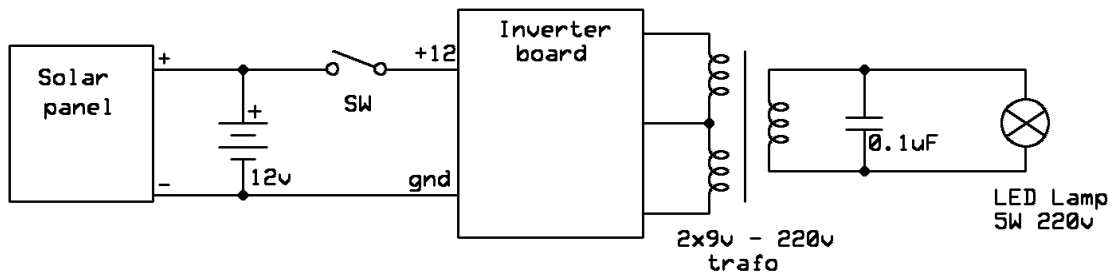
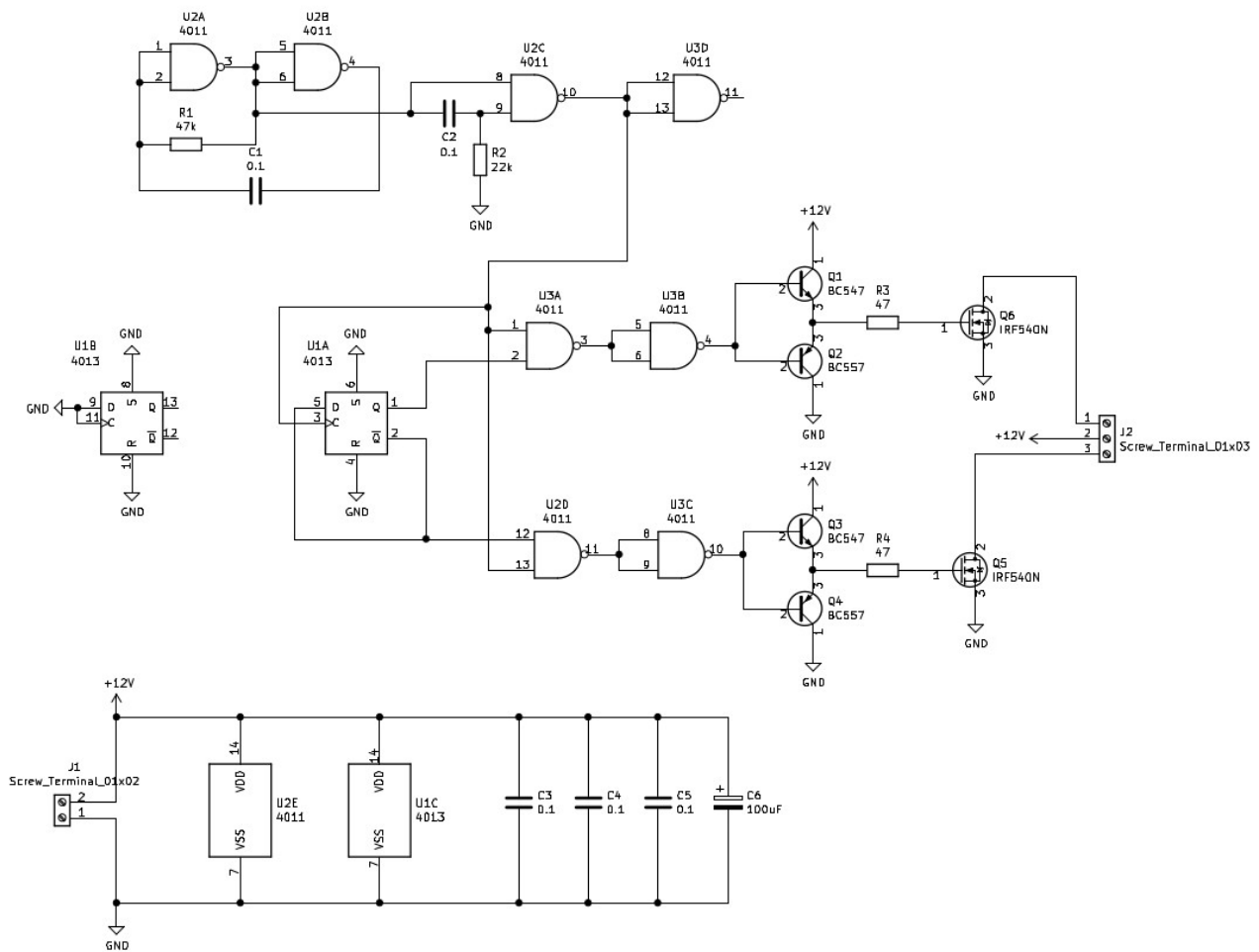


Solar light from junk parts



pic.1 Overall schematic

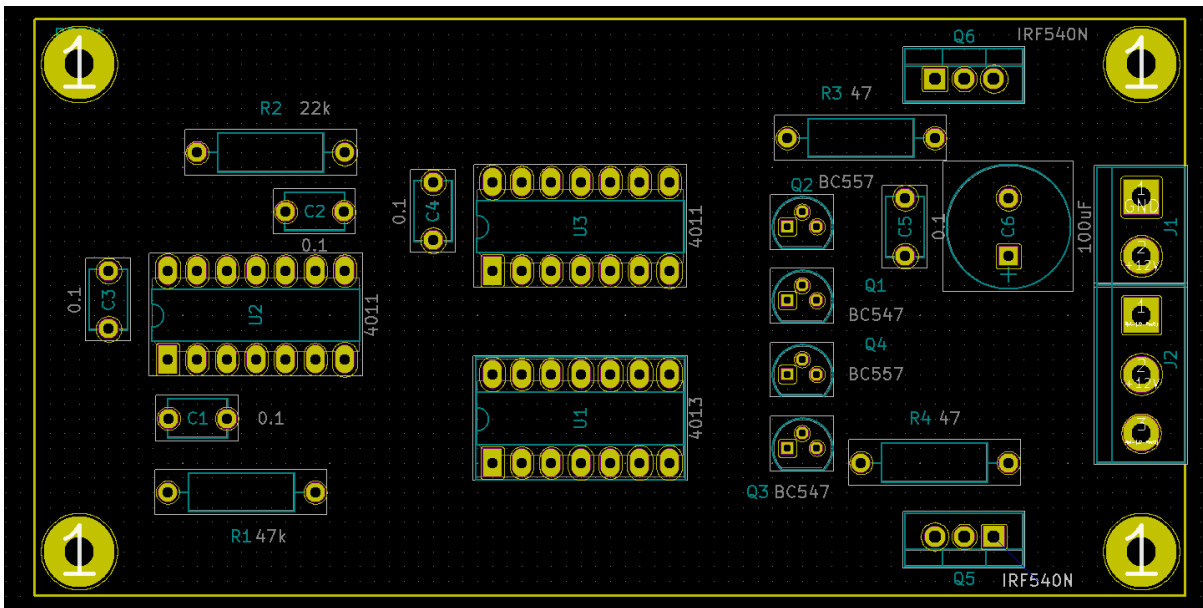


pic2. Inverter

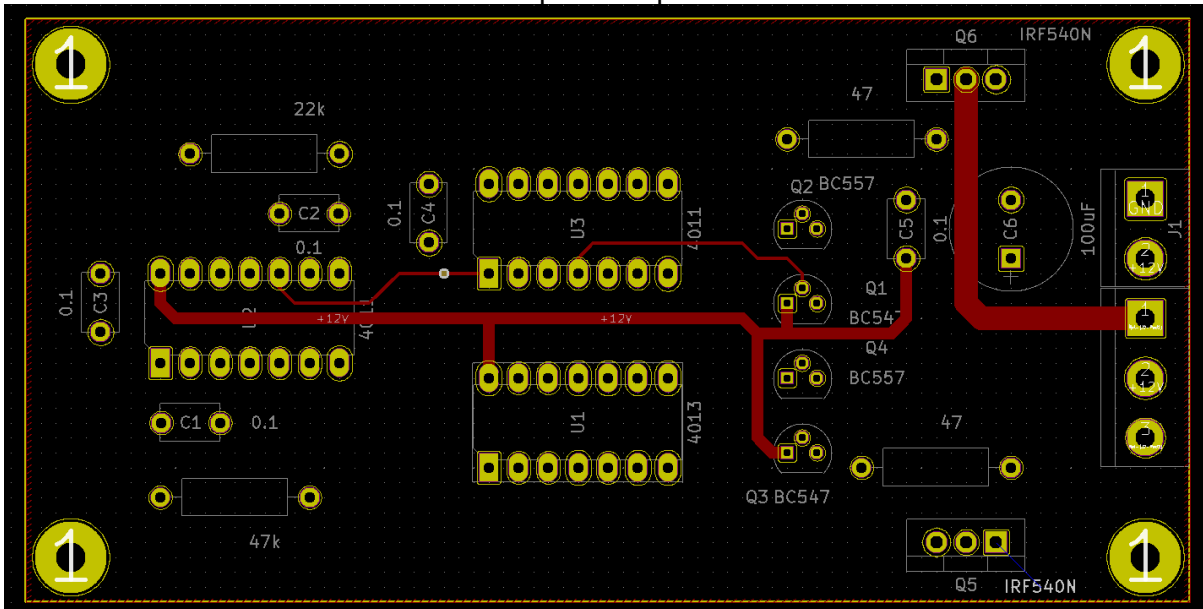
Part list

Designator	Designation	Package	Quantity
C6	100uF		1
C5,C4,C3,C2,C1	0.1uF		5
J1	Screw_Terminal_0 1x02	Terminal Block Bornier 2x5.08mm	1
J2	Screw_Terminal_0 1x03	Terminal Block Bornier 2x5.08mm	1
U1	CD4013	DIP-14	1
U2,U3	CD4011	DIP-14	2
R1	47k		1
R2	22k		1
R3,R4	47 Ohm		2
Q1,Q3	BC547	TO-92	2
Q2,Q4	BC557	TO-92	2
Q5,Q6	IRF540N	TO-220	2

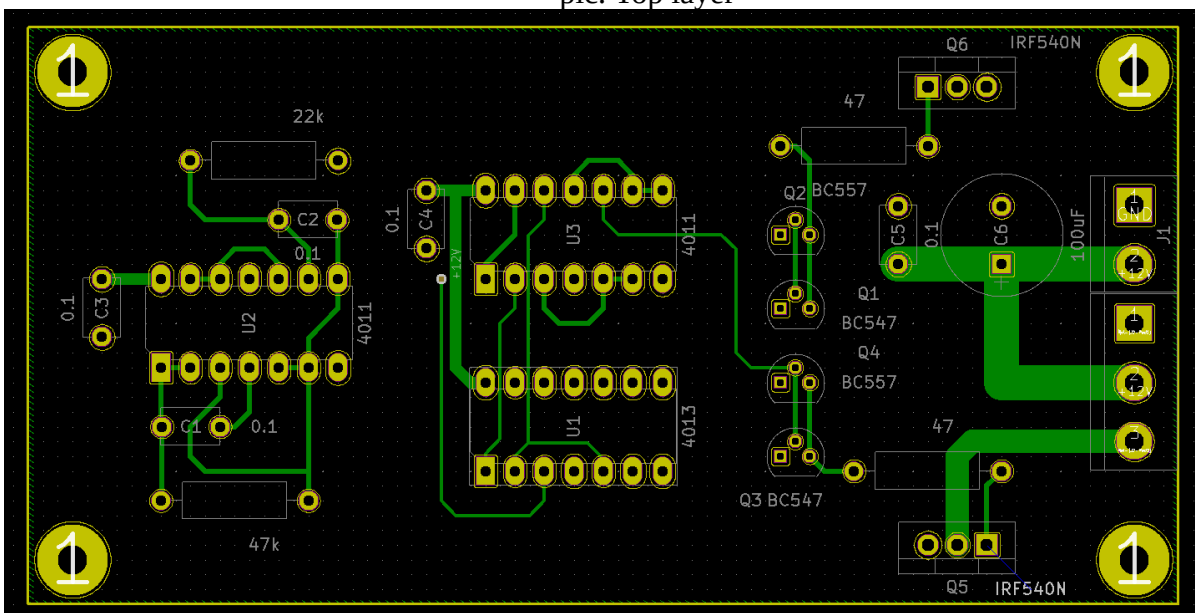
Transformer: Any of proper size from old power supply or UPS e.g. 220v → 2 x 9v or 220v → 2 x 12v (size/power depends on how many lamps you want connect to it)



pic. Components

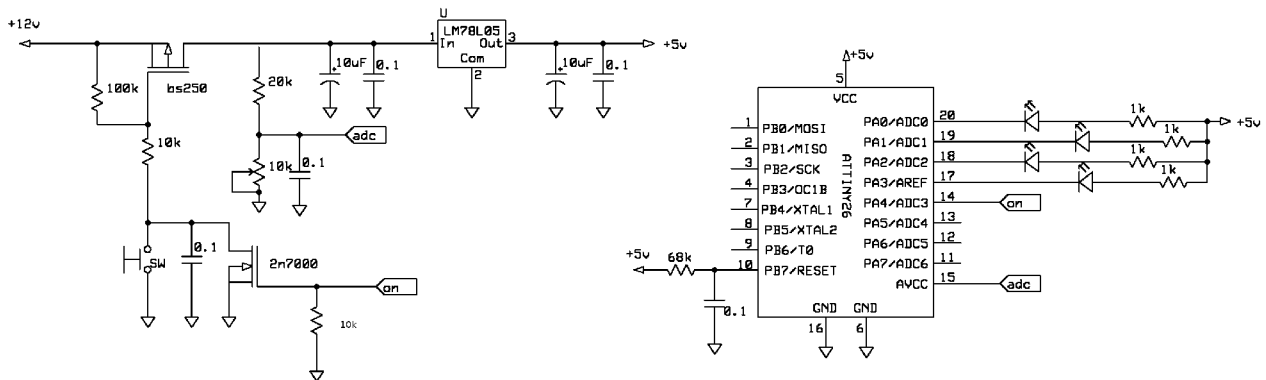


pic. Top layer



pic. Bottom layer

Battery charge indicator



Battery voltage,v	Capacity	Indication
11.96	40%	LED1 blink
12.1	50%	LED1 blink
12.24	60%	LED1 blink
12.37	70%	LED1 on
12.5	80%	LED1,2 on
12.62	90%	LED1,2,3 on
12.7	100%	LED1,2,3,4 on

Part list

	Designation	Package	Quantity
	10uF		2
	0.1uF		5
	bs250	TO-92	1
	2n7000	TO-92	1
	100k		1
	10k		2
	1k		4
	68k		1
	10k pot	Bourns multi turn pot	1
	ATtiny28	DIP-20	1
	3v LED		4
	LM78L05	TO-92	1

Reference:

1. source code

<https://github.com/vasik041/openlab/tree/master/batmon>