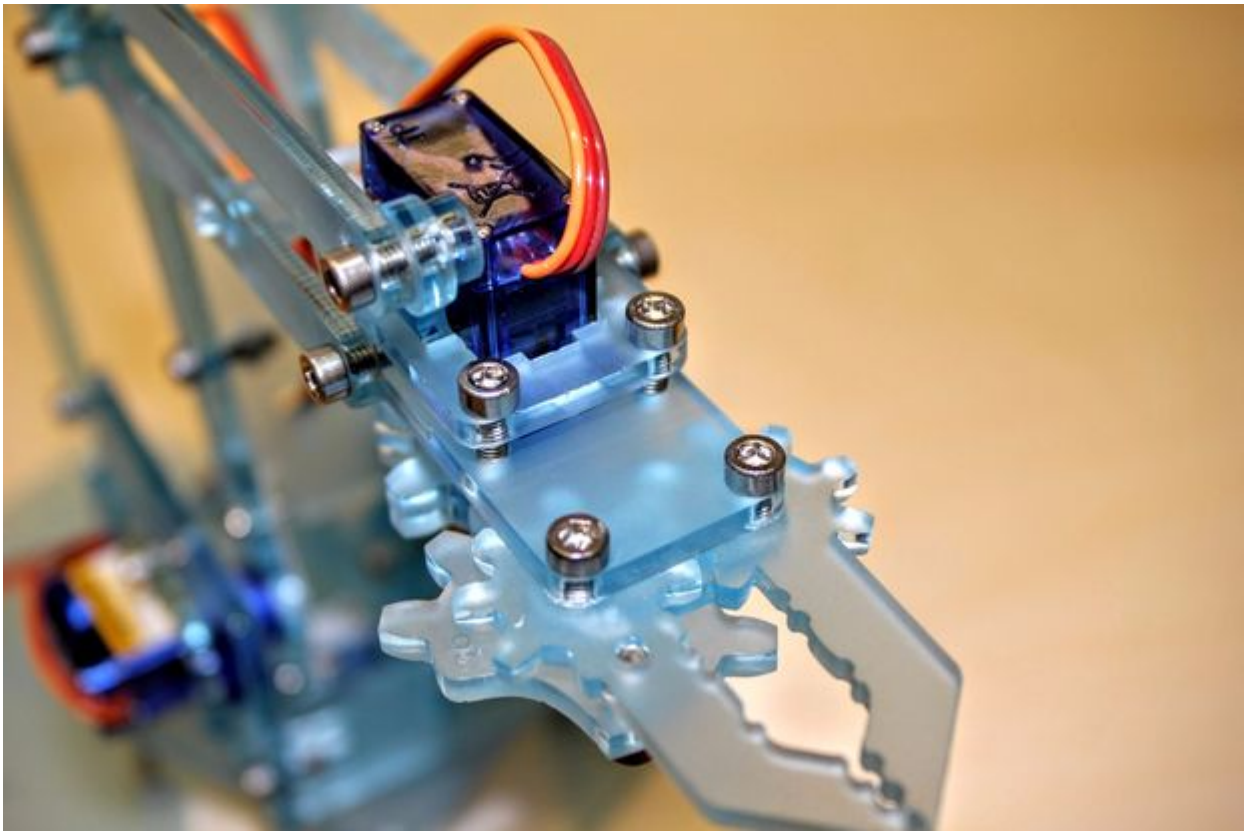


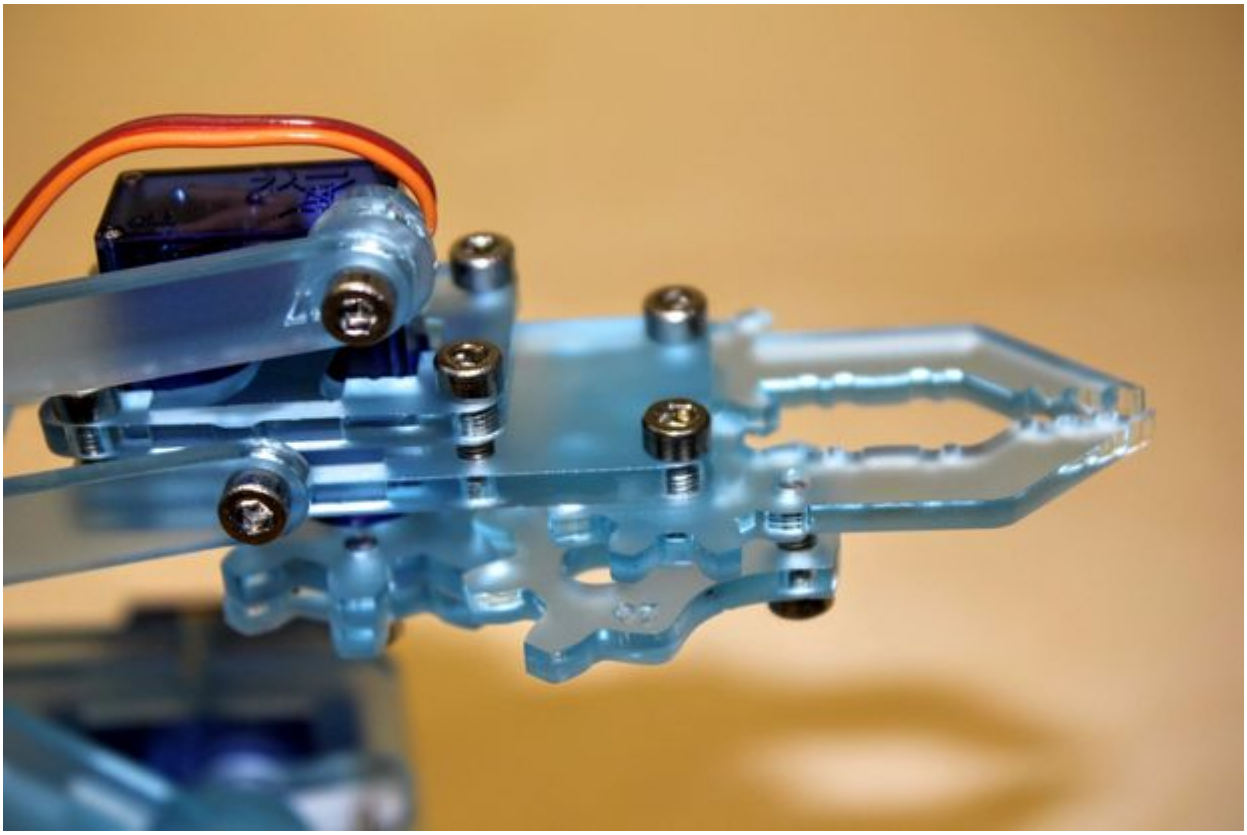


Step 12: 將鉗爪添加上去

註：下圖配 8mm 螺絲 3 顆







Step 13: 調試和故障排查

機械臂到此安裝完畢，接下來需要接相應的控制板或者舵機驅動器。