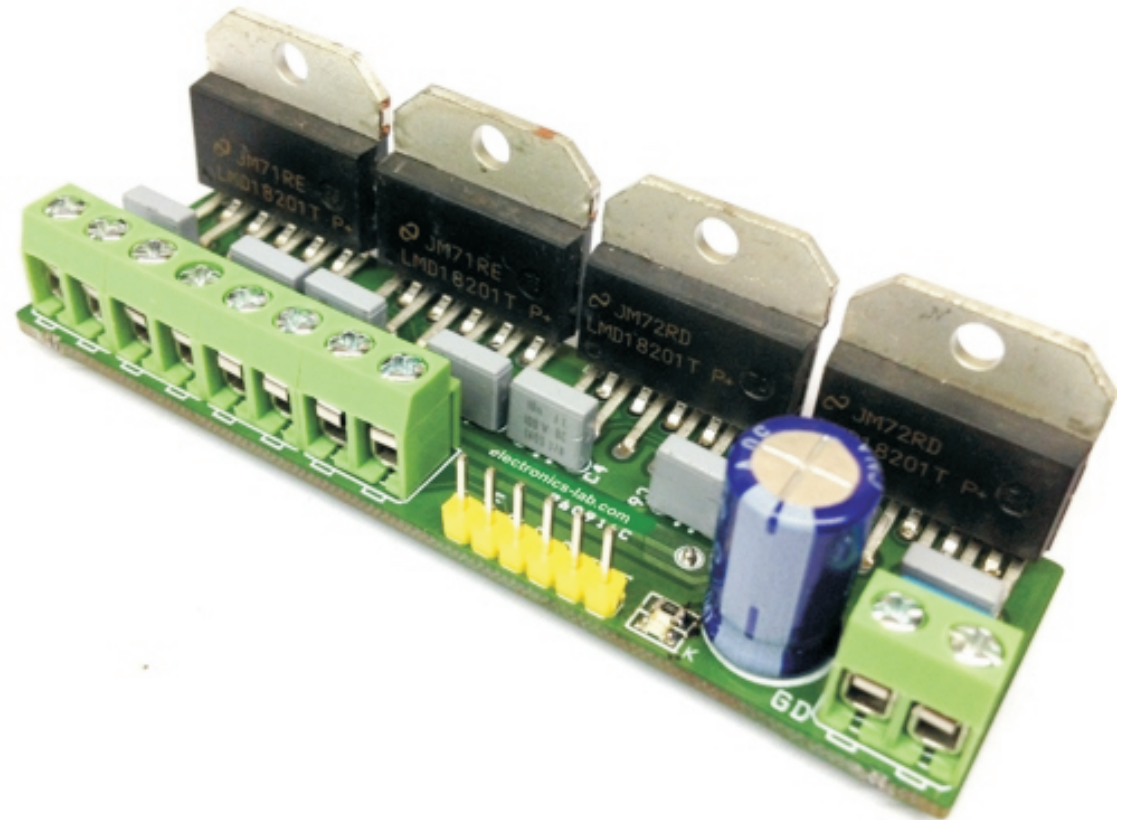


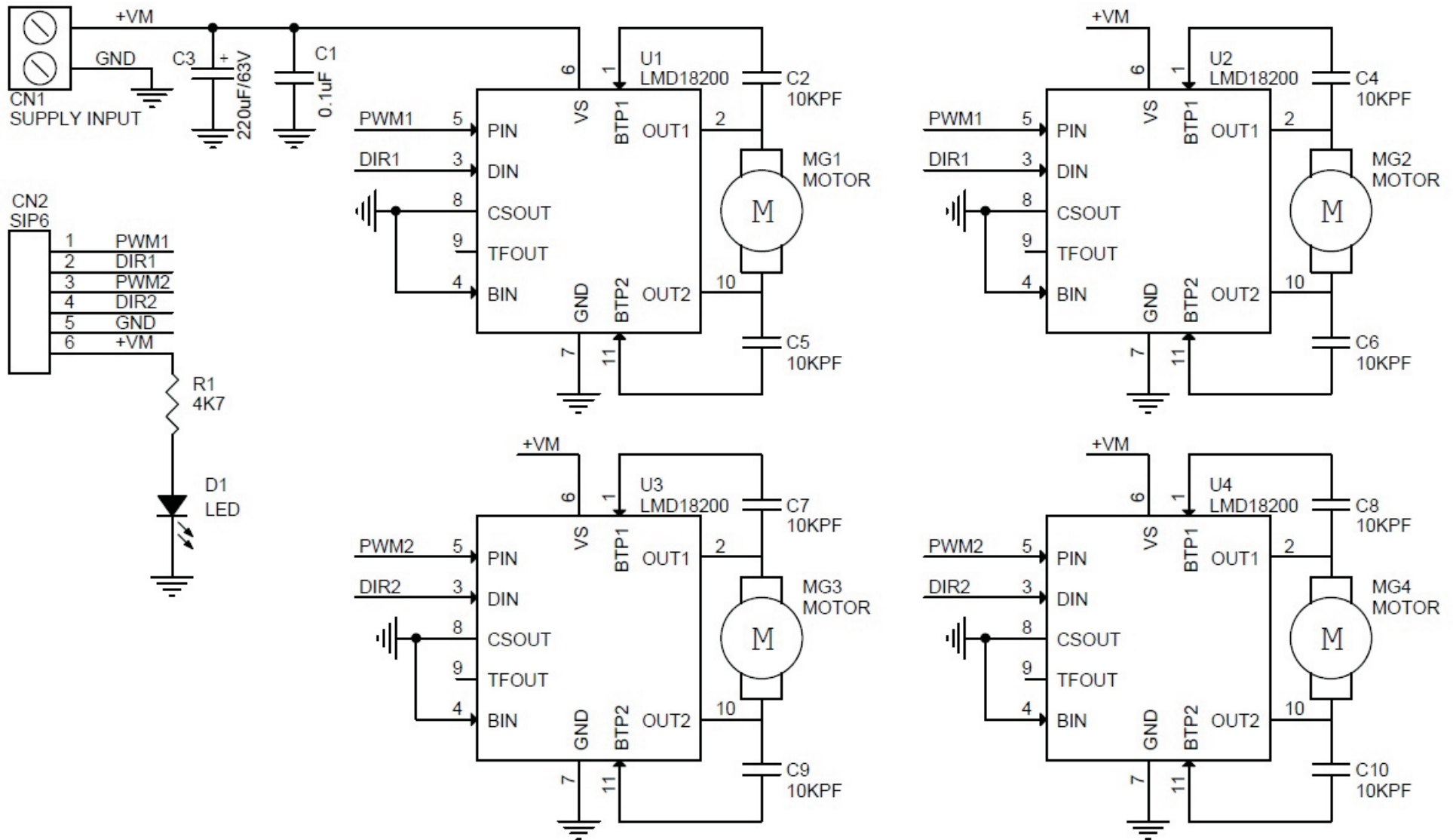
4 Wheel Drive Robot Motor Driver (4X 3Amps LMD18201 H-Bridge)

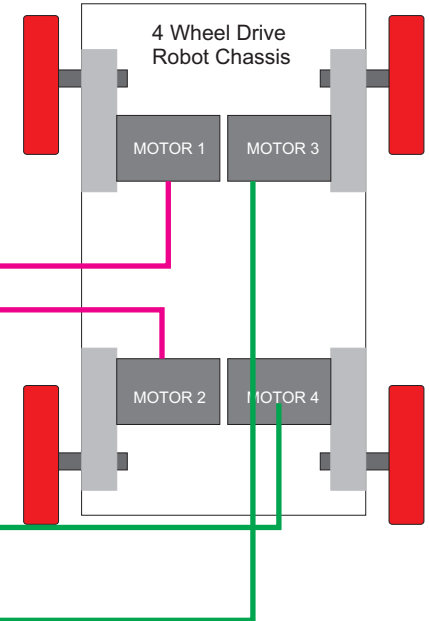
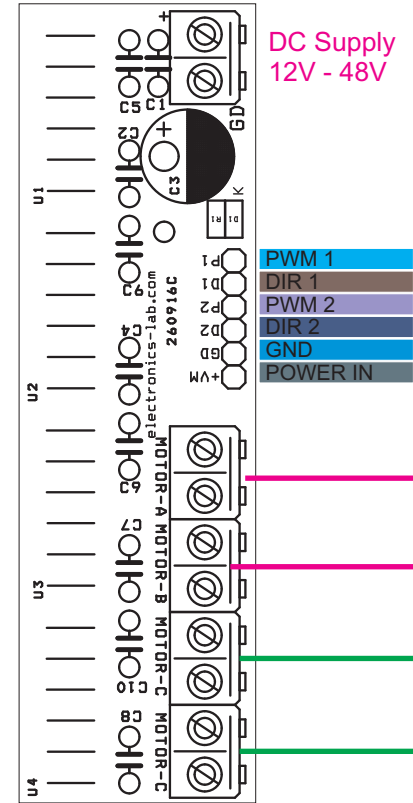
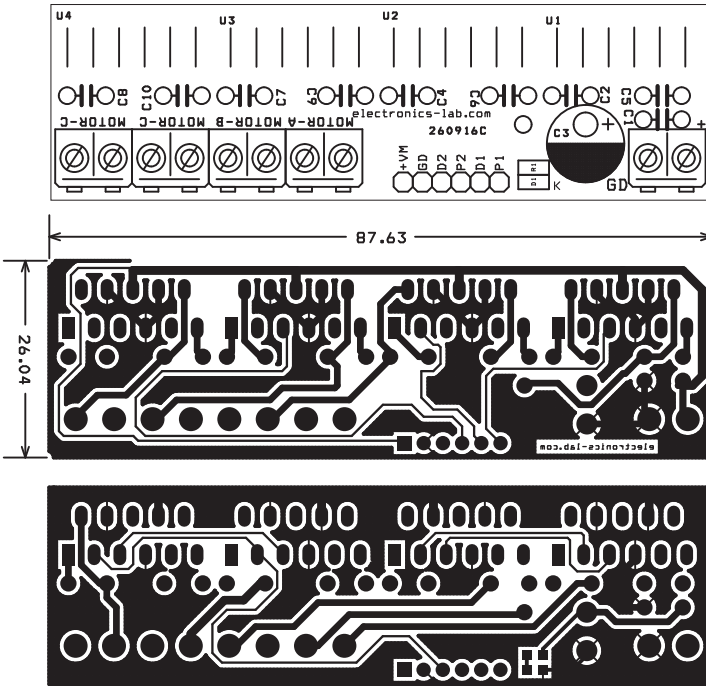
This compact board will help you to drive 4 Wheel Drive Robots, each axis can handle load current up to 3 Amps and supply 12V – 48 V DC. Board required Two PWM and Dir. signals for full 4WD operations mainly differential steering for taking turns left or right or complete 360 degree rotation. The module has been designed around LMD18201 from Texas Instruments. The LMD18201 is a 3A H-Bridge designed for motion control applications. The device is built using a multi-technology process which combines bipolar and CMOS control circuitry with DMOS power devices on the same monolithic structure. Ideal for driving DC and stepper motors; the LMD18200 accommodates peak output currents up to 6A. An innovative circuit which facilitates low-loss sensing of the output current has been implemented.

Features

- Powerful bi-directional DC Motor driver
- Suitable for medium size robot
- Screw-terminals for Power Supply and Motors Connections
- 6-pin Header connector for PWM, direction input
- Delivers Up to 3A X 4 Continuous Output (6A Peak)
- Operates at Supply Voltages 12V – 48V DC
- Low RDS (ON) Typically 0.33Ω per Switch at 3A
- TTL and CMOS Compatible Inputs
- No “Shoot-Through” Current
- Thermal Warning Flag Output at 145°C
- Thermal Shutdown (Outputs Off) at 170°C
- Internal Clamp Diodes
- Shorted Load Protection
- Internal Charge Pump with External Bootstrap Capability







BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	2 PIN SCREW TERMINAL
2	1	CN2	6 PIN HEADER CONNECTOR
3	1	C1	0.1uF
4	8	C2,C4,C5,C6,C7,C8,C9,C10	10KPF
5	1	C3	220uF/63V
6	1	D1	LED SMD 0805
7	4	MG1,MG2,MG3,MG4	2 PIN SCREW TERMINAL
8	1	R1	4K7 SMD 0805
9	4	U1,U2,U3,U4	LMD18200

SIGNAL INPUTS				
ROBOT OPERATIONS	PWM 1	DIR 1	PWM 2	DIR 2
FORWARD	HIGH	HIGH	HIGH	HIGH
REVERSE	HIGH	LOW	HIGH	LOW
TURN LEFT	HIGH	LOW	HIGH	HIGH
TURN RIGHT	HIGH	HIGH	HIGH	LOW

