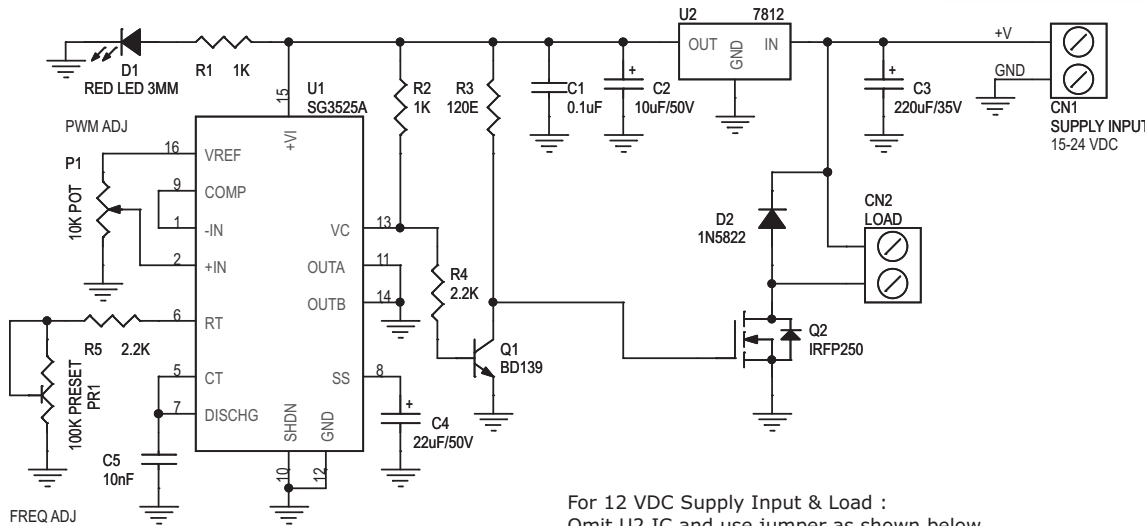


## High Current PWM DC Brushed Motor Speed Controller Using Sg3525 PWM Generator and MOSFET as Driver

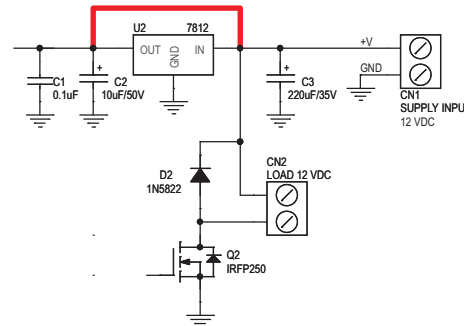
High Current PWM DC motor speed controller is designed around SG3525 IC and high current output driver MOSFET. This project is simple solution to drive any large size DC brushed Motor. High current Mosfet can handle 5Amps continues even more with large size heat sink. Simple to use project to control speed with PWM, Supply input 15 to 24 VDC

- Supply input 15 to 24 VDC
- Load 12 to 24 VDC @ 5 A Ideal (10 A Peak)
- Onboard preset for frequency adjust
- Frequency adjustable 4 KHz to 30 KHz
- PWM Duty cycle 0 to 100% (+/- 5%)
- Potentiometer for dimming adjust
- Soft Start facility
- Clamp diode for protection
- Power-On LED indicator
- Compact design and high quality
- Lamp and supply connection via screw terminal connector
- Four mounting holes of 3.2 mm each
- PCB dimensions 56 mm x 42 mm



SR.	QTY.	REF.	DESCRIPTION
1	1	CN1	2 PIN SCREW TERMINAL CONNECTOR
2	1	CN2	2 PIN SCREW TERMINAL CONNECTOR
3	1	C1	0.1uF
4	1	C2	10uF/50V OR 63V
5	1	C3	220uF/35V
6	1	C4	22uF/50V
7	1	C5	10nF
8	1	D1	RED LED 3MM
9	1	D2	1N5822
10	1	PR1	100K PRESET
11	1	P1	3 PIN BERG CONNECTOR
12	1	Q1	BD139
13	1	Q2	IRFP250
14	2	R1,R2	1K
15	1	R3	120E
16	2	R4,R5	2.2K
17	1	U1	SG3525A/KA3525A
18	1	U2	7812
19	1	POT	10K POTENTIOMETER
20	1	SOCKET	16 PIN DIP IC SOCKET
21	1	HEATSINK	HS09045
22	1	SCREW	SC02907
23	1	NUT	NT02900

For 12 VDC Supply Input & Load :  
Omit U2 IC and use jumper as shown below



CN1 Connector : Supply Input 15-24 VDC  
CN2 Connector : Load (Lamp) 15-24 VDC  
PR1 Preset : Frequency Adjust  
P1 Pot : PWM Adjust  
D1 LED : Power Indication

