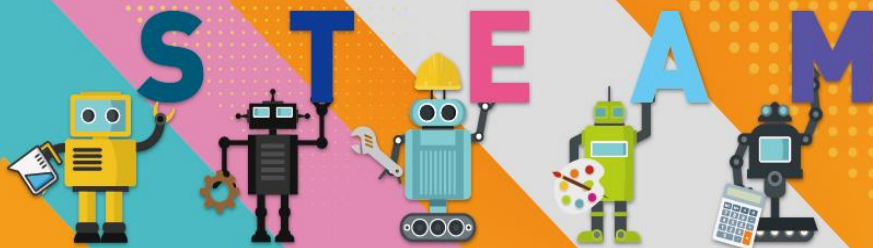




FLSH

翻轉燈製作

枋寮高中科學創意團隊



Fun Maker

電燈簡介



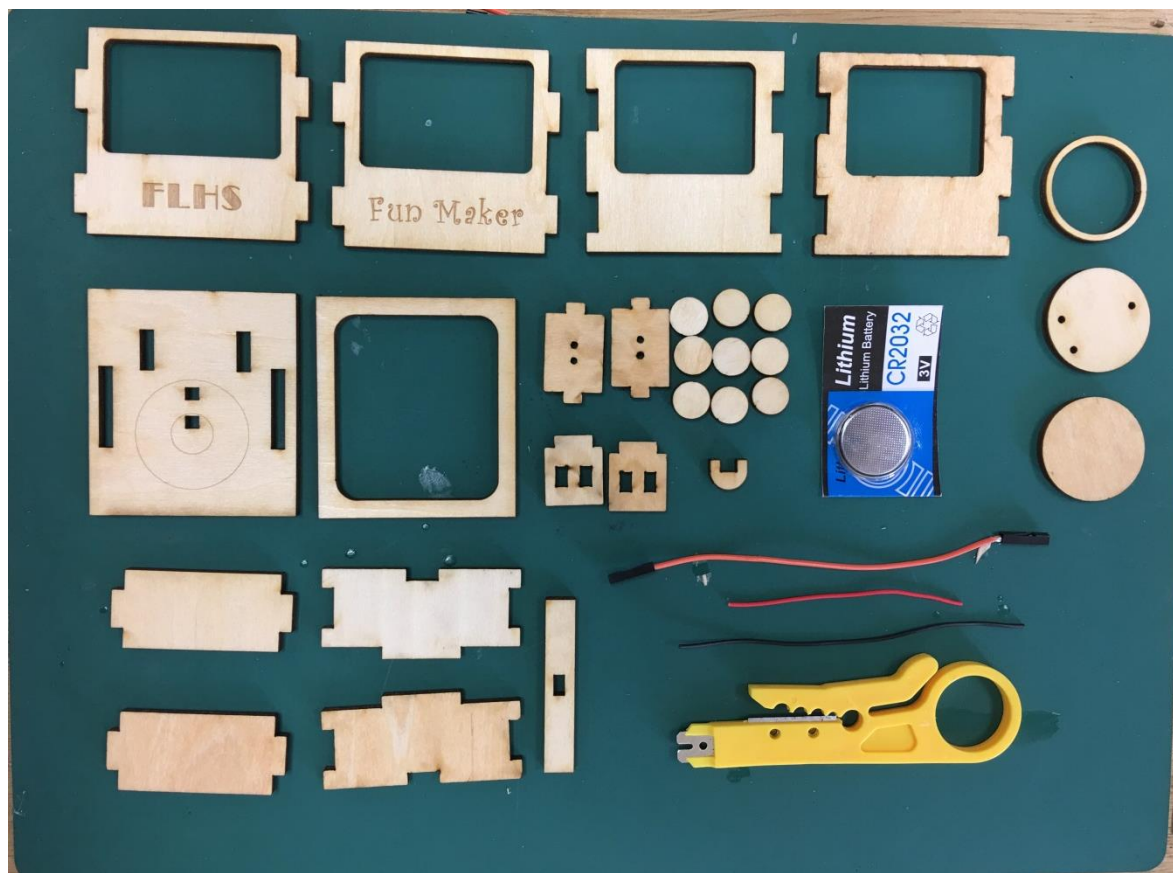
- 燈泡接上電源就變成電燈。
- 加上開關後就可以開關電燈。
- 開關如何接？



今日所需材料



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裁剪單芯線

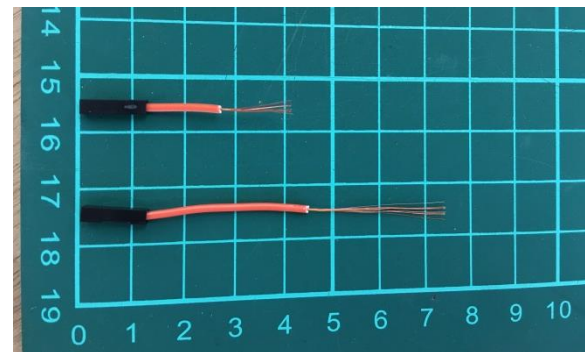
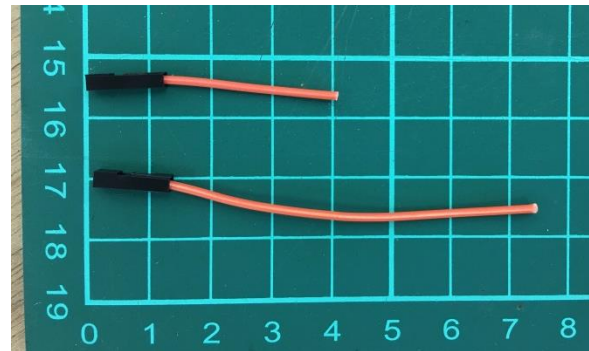
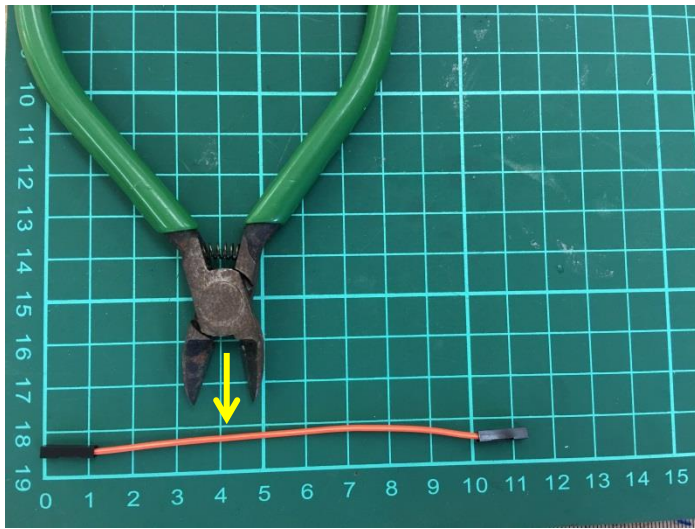


- 將單芯線裁剪成**黑色12cm**、**紅色7cm**的長度
- 使用剝線鉗剝線：
黑、紅色兩端各剝 2 cm



裁剪杜邦線

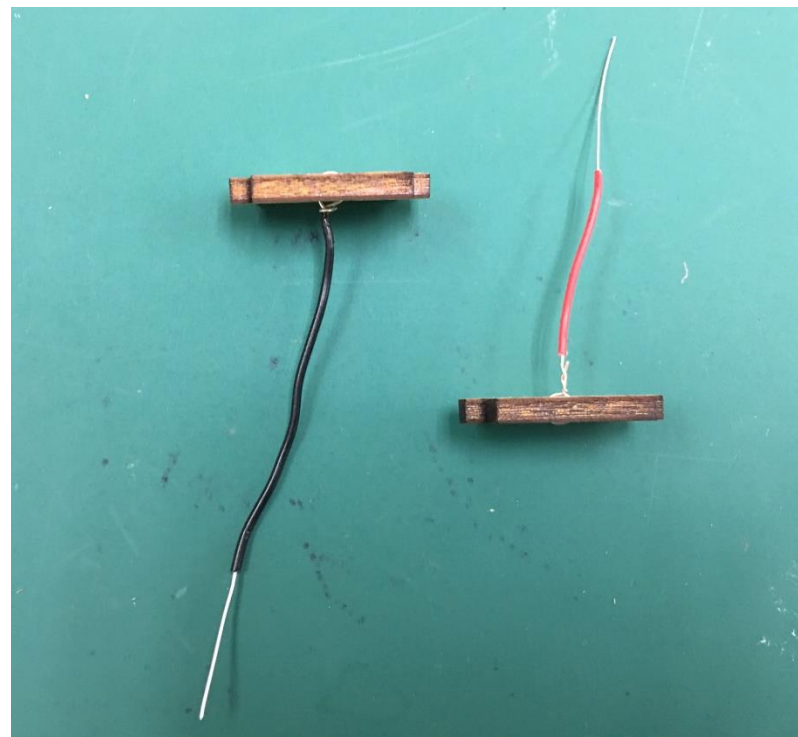
- 將一條杜邦線裁剪成 4、7cm 兩段，一端各剝線 1.5、3 cm



製作電池座

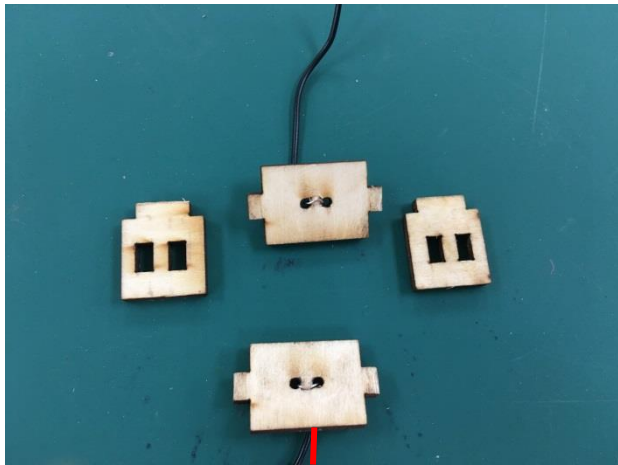
1. 取出一黑一紅單芯線

2. 兩條單芯線分別穿過右圖木板後，扭轉兩圈，使其不易脫落即可。不可轉太多圈喔，線會斷。

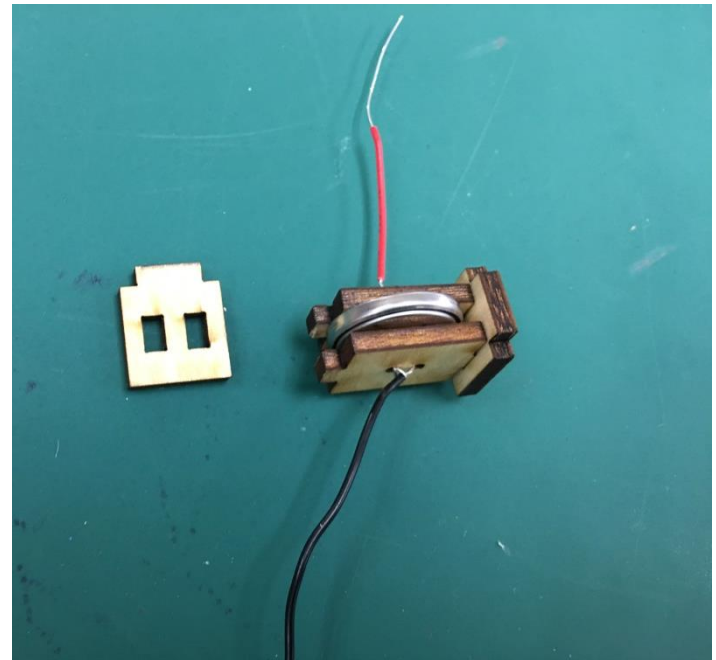


組裝電池座

1. 拿出上圖的木片



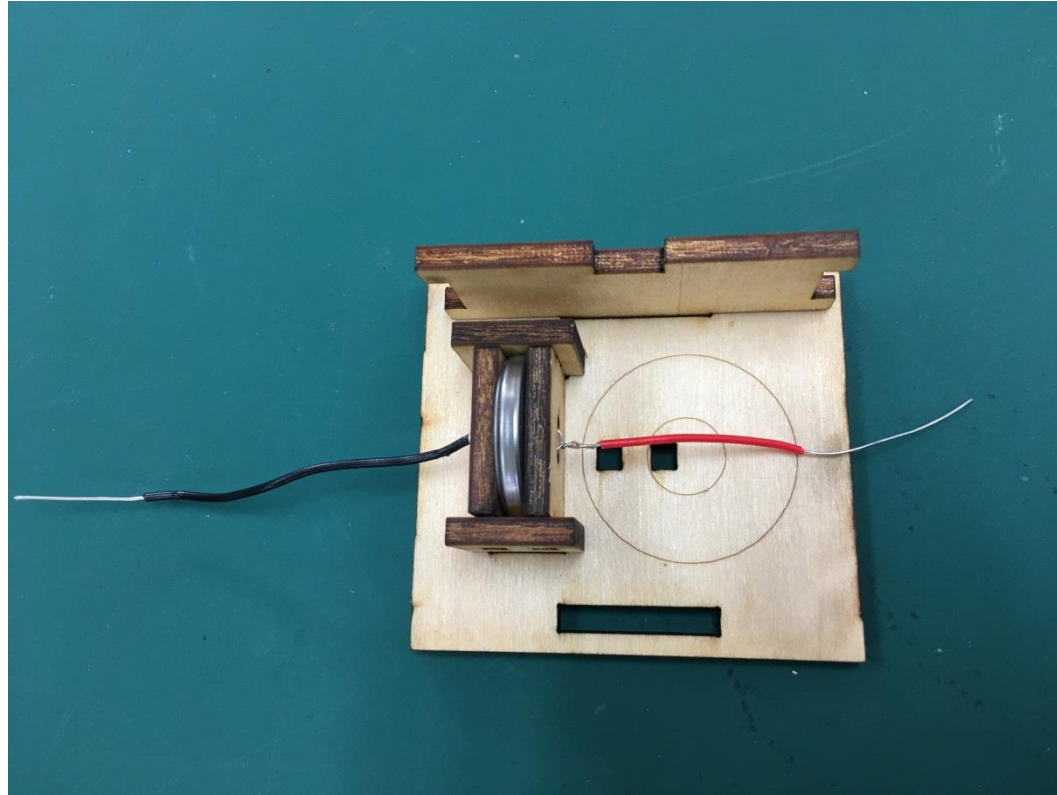
2. 拿出鈕扣電池，進行組裝



紅色線接電池的正極
黑色線接電池的負極



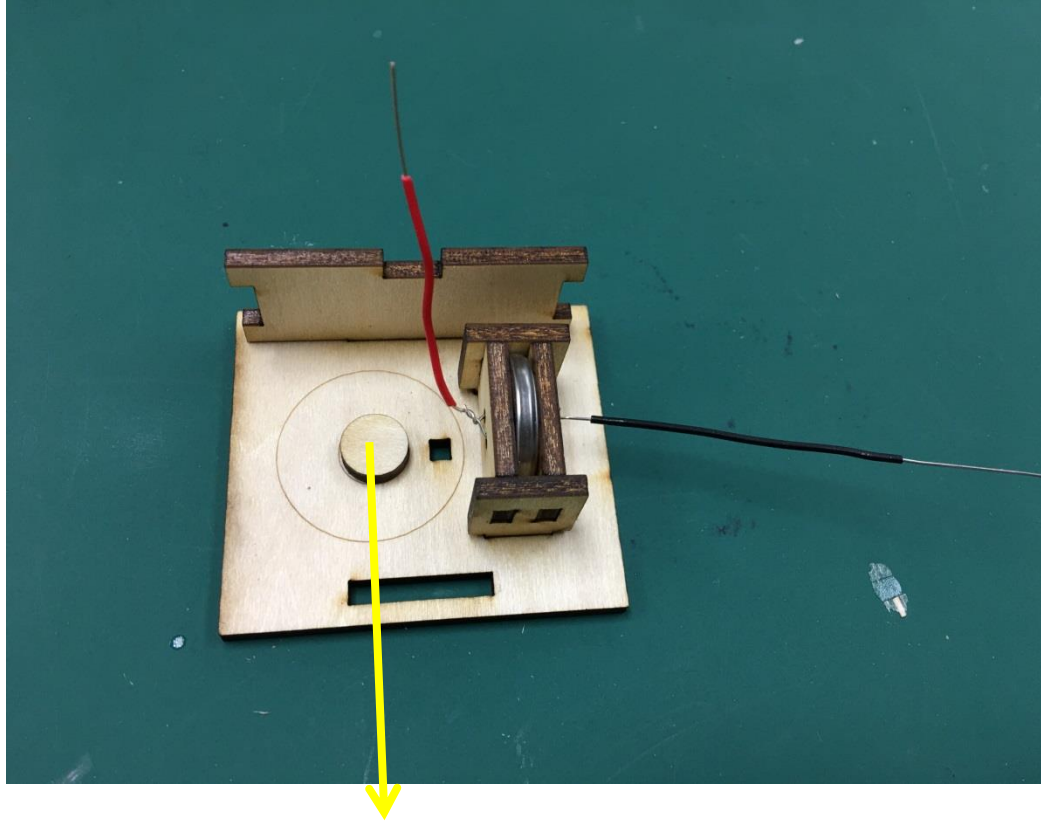
插入底板



電池座黏上底板，黑線朝外側



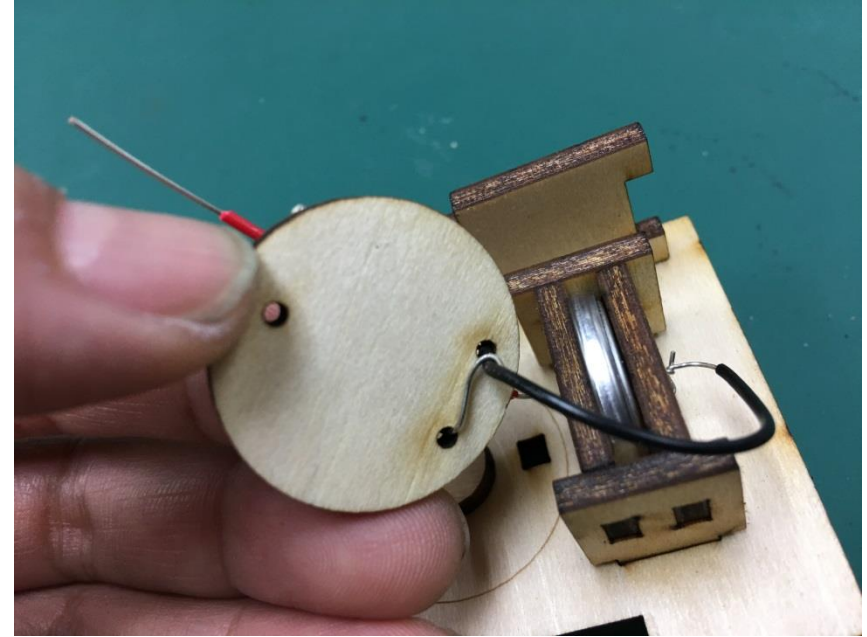
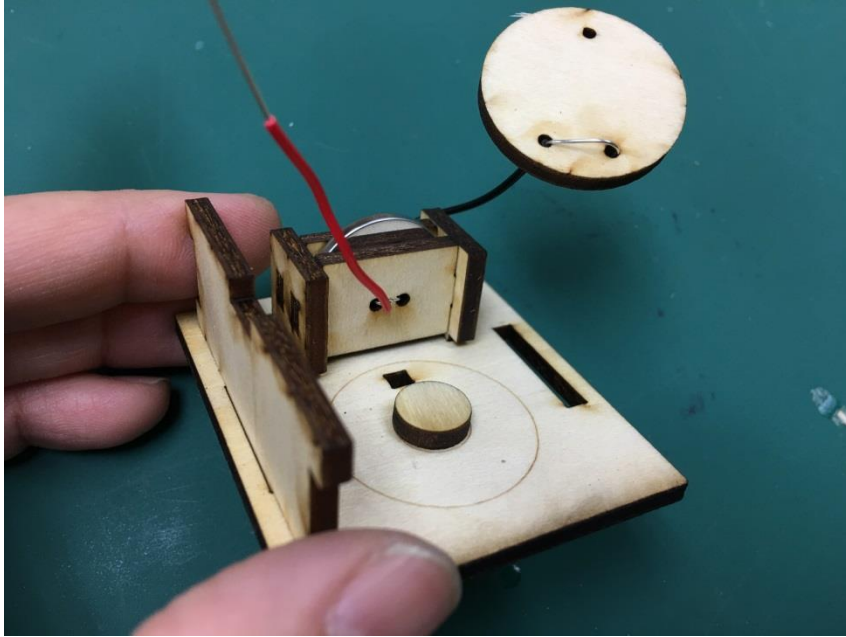
固定小圓形墊片



小圓形墊片固定上去



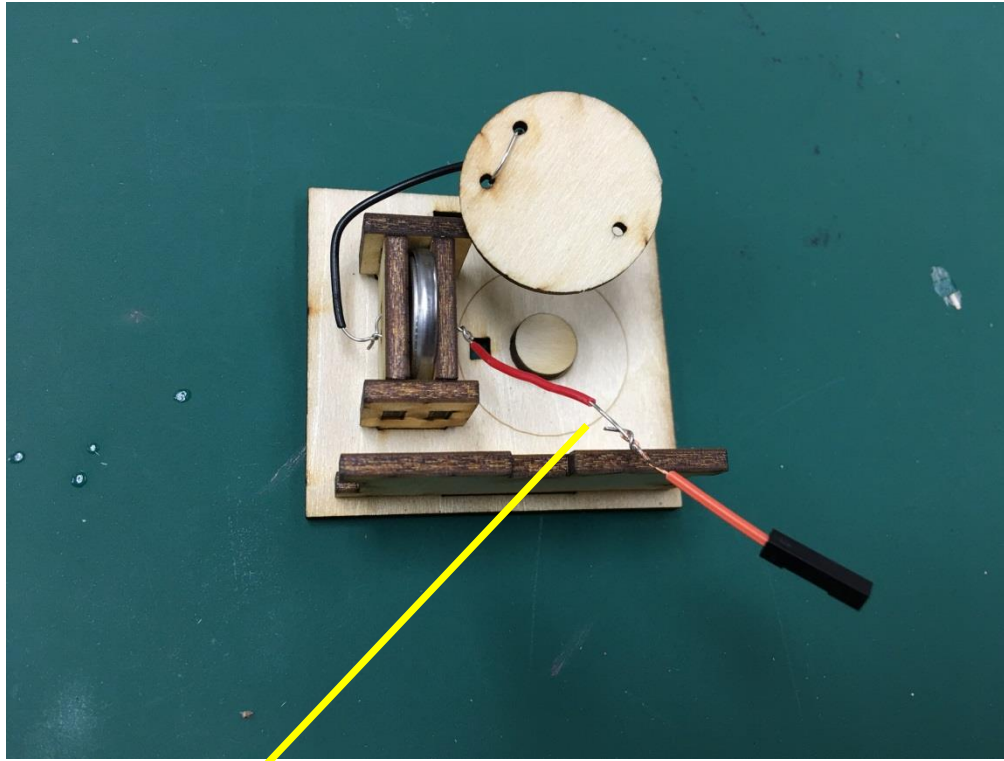
接上黑色單芯線



黑色單芯線接上圓型木片兩個洞的那邊(電池的左邊)，在背後扭轉一圈固定



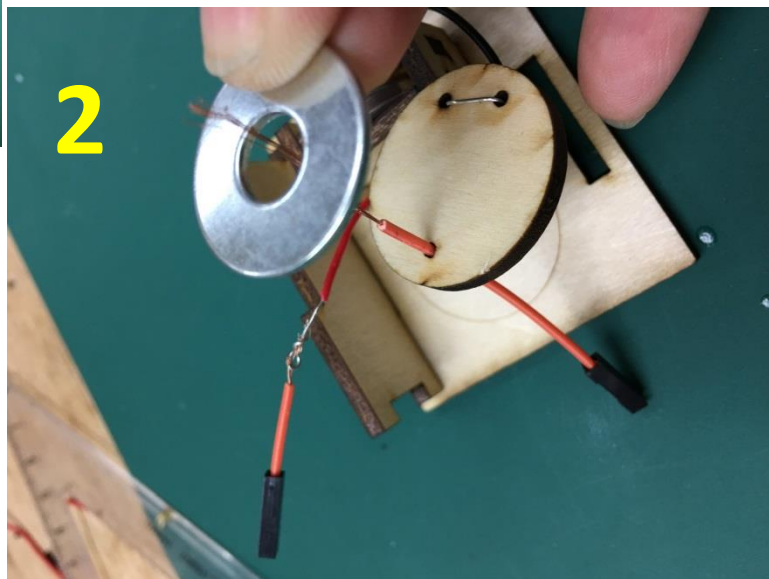
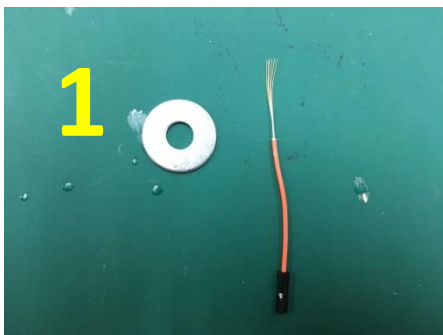
正極接上**短的**杜邦線



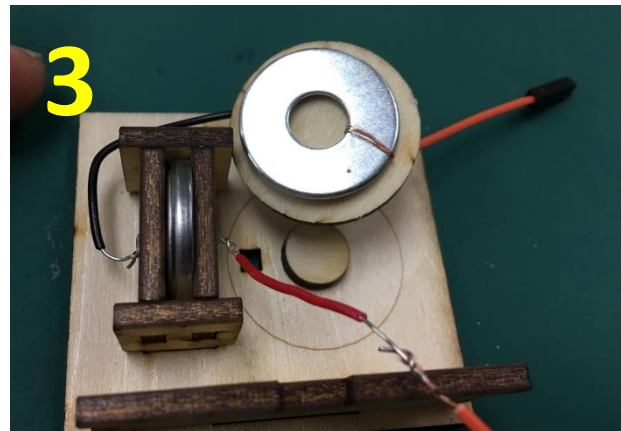
紅色單芯線與較短的杜邦線扭緊，
並用**電工膠帶**固定



較長的杜邦線綁上墊片



杜邦線在墊片底部扭緊



拿出下列材料，依序將木片黏上

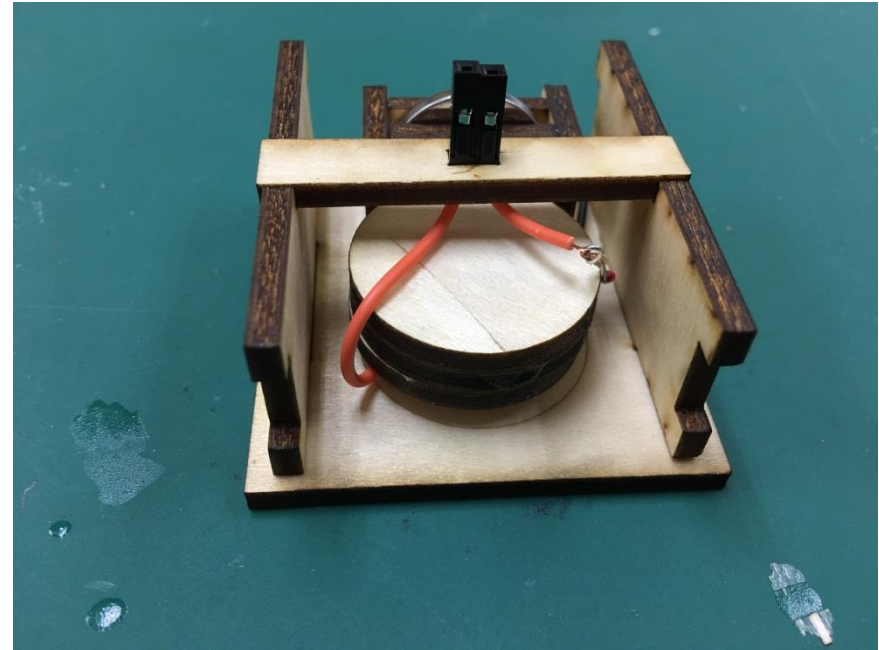
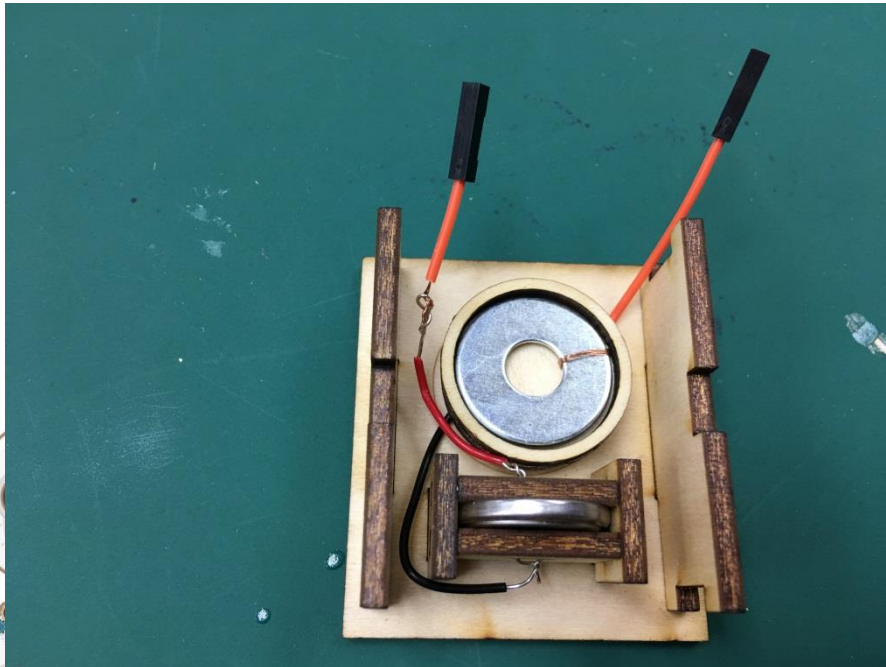
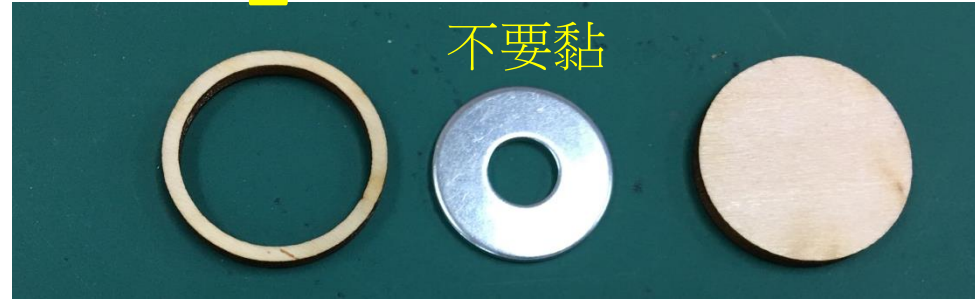


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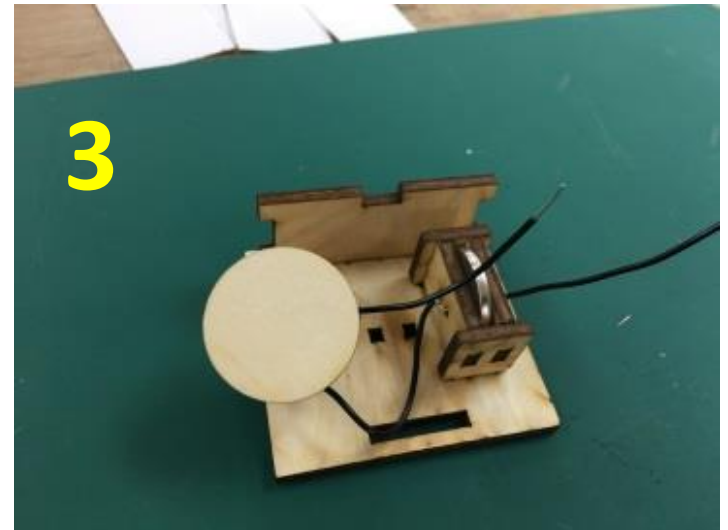
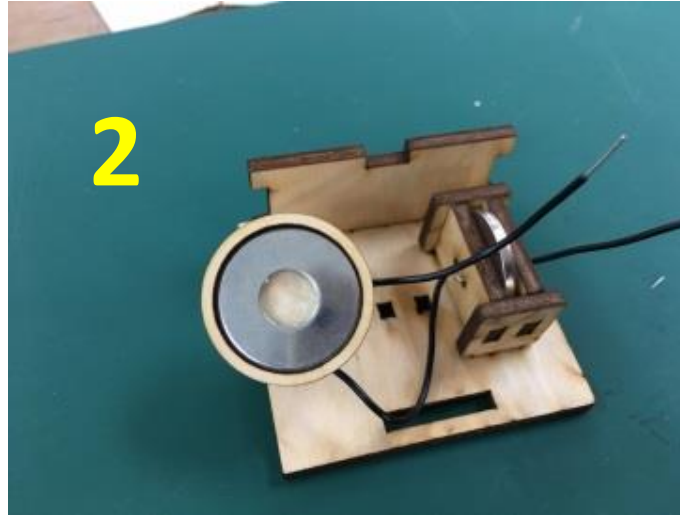
1

2

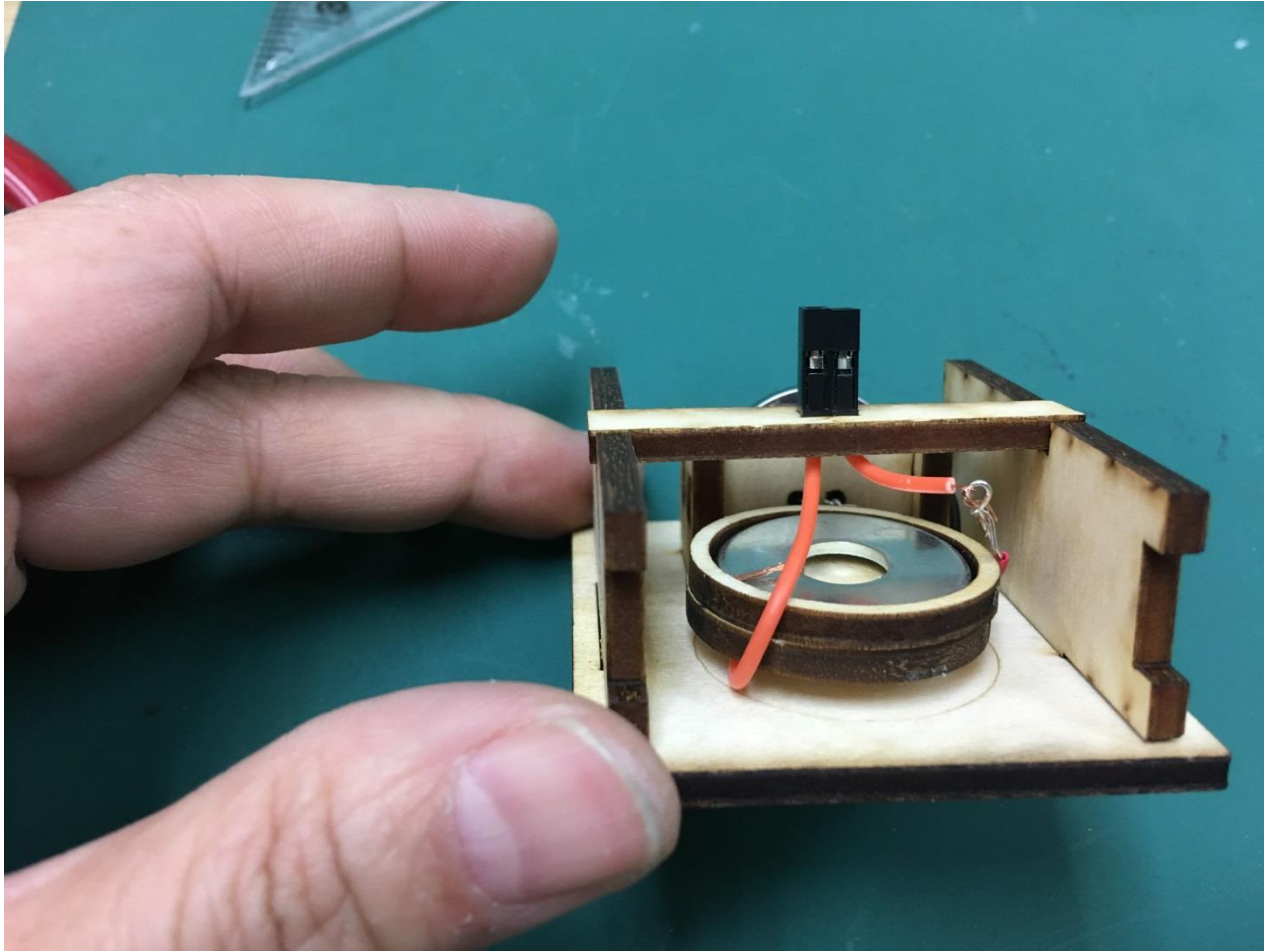
3



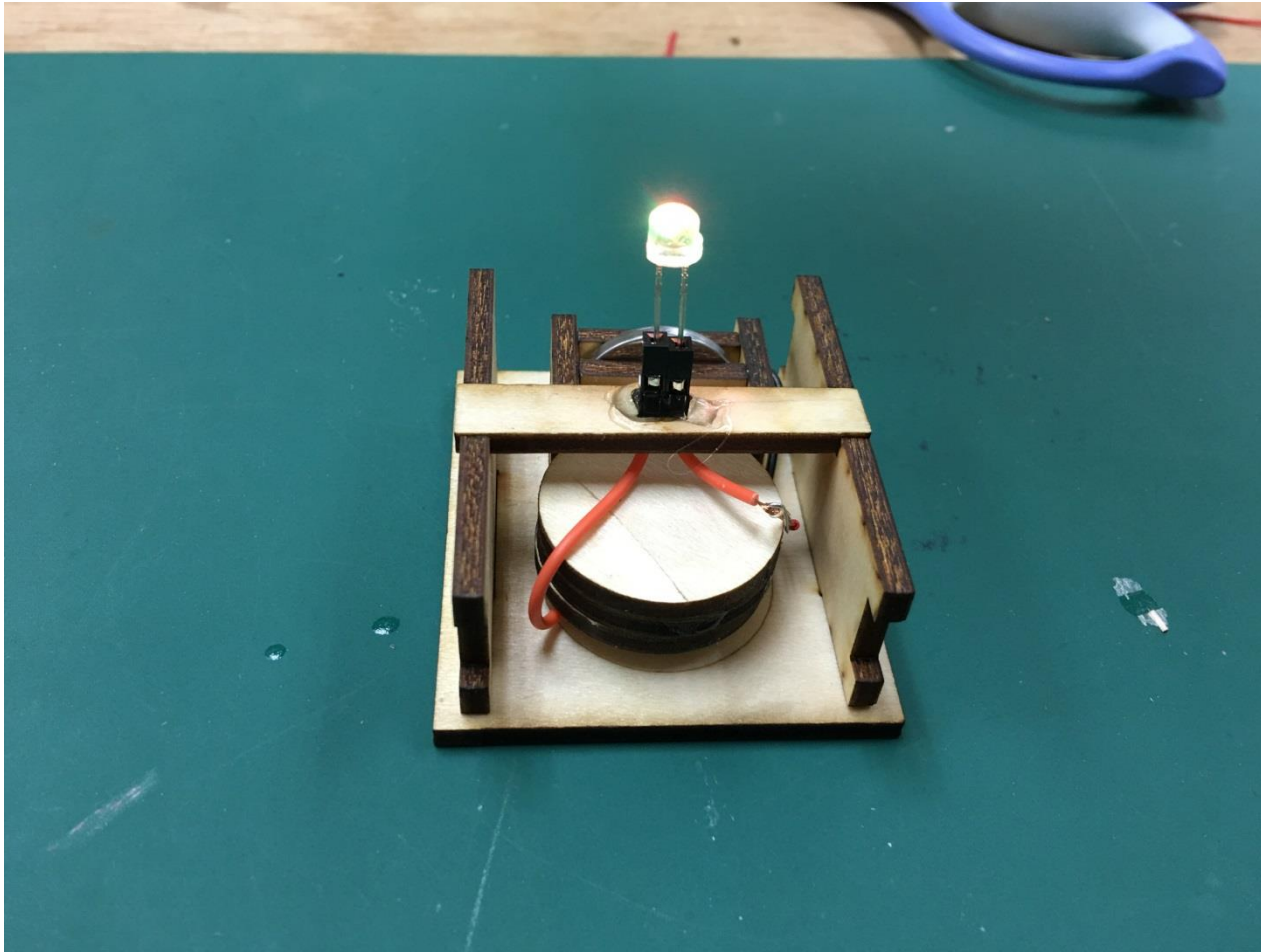
固定開關



將杜邦線固定



測試LED會不會亮



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整理好線，將全部側板黏上



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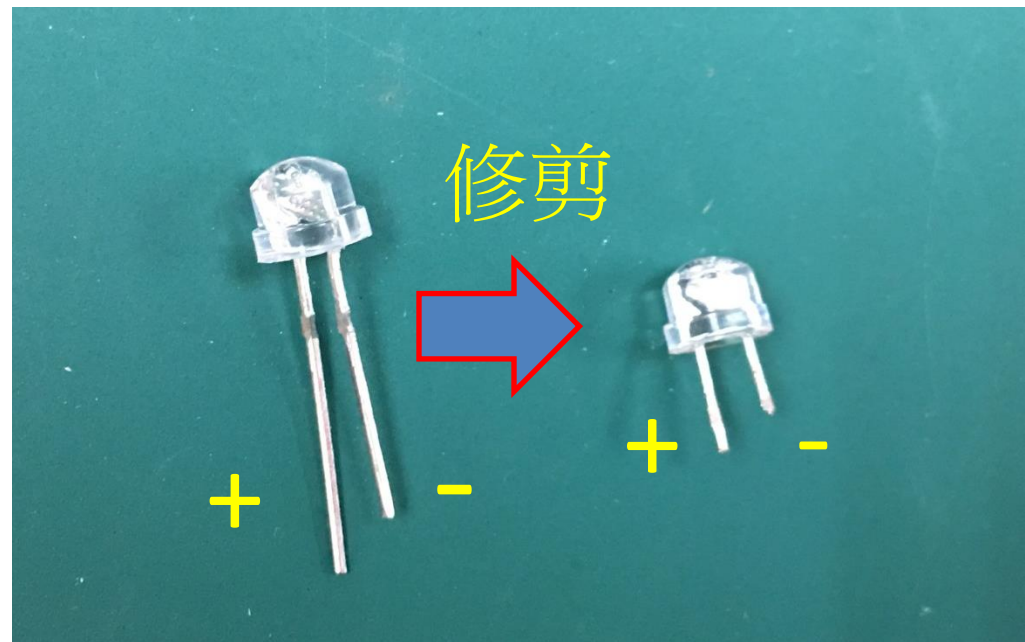
杜邦頭可以固定在木片上



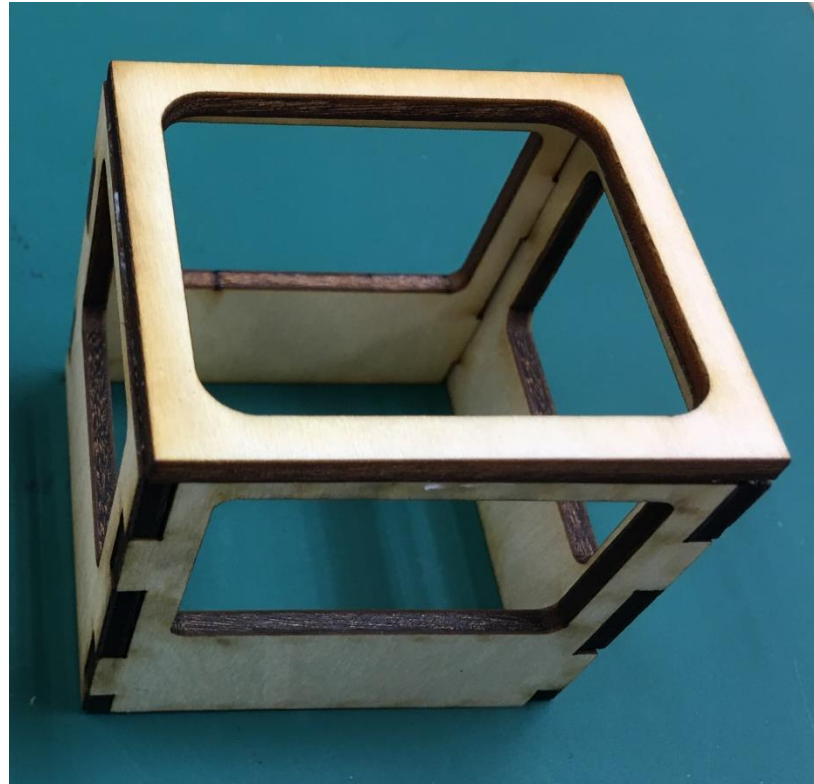
FANG LIAO
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修剪LED燈

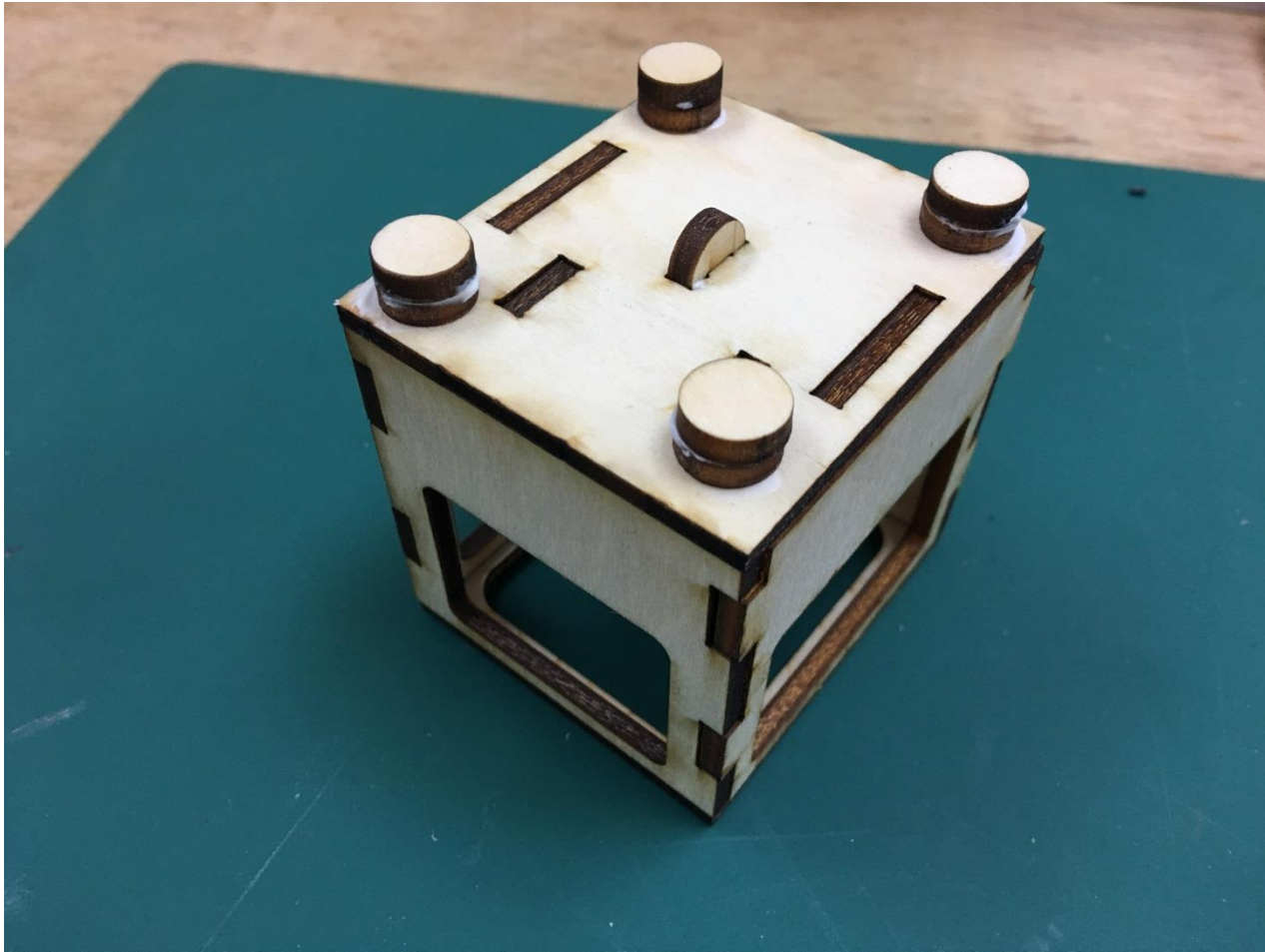
- 將LED燈剪短一點
- 並且正極還是保持比負極長一點點，方便分辨正負極



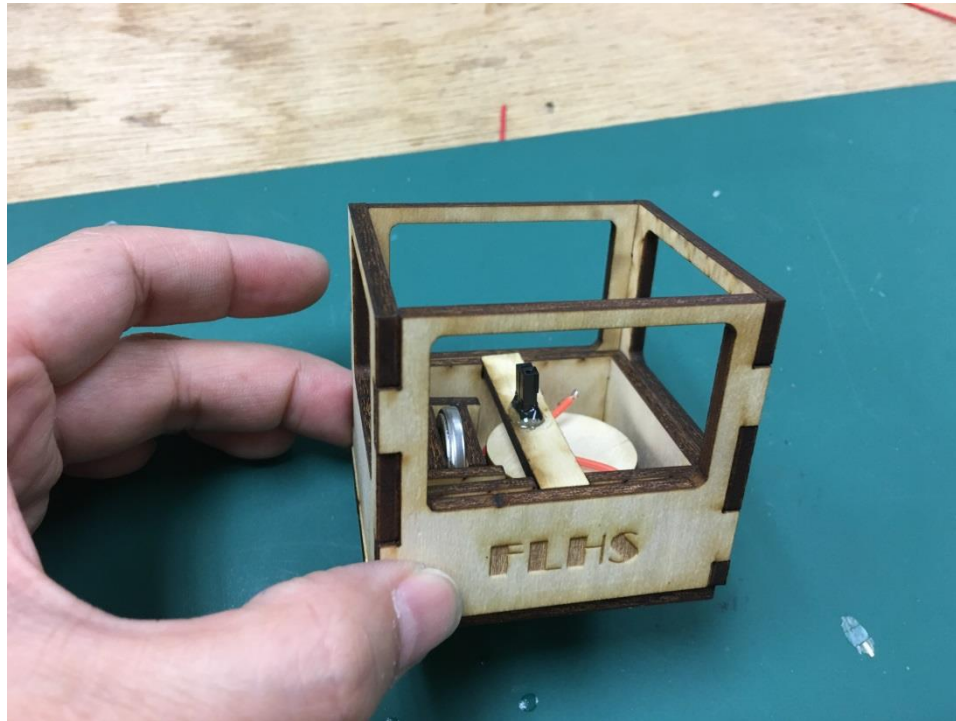
將木框組裝



完成底座



大功告成囉~~



大家可以隨意更換木框的圖案，紙張的材質，看看會不會有不同的效果喔…



FANG LIAO
HIGH SCHOOL MAKER

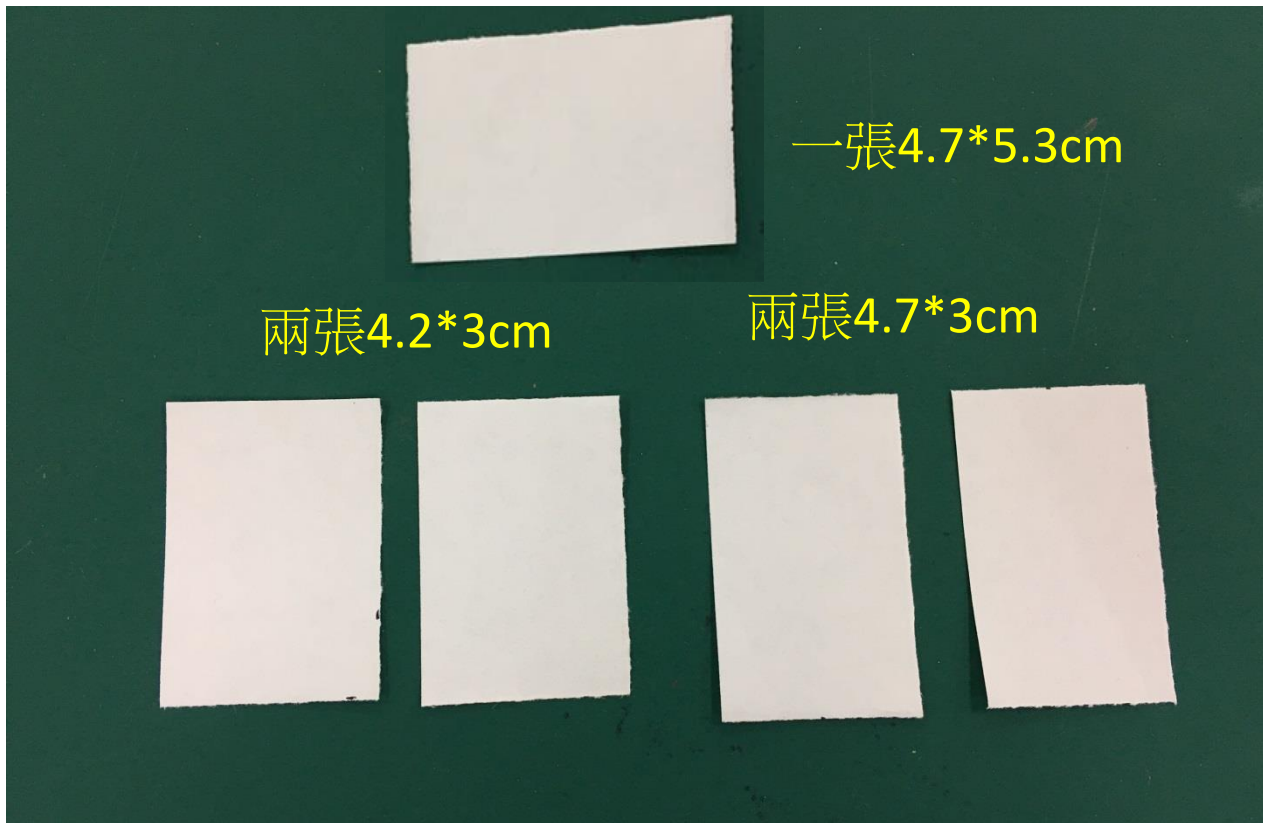
- 接下來的時間就是讓同學自由發揮的時間了
- 老師可以自行決定此部分要在學校完成還是讓同學回家拿不同材質的紙當燈布，再帶到學校分享



將紙張裁切，並畫上喜歡的圖案



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將畫好圖案的紙張黏在木框內側

