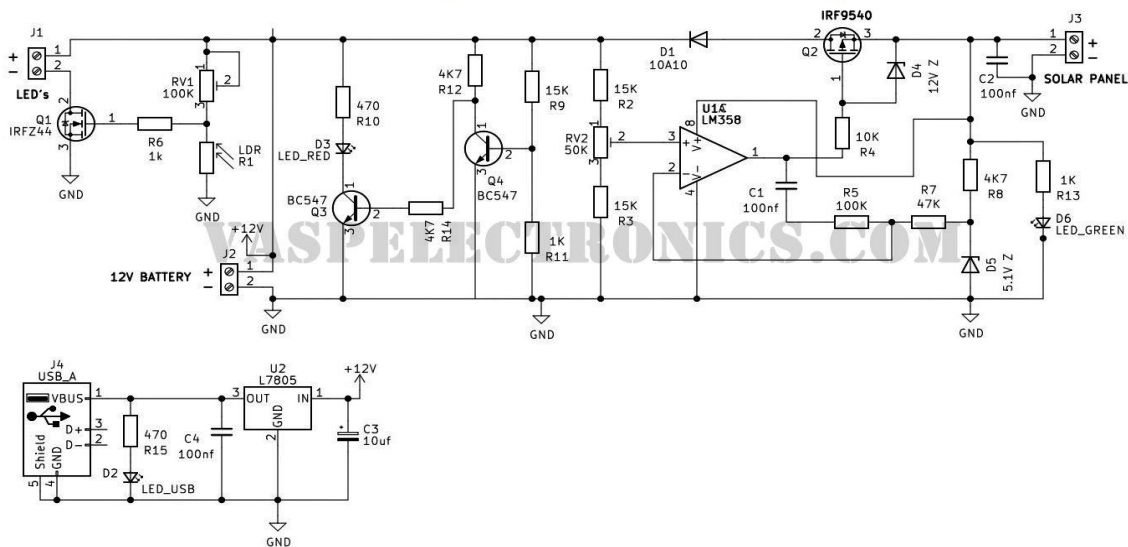


BARNOWL 12V 10A Solar Charge Controller List of Parts (BOM)

Sr.no.	Description	References	Value	Quantity Per PCB
2	Electrolytic Capacitor	C3	10uf / 25v	1
3	Rectifier Diode	D1	10A10 / 6A4	1
4	Zener diode 12v	D4	12V Z	1
5	Zener diode 5.1v	D5	5.1V Z	1
6	Solar Panel Power Indiacator LED	D6	LED_GREEN	1
7	Low Battery indicator LED	D3	LED_RED	1
8	USB Power indiacator LED	D2	LED_GREEN	1
9	LED Light / Load connector	J1	LED's	1
10	12v Battery connector	J2	12v Batt	1
11	Solar panel connector	J3	Solar Panel	1
12	USB Type A connector	J4	USB_A	1
13	BC547	Q3 Q4	BC547	2
14	IRF9540, IRF4905, IRF5305, IRF9Z34	Q2	IRF9540	1
15	IRFZ44, IRF540, IRFZ48, STP55NF06	Q1	IRFZ44	1
16	1/4w Resistor	R10 R15	470Ω / 1k	2
17	1/4w Resistor	R6 R11 R13	1k	3
18	1/4w Resistor	R8 R12 R14	4K7	3
19	1/4w Resistor	R4	10K	1
20	1/4w Resistor	R2 R3 R9	15K	3
21	1/4w Resistor	R7	47K	1
22	1/4w Resistor	R5	100K	1
23	Photoresistor / LDR	R1	LDR	1
24	Charging Control Preset*	RV2	50K	1
25	LDR control Preset**	RV1	100K	1
26	L7805	U2	L7805	1
27	LM358, JRC4558, NE5532, TL072	U1	LM358	1

12v 10a Solar Charge Controller Circuit Diagram



Instructions

*** - Place a 1KΩ resistor at Battery Connector J2 and adjust RV2 to set charging voltage.**

**** - Put your finger to darken the LDR and adjust RV1 till the LED light turns on.**

