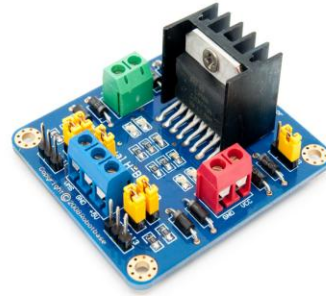## L298 Dual H-Bridge Motor Driver

Double H driver module uses ST L298N dual full-bridge driver. It is a high voltage, high current dual full-bridge driver designed to accept standard TTL logic levels and drive inductive loads such as relays, solenoids, DC and stepping motors.

Features

- Light weight, small dimension
- Super driver capacity
- FWD protection
- Heavy load Heat sink
- Power selection switch
- 4 pull up resistor switch
- 2 DC motor/ 4 coil dual phrase stepper motor output
- Motor direction indication LED
- 4 standard mouting holes

Specifications

- Driver: L298
- Driver power supply: +5V~+46V
- Driver peak current: 2A
- Logic power output Vss: +5~+7V (internal supply +5V)
- Logic current: 0~36mA
- Controlling level: Low -0.3V~1.5V, high: 2.3V~Vss
- Enable signal level: Low -0.3V~1.5V, high: 2.3V~Vss
- Max drive power: 25W (Temperature 75 ℃)
- Working temperature: -25℃~+130℃
- Dimension: 60mm*54mm
- Driver weight: ~48g

Hardware Installation
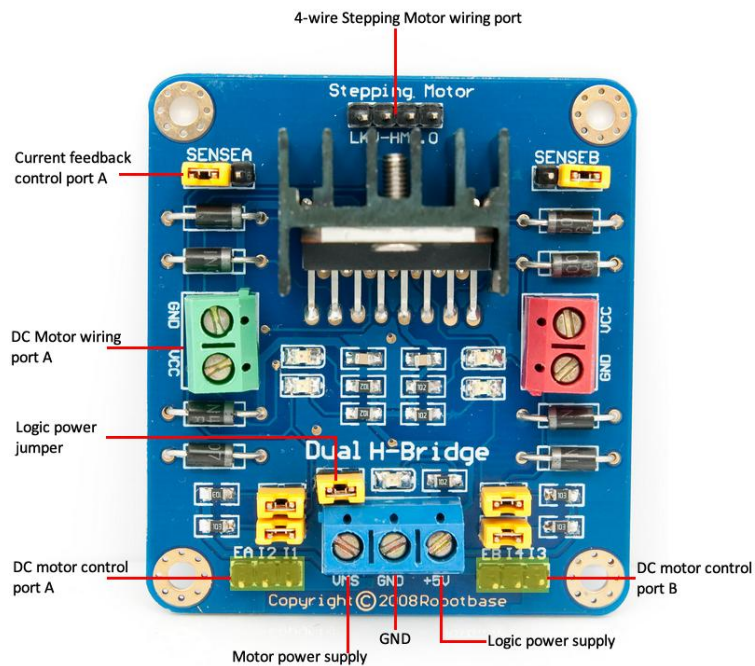
Double H driver module can drive two DC motors at the same time.
Port A is completely symmetrical as port B on the board.

DC motor input port A has three pins, I1, I2 and EA. I1 and I2 are digital ports which are used to control the direction of motor, EA is connecting with PWM port of control board to control the speed of motor.
If I1=1and I2=0, the motor rotates clockwise.
If I1=0 and I2=1, it rotates anticlockwise.
If I1=I2，it stops rotating.

EA	I1	I2	Motor A status
》0	0	1	Clockwise rotation
》0	1	0	Anticlockwise rotation

Normally we do not need to connect wire to supply logic power.
Only if the motor power supply is +5V～+7V or +18V～+46V we have to take off the logic power jumper and connect 5v to supply logic power.
We can control 4-wire stepping Motor the same way as two DC motors with the signals from EA,I1,I2 and EB,I3,I4.

Arduino sample program

```
int pinI1=8;//define I1 port
int pinI2=9;//define I2 port
int speedpin=11;//define EA(PWM speed regulation)port
void setup()
{
   pinMode(pinI1,OUTPUT);//define this port as output
   pinMode(pinI2,OUTPUT);
   pinMode(speedpin,OUTPUT);
}
void loop()
{
   analogWrite(speedpin,100);//input a value to set the speed
   delay(2000);
   digitalWrite(pinI1,LOW);// DC motor rotates clockwise
   digitalWrite(pinI2,HIGH);
   analogWrite(speedpin,100);
   delay(2000);
   digitalWrite(pinI1,HIGH);// DC motor rotates anticlockwise
   digitalWrite(pinI2,LOW);
   analogWrite(speedpin,100);
   delay(2000);
   digitalWrite(pinI1,HIGH);// DC motor stop rotating
   digitalWrite(pinI2,HIGH);
   delay(2000);
}
```
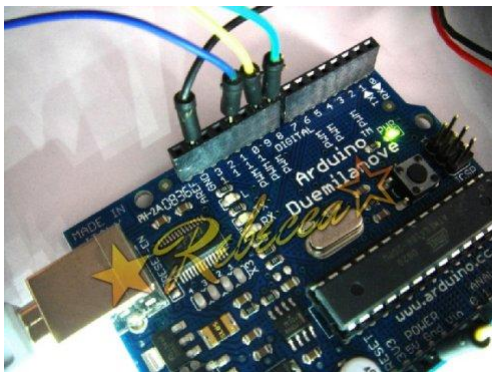

Revision History

Rev.	Descriptions	Release date
1.1	Initial public release	30.06.2010