

Bill of materials

	Ref	Type	Remarks	
	C1	100 nF 0603 capacitor		
	J1	Micro USB connector		
	P1	WAGO 2060 2-pole connector	LED connector	
	Q1	BC868 NPN transistor	Pass transistor	
	R1	220K 0603 resistor	Sets the max current $I = 50000 / R$ . In this case $I = 228 \text{ mA}$ .	
	R2	0R1 0603 resistor	Current sense resistor	
	RV1	3314G / 1804GSMD potentiometer 1kohm		
	U1	LM358 opamp, SO-8		
	PCB	Printed circuit board		