

# MR25X ESC CIRCUIT BOARD WIRING DIAGRAM

## MR25X ESC 電路板組裝說明

**ALIGN**

### SPECIFICATION 商品規格

1. Input Voltage: 11.1V~14.8V(3S~4S Li-Po)
2. Max Continuous Current: 30A
3. Operating Temperature: -5°C~45°C(23°F~113°F)

1. 輸入電壓: 11.1V~14.8V(3S~4S Li-Po)
2. 最大持續耐電流: 30A
3. 工作溫度: -5°C~45°C(23°F~113°F)



[M425038XXW]  
MR25X ESC Circuit Board  
MR25X ESC 電路板

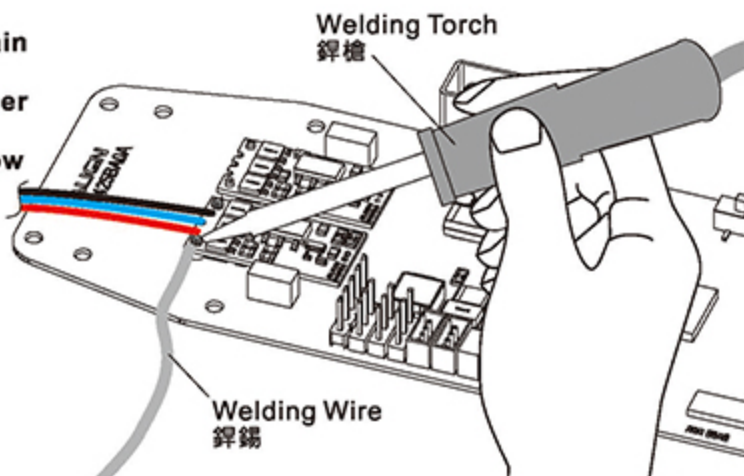
### FEATURE 特性說明

1. Adopt the latest BL-HeliS ESC technology with the latest MCU microprocessor, supporting 48MHz processing rate double times faster than the original BL-HeliS ESC system, showing excellent performance than ever.
  2. MOSFET with independent micro drive chip, small but support powerful output, fast response 10 times faster than the general MOSFET in the market.
  3. Specially design with split-type 30A ESC, easy for assembly and maintenance.
  4. Utilized high quality MOSFET with higher withstand current from 15A to 30A supporting much powerful output, allow to make motor reaction much precise and faster.
  5. It provides faster signal control, fast and precise motor response. With excellent BL-HeliS program features in motor brake function which allow to make motor speed control to be more precise and much delicate for more reliable and faster flight performance.
1. 採用最新款BLHeliS電變程式，搭配最新款MCU微處理器，處理速度高達48MHz，反應速度比原BLHeliS還快上2倍，會有更優異的性能表現。
  2. MOSFET採微型獨立驅動晶片，具備體積小、驅動電流大、響應快的優點，速度比一般驅動方式快上10倍以上。
  3. 電變為獨立可分離設計，讓電變維修更換更簡單、更方便。
  4. 採用高品質MOSFET，耐電流由15A提升至30A，支援更高動力輸出，讓油門反應更快、更立即。
  5. 它能提供更快的訊號控制，使得馬達反應更快速、更精準。搭配優質BLHeliS程式，具有馬達煞車功能，讓馬達轉速控制更準確，操控手感更細膩，飛行動作更確實、更快速。

### STEP 1 步驟 1

Remove the canopy and upper plate from the main body of the MR25X, unplug the connector of the circuit board, then using a welding torch unsolder the wire joints to allow to take the MR25X ESC circuit board out. Please follow and refer to below diagram :

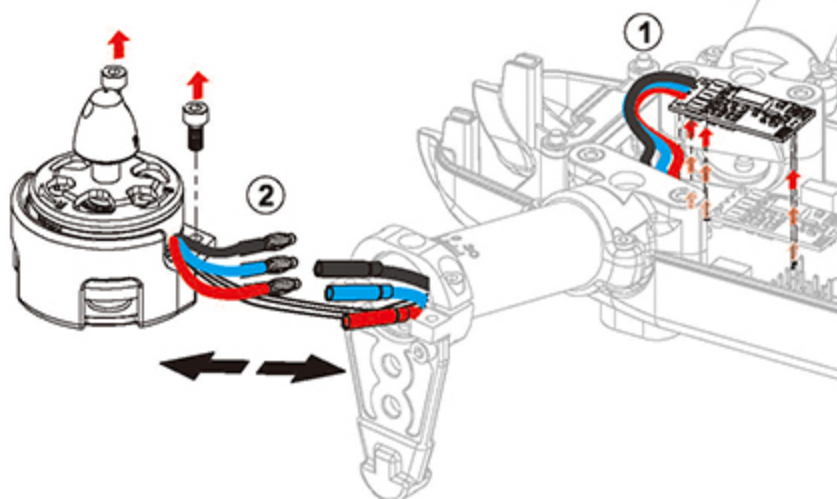
拆下機殼將上側板及排線暫時拆除，將需更換的MR25X ESC 電路板使用銲槍搭配銲錫解焊。解焊點如下圖所示：



### STEP 2 步驟 2

Loosen and remove the Socket Button Head Screws of motor, then unplug the motor wires, gently pull out the MR25X ESC motor wires.

移除馬達上的圓頭內六角螺絲將馬達連接線拔除，順著軸管拉出 MR25X ESC 馬達線。

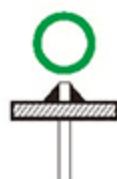




### STEP 3 步驟3

Carefully place a new MR25X ESC Circuit Board on the Main Board, next step to Insert the pins and copper bolt of the PCB into the correct positions, then soldering. Please carefully check every soldering joints, pay attention to the soldering time and temperature, overheating may damage to the electronic components or cause the short circuit. Be sure It is no any false welding on there.

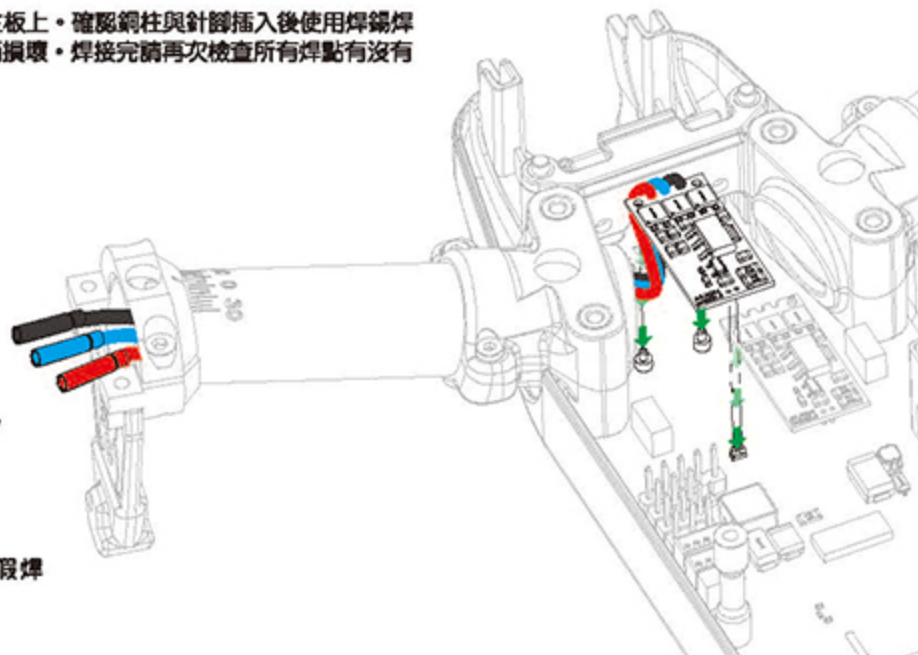
更換新的MR25X ESC 電路板，將電路板裝到主板上。確認銅柱與針腳插入後使用焊錫焊接，焊接的時間勿過長，避免電子元件因過熱而損壞。焊接完請再次檢查所有焊點有沒有“假焊”現象！確認焊點與焊點間有沒有短路。



Correct solder joint  
正確的焊點



Too much solder may cause false welding which looks like beehive-shape on surface.  
焊錫太多表面呈蜂窩狀的假焊



### STEP 4 步驟4

After completed PCB soldering, then connect the motor wires. Be aware of there has difference rotated direction between L/R motor, please connect the motor wires following correct orientation.

焊好MR25X ESC 電路板後，連接馬達線時，請注意馬達正逆轉方向不同，請依下圖所示連接馬達線。

#### M1/M3

Red紅   Black黑

Blue藍   Blue藍

Black黑   Red紅

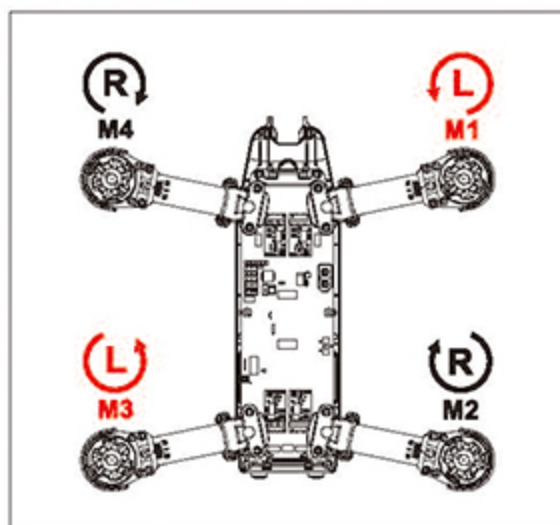
#### M2/M4

Red紅   Red紅

Blue藍   Blue藍

Black黑   Black黑

#### MOTOR ROTATION DIRECTION DIAGRAM 馬達轉向示意圖



#### WARNING 警告

When a MR25X ESC Circuit Board is completed to replace, please carefully to check the rotation direction for each motor, propeller. They must all be the same L/R rotation orientation. Incorrect assembly or modifications(s) may cause unexpected results or bodily injuries.

更換好MR25X ESC電路板後，請務必檢查馬達、螺旋槳L/R轉向，否則將會造成機體升空後翻滾、撞毀，嚴重的將導致不可預期的意外發生。