EN: This Datasheet is presented by the manufacturer.

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L9110 2-CHANNEL MOTOR DRIVER
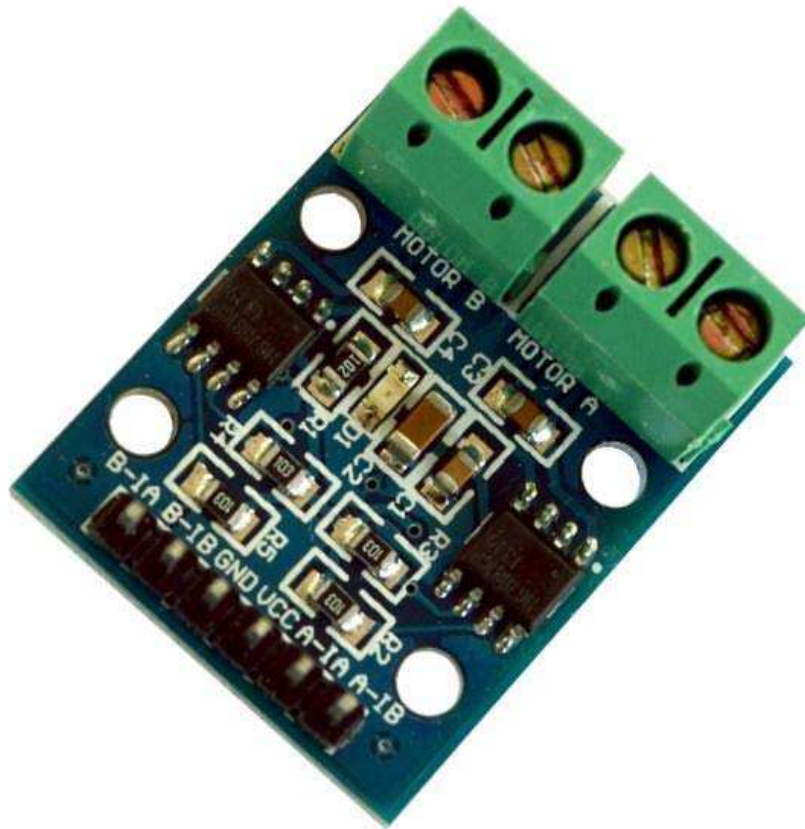
Description

The L9110S 2-Channel motor driver module is a compact board that can be used to drive small robots. This module has two independent motor driver chips which can each drive up 800mA of continuous current. The boards can be operated from 2.5V to 12V enabling this module to be used with both 3.3V and 5V microcontrollers.

A set of female header pins is used to connect this module to a microcontroller. The motors are attached via two sets of screw terminals.

A PWM Pulse Width Modulation signal is used to control the speed of a motor and a digital output is used to change its direction. This module can also be used to

drive a single four line two phase stepper motor. Four holes make this board easy to mount onto your robot or other project.

Specifications

- On-board 2 L9110 motor control chip
- Module can be driven by two dc motors at the same time or one phase 4 line 2 type stepping motor
- Input voltage: 2.5-12V DC
- Each channel has a continuous output current 800 ma
- PCB Size: 29.2mm x 23mm

Pin Configuration
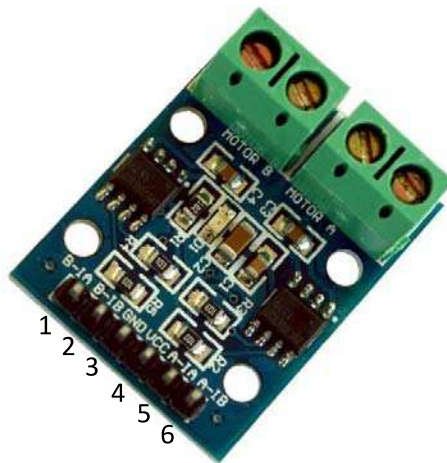
1. B-IA: Motor B Input A
2. B-IB: Motor B Input B
3. GND: ground
4. VCC: 2.5V-12V DC
5. A-IA: Motor A Input A
6. A-IB: Motor B Input B

Schematic Diagram
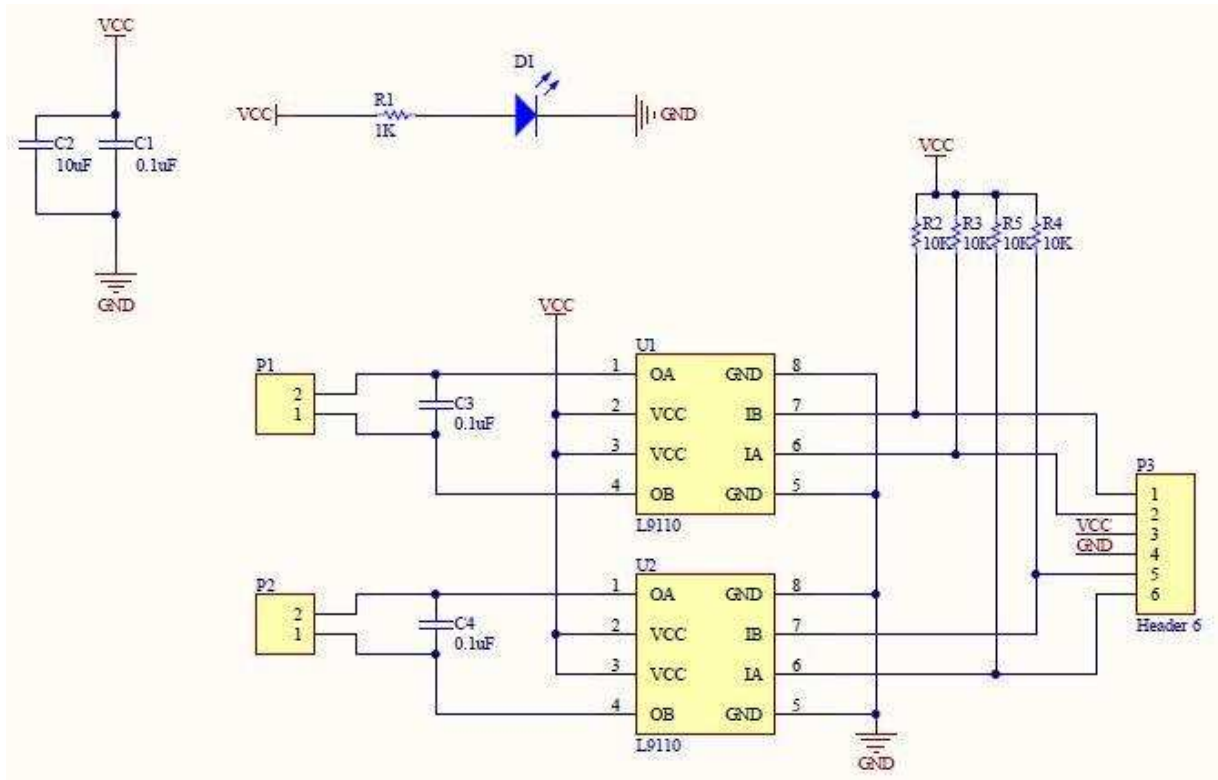
Sample Sketch

```
const int AIA = 3;
const int AIB = 4;
const int BIA = 5;
const int BIB = 6;

byte speed = 255

void setup() {
  pinMode(AIA, OUTPUT);
  pinMode(AIB, OUTPUT);
  pinMode(BIA, OUTPUT);
  pinMode(BIB, OUTPUT);
}
 void loop() {
  forward();
  delay(2000);
  backward();
  delay(2000);
}
```

```
void backward()
{
  analogWrite(AIA, 0);
  analogWrite(AIB, speed);
  analogWrite(BIA, 0);
  analogWrite(BIB, speed);
}

void forward()
{
  analogWrite(AIA, speed);
  analogWrite(AIB, 0);
  analogWrite(BIA, speed);
  analogWrite(BIB, 0);
}
```

How to test

The components to be used are:

- Microcontroller (any compatible arduino)
- L9110 2-channel motor driver
- Pin connectors
- DC motors
- 2.5V-12V DC external power supply

1. Connect the components using pin connectors. VCC pin is connected to a 2.5V-12V DC external power supply which can handle 800mA, GND pin is connected to the GND, the A-IA, A-IB, B-IA, and B-IB pins are connected to the digital I/O pins. Pin number will be based on the actual program code.
2. After hardware connection, insert the sample sketch into the Arduino IDE.
3. Using a USB cable, connect the ports from the microcontroller to the computer.
4. Upload the program.

Testing results

Based on the program, the two motors should move forward and backward every two seconds. The orientation may vary depending on the wire connections.