

OpenMV Motor Shield.

1 Features

- TB6612 driver.
- Controls up to 2 DC motors.
- Built-in thermal shutdown circuit.
- Low voltage detecting circuit.
- CW/CCW/short brake/stop function modes.
- Low standby current.
- Operating supply voltage range of 6 V to 9 V.

2 Description

The Motor Shield enables OpenMV cameras to control up to 2 motors. It features the TB6612 DC motor driver with built-in thermal shutdown circuit and low voltage detecting circuit. The OpenMV software and IDE includes scripts for controlling this shield.

Device Information

PART NUMBER	BODY SIZE (NOM)
OPENMV-MOTOR-SHIELD	1.40 in x 1.05 in

3 Applications

- Self-driving cars.
- Controlling actuators.

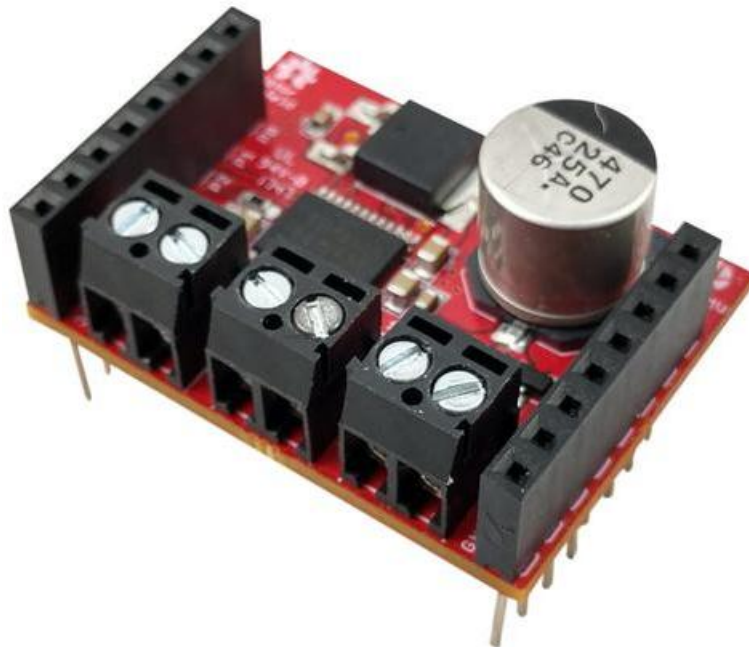
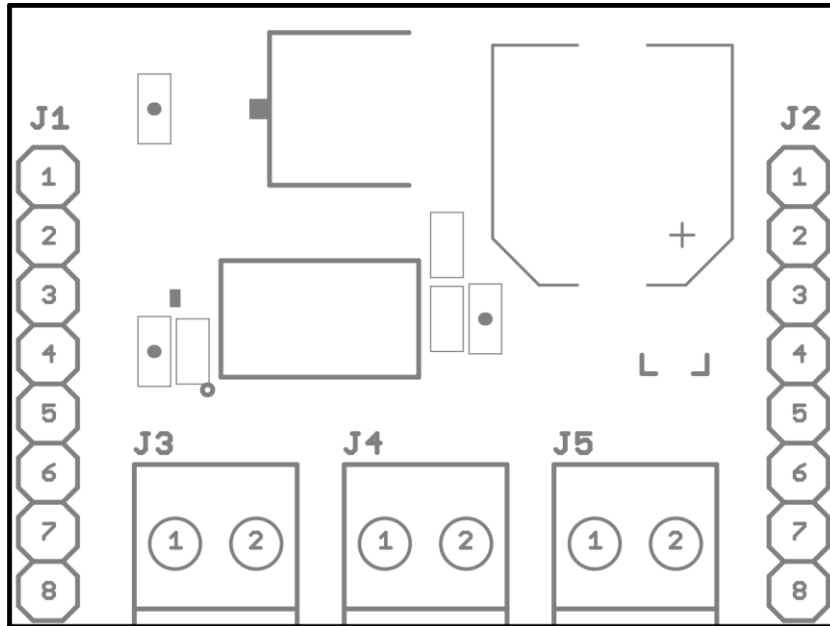


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4 Pin Configurations and Functions



Pin Functions

Pin			Description
Header	No	Name	
J1 Pin Configuration			
J1	1	P0	Channel B input 2
	2	P1	Channel B input 1
	3	P2	Channel A input 2
	4	P3	Channel A input 1
	5	P4	NC
	6	P5	NC
	7	P6	TB6612 Standby (Active low).
	8	3v3	TB6612 input supply (3.3v)
J2 Pin Configuration			
J2	1	RST	NC
	2	BOOT	NC
	3	SYN	NC
	4	P9	NC
	5	P8	PWM channel B speed control input
	6	P7	PWM channel A speed control input
	7	VCC	Regulator output supply (5v/2000mA)
	8	GND	GND
J3 Pin Configuration			
J3	1	A1	Channel A output 1
	2	A2	Channel A output 2
J4 Pin Configuration			
J4	1	B2	Channel B output 2
	2	B1	Channel B output 1
J5 Pin Configuration			
J5	1	GND	GND rail.
	2	VBAT	Regulator input (6v-9v)

5 Electrical Characteristics

5.1 Recommended Operating Conditions

SYMBOL	RATINGS	MIN	MAX	UNIT
V_{bat}	Regulator input supply voltage range.	6.0	9.0	V
V_{3v3}	TB6612 input supply voltage range.	2.7	5.5	V
I_{out}	External output supply current range.		2000	mA
T	Operating Temperature	-40	85	°C

6 Mechanical Information

The following information is the most current data available for the designated device. This data is subject to change without notice and without revision of this document.

