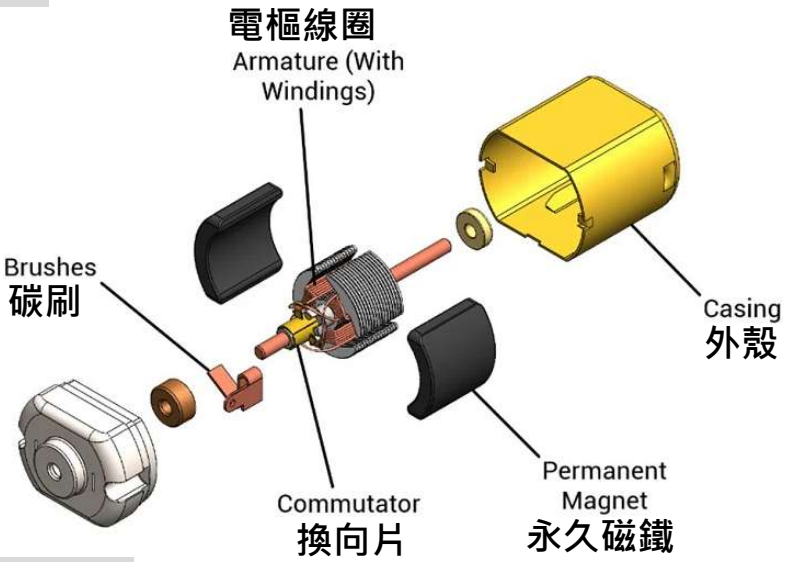
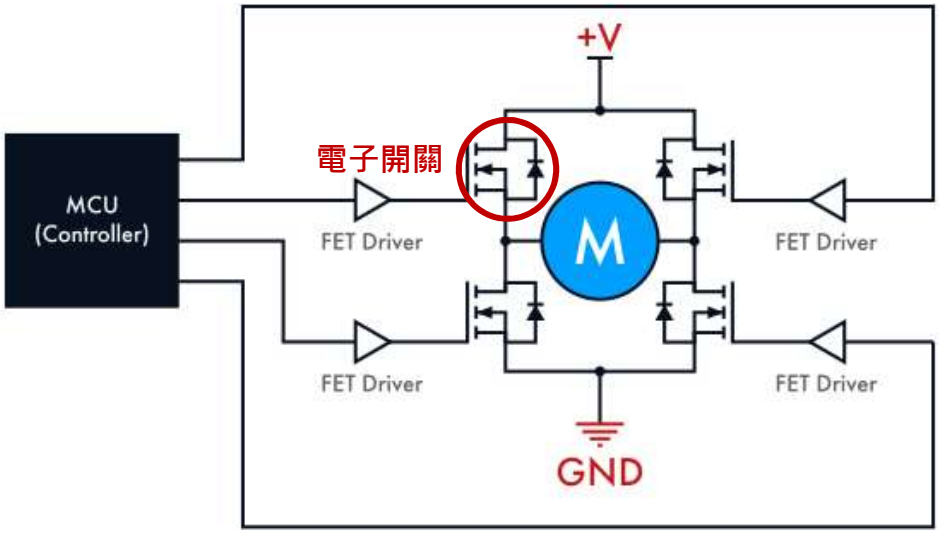
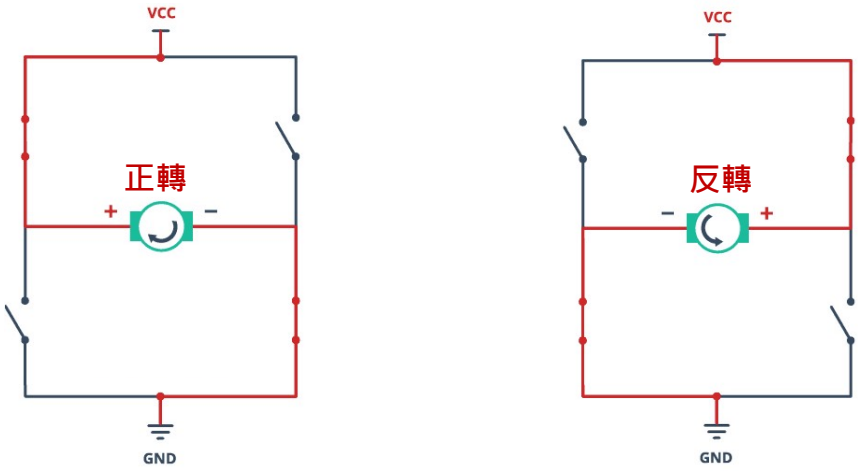
直流馬達構造



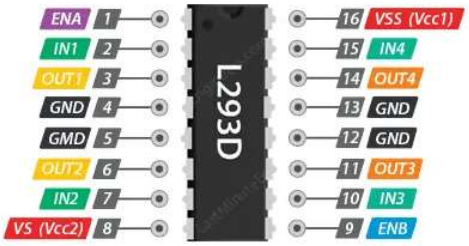
直流馬達驅動方式



直流馬達轉向控制



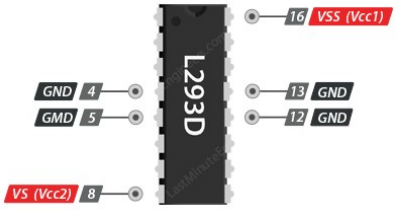
直流馬達驅動 IC



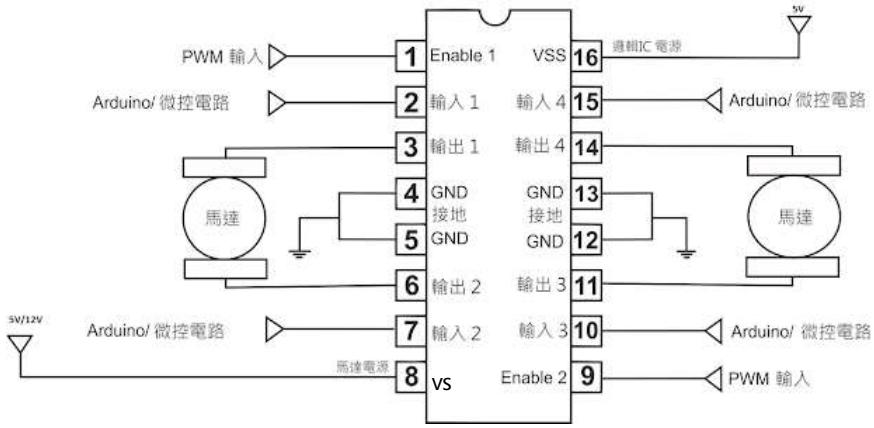
VS (Vcc2) 馬達外接電源 4.5 V ~ 36V

VSS (Vcc1) IC 供電電源 5V.

GND 共同接地腳位

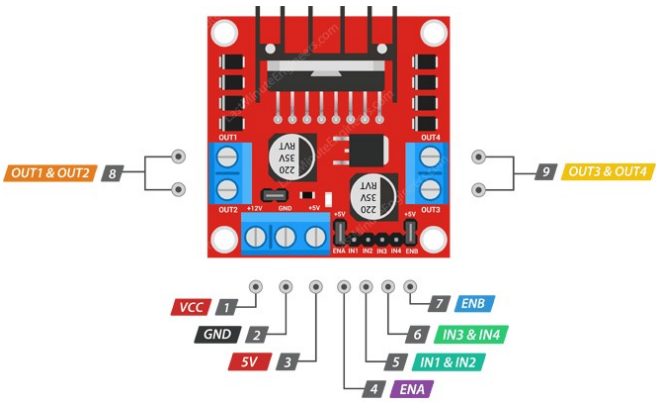


L293D 是一顆用雙路直流馬達的控制器，用這顆 IC 可以用來驅動一般的小型馬達/玩具馬達之類的，相當方便。其內部結構大概就是一個 4 路半 H 橋式驅動電路。

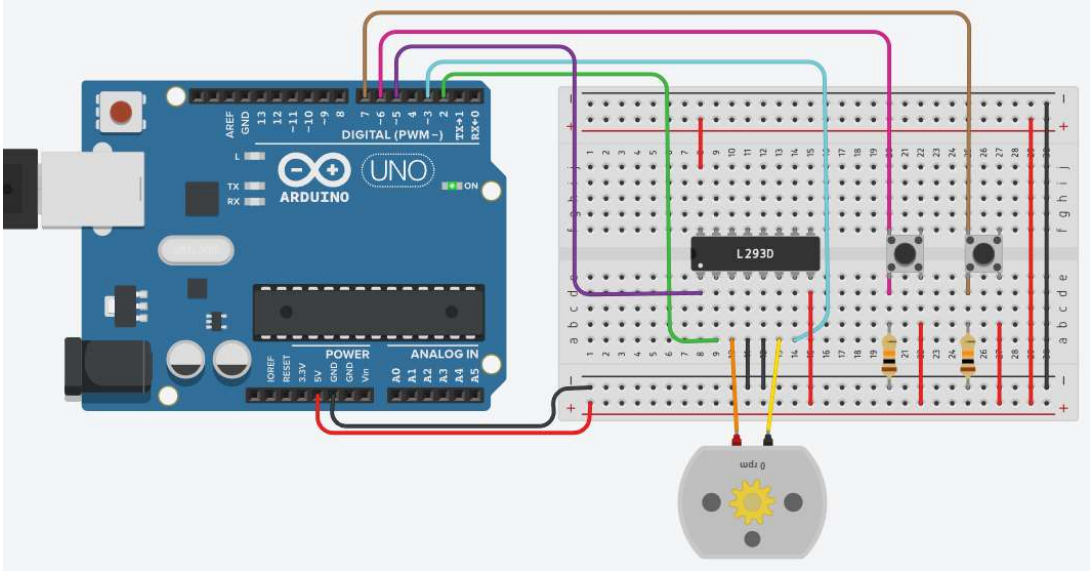


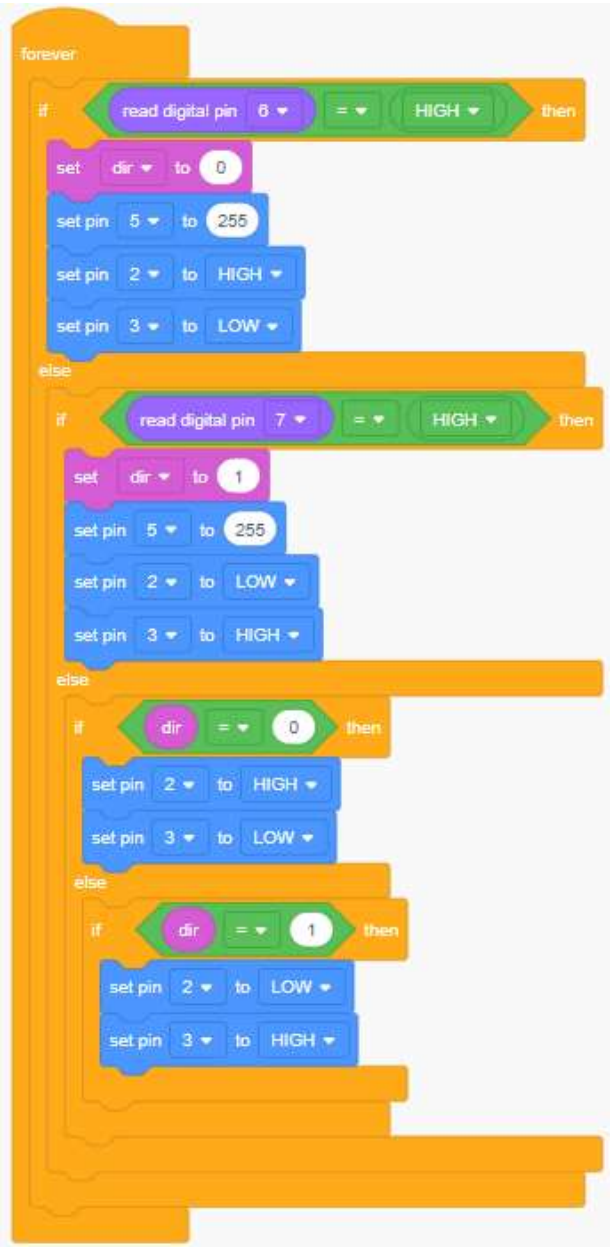
Pin 2 (IN1) 與 Pin 7 (IN2) 屬於一對，Pin 10 (IN3) 與 Pin 15 (IN4) 也屬於一對。Pin 1 (ENA) 與 Pin 9 (ENB) 雖然做為 Enable 接腳，但是也可以輸入 PWM 訊號來控制馬達出力的力度。Pin 8 (VS)是提供給馬達的額外電力，可以獨立供給，也可以和 Pin 16 的 Vcc 共用。

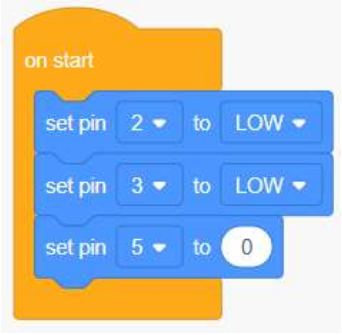
直流馬達驅動模組 L298N



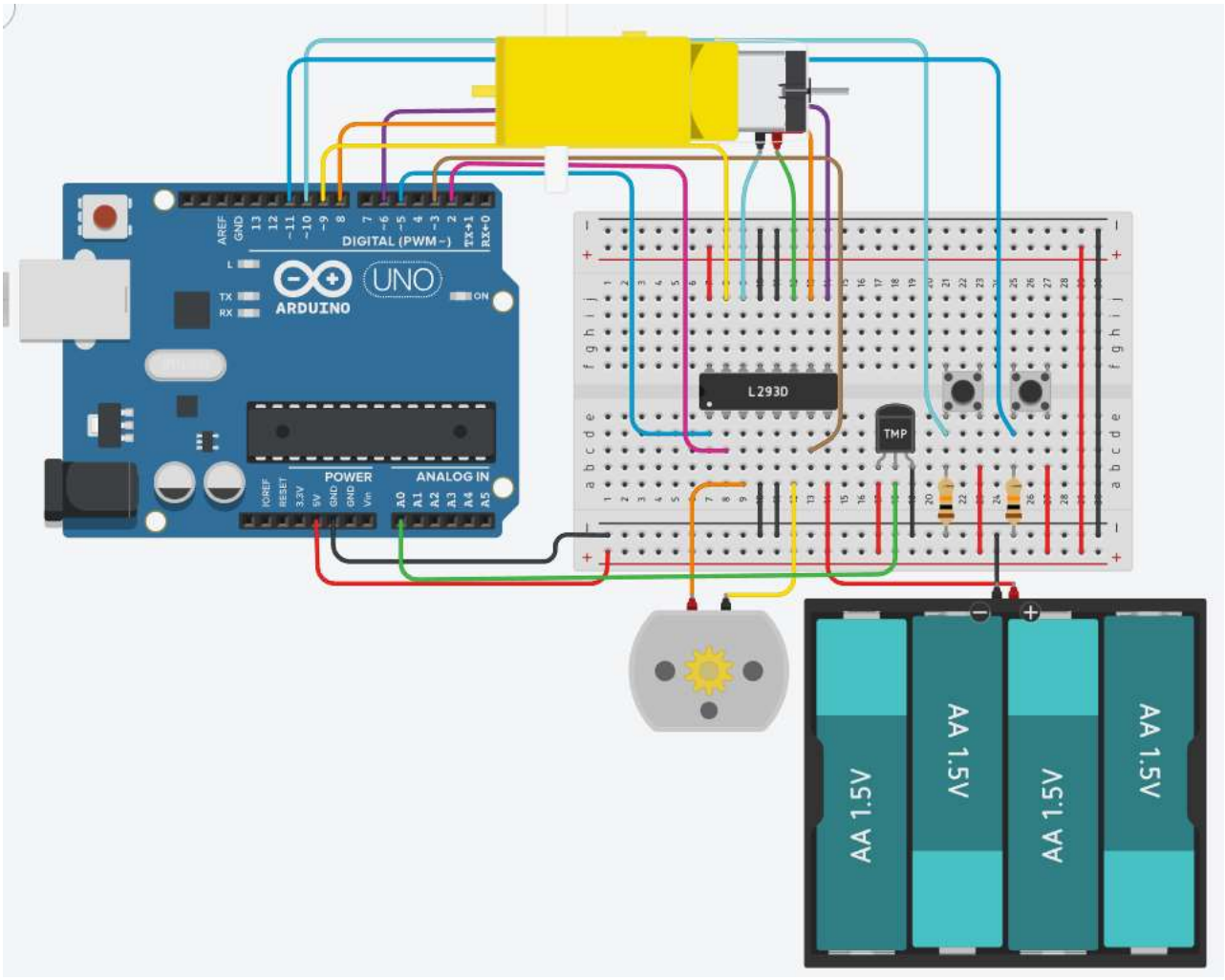
直流馬達正反轉控制

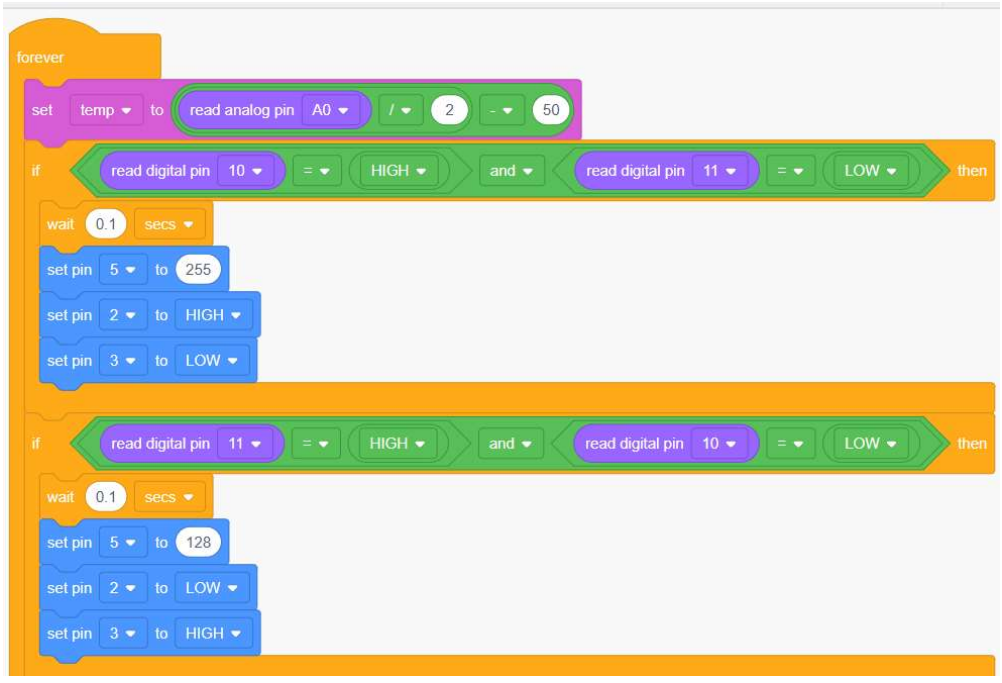

DIGITAL (PWM~)
UNO
ARDUINO
POWER
ANALOG IN
L293D

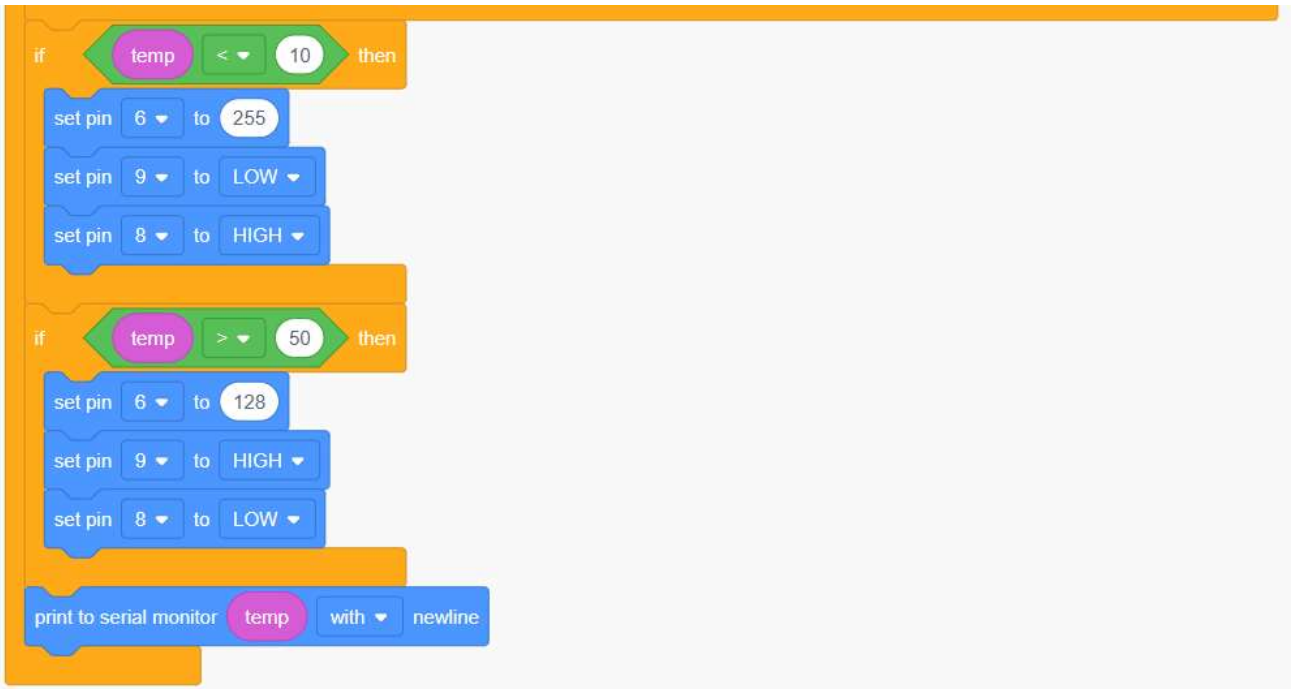

forever
if read digital pin 6 = HIGH then
set dir to 0
set pin 5 to 255
set pin 2 to HIGH
set pin 3 to LOW
else
if read digital pin 7 = HIGH then
set dir to 1
set pin 5 to 255
set pin 2 to LOW
set pin 3 to HIGH
else
if dir = 0 then
set pin 2 to HIGH
set pin 3 to LOW
else
if dir = 1 then
set pin 2 to LOW
set pin 3 to HIGH


on start
set pin 2 to LOW
set pin 3 to LOW
set pin 5 to 0

溫度感測器控制直流馬達(自動曬衣架)






if temp < 10 then
set pin 6 to 255
set pin 9 to LOW
set pin 8 to HIGH
if temp > 50 then
set pin 6 to 128
set pin 9 to HIGH
set pin 8 to LOW
print to serial monitor temp with newline

直流馬達正反轉控制+LCD 顯示