

Tabelle1

Mutatio BOM

Part description	Part	Cost	Source
NodeMCU (V1)	-	6.16 €	Banggood
RTC Module, DS3231 (Optional, track time without internet)	-	0.90 €	Banggood
NFET 2SK3018	Q1	0.05 €	Ebay/Aliexpress
Schmitt trigger SN74LVC1G14DBVR	IC2	0.07 €	Ebay/Aliexpress
100uF 1206 Capacitor	C6, C7	0.10 €	Ebay/Aliexpress
47uF 0805 Capacitor	C1, C2, C3, C4	0.10 €	Ebay/Aliexpress
WS2812B Color LED	LED	0.12 €	Ebay/Aliexpress
22uF 0603 Capacitor	C9, C13, C14	0.05 €	Ebay/Aliexpress
1uF 0603 Capacitor	C5	0.01 €	Ebay/Aliexpress
100nF 0603 Capacitor	C8, C12	0.01 €	Ebay/Aliexpress
1N4148 Diode	D1, D2, D3	0.02 €	Ebay/Aliexpress
MicroSD Socket	-	0.10 €	Ebay/Aliexpress
51k Resistor, 0603	R1, R2, R5	0.01 €	Digikey
100k Resistor, 0603	R2	0.01 €	Digikey
1k Resistor, 0603	R3	0.01 €	Digikey
PCB	-	1.40 €	Elecrow
		7.72 €	

Additional Parts are untested (OpAmp circuit)
For datalogging, an SD card is needed (~3MB per day)