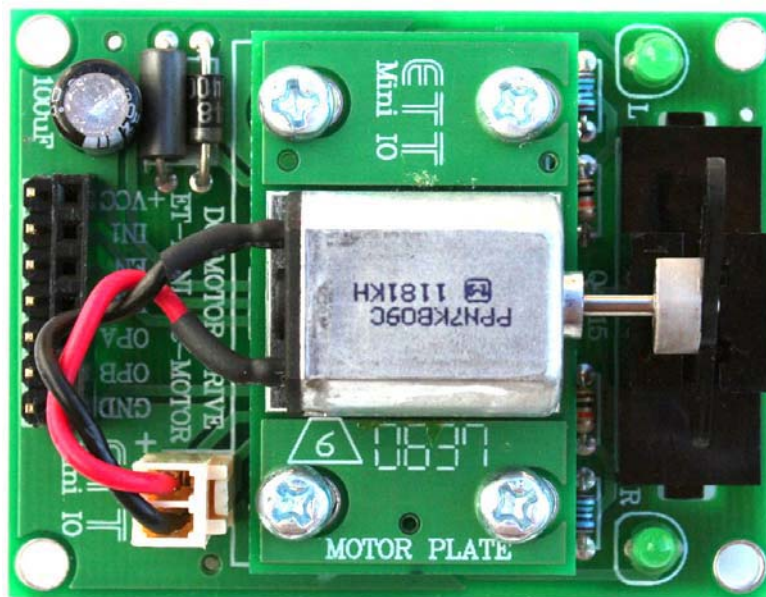


**MR-MINI-DC-MOTOR™ Mini DC MOTOR BOARD
User Manual**

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MR-MINI-DC-MOTOR™ Mini DC MOTOR BOARD

User Manual

Description

The MR-MINI-DC-MOTOR is a 5V DC motor that can rotate both directions left and right. The rotation cycle of the motor can be read by on-board opto-sensor. The feature of using connector and sending logic to control rotation are shown below in figure 1. Function of IN1 and IN2 pins are directional controller. EN pin is and enable the driver circuit. The enable pin is active HIGH. OPA and OPB pins send signal logic HIGH to microcontroller when fan blade of the DC motor cuts the opto-sensor and logic LOW otherwise. It is suitable for reading motor's rotation cycle. PCB size is 2.20" x 1.70"

Specifications:

- +5VDC supply voltage
- Ability to measure the speed of the motor
- The motor can rotate both directions
- Enable pin to shut down driver circuit for conserve the current
- Direction LEDs indicator
- Small and compact in size
- Four mounting holes on each corner
- Male and Female header inputs.

Pin out:

+VCC	IN1	EN	IN2	OPA	OPB	GND
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name	Type	Description
+VCC	PWR	Supply voltage (+5VDC)
IN1, IN2	Input	Rotation direction (see figure 1 for more detail)
EN	Input	Enable motor driver circuit (active high)
OPA, OPB	Output	Output from opto-sensor (logic HIGH when fan blade cut the sensor)
GND	PWR	Supply ground



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Control DC MOTOR								
RIGHT(R)			LEFT(L)			STOP		
EN	IN1	IN2	EN	IN1	IN2	EN	IN1	IN2
1	1	0	1	0	1	0	x	x

FIG 1: Table of control DC-MOTOR

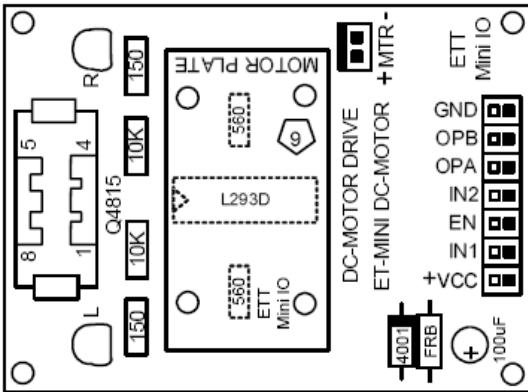


FIG 2: MR-MINI-DC-MOTOR Board Layout

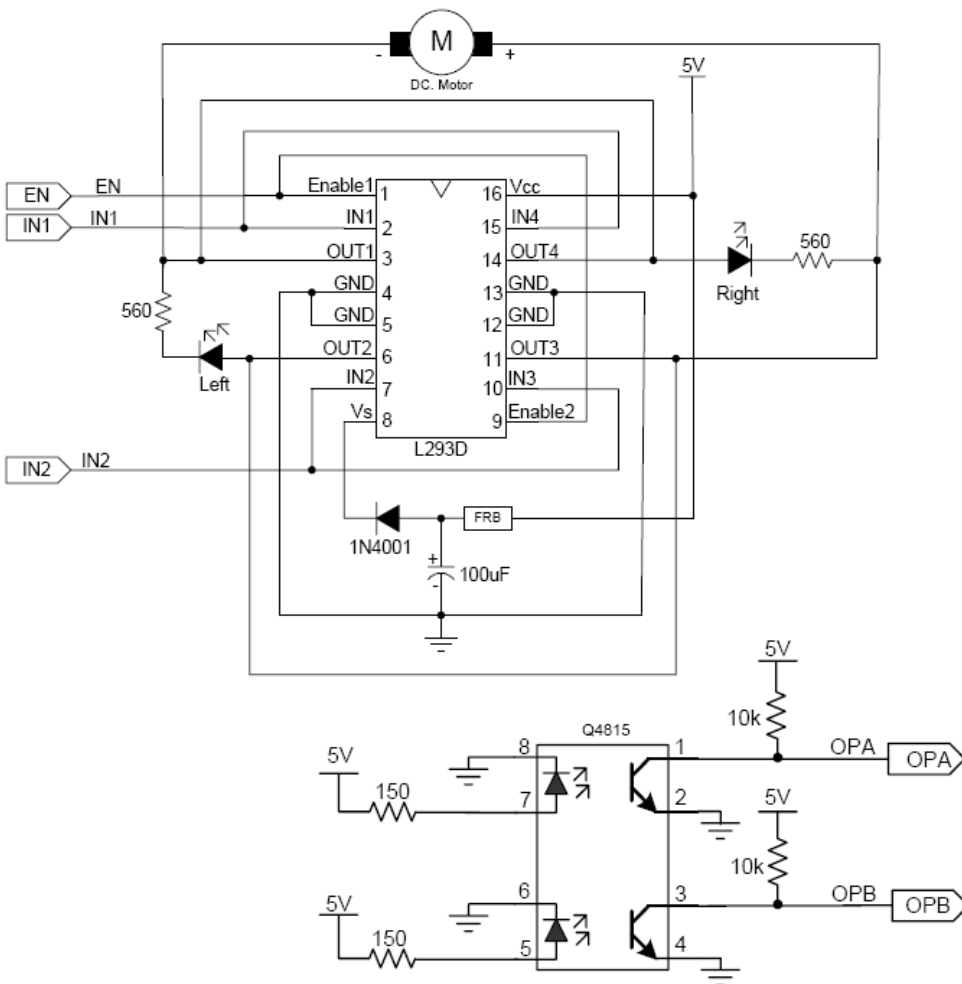


FIG 3: MR-MINI-DC-MOTOR Schematic

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Notes

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