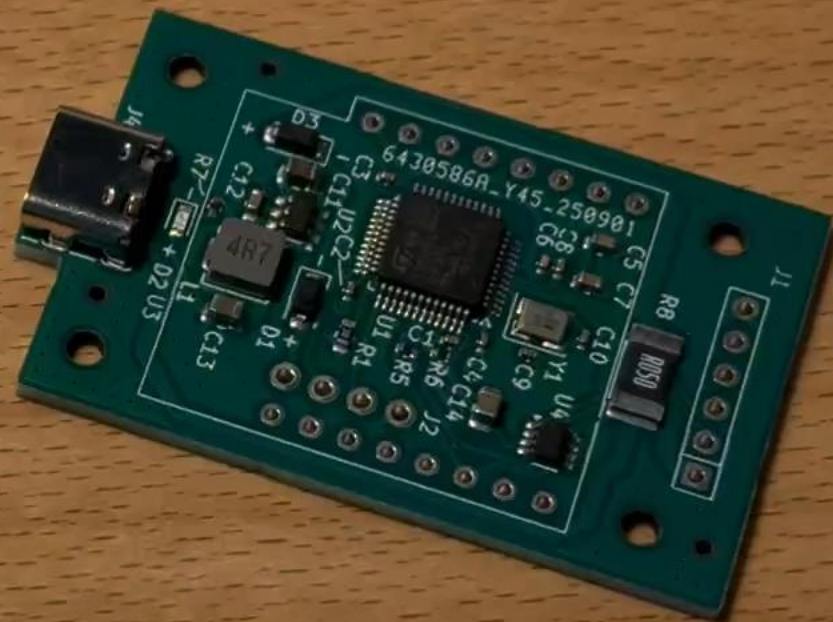
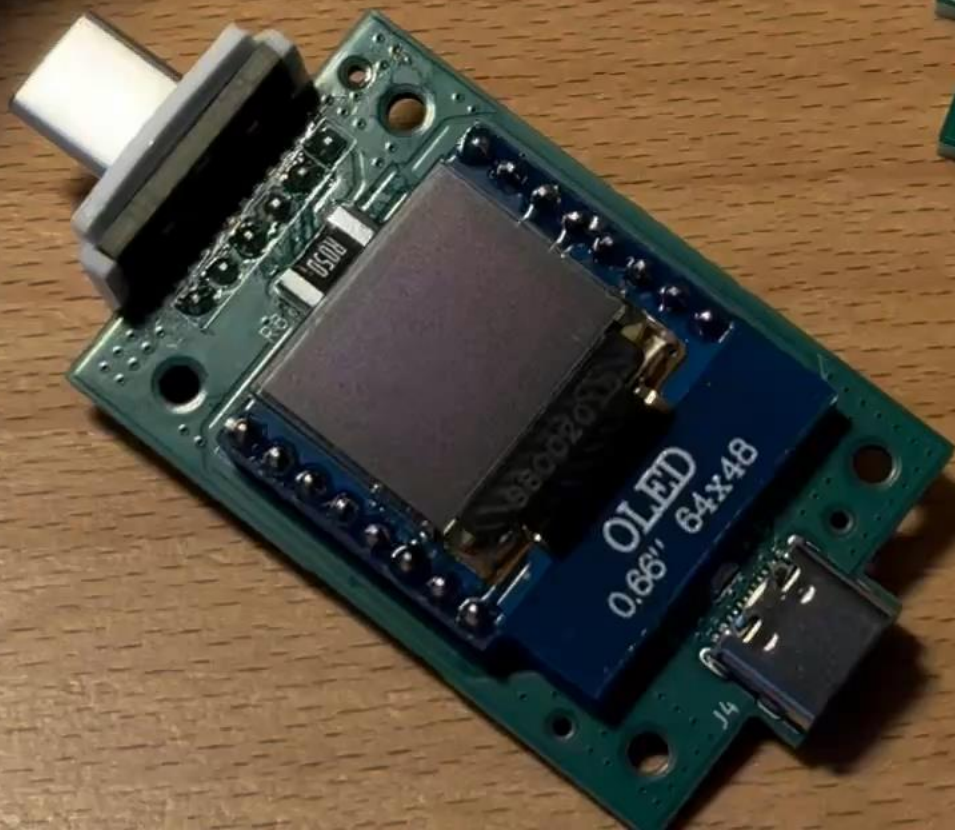


# USB-C Power Delivery Measurement Tool







# What is USB-C Power Delivery (PD)?



## Universal Standard

Works across many devices (phones, laptops, tablets, accessories).



## Flexible Voltage and Current

Supports multiple power profiles (5V, 9V, 12V, 15V, 20V).



## Higher Power Delivery

Provides up to **100W** (20V @ 5A), enabling laptop charging.



## Smart Negotiation

Device and charger communicate to select the safest and most efficient power level.

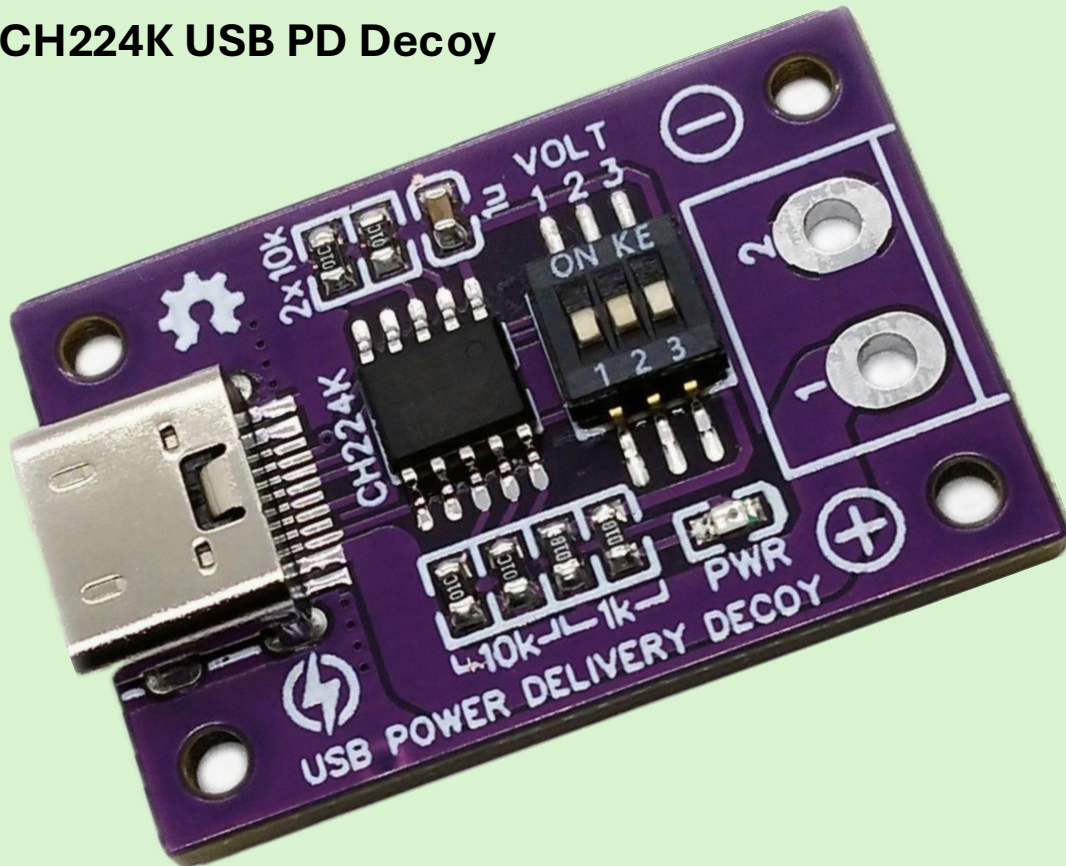
➔ the ideal power source for Maker projects



# USB-C PD: the Ideal Power Source for Maker Projects

hackaday.io

CH224K USB PD Decoy



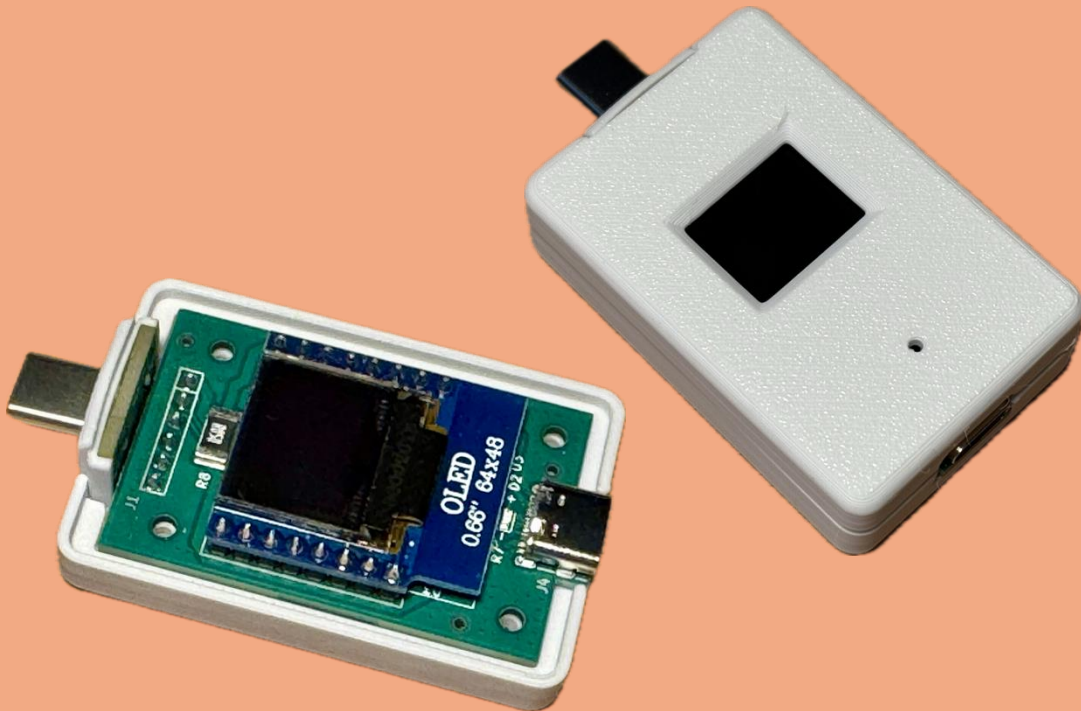
- **USB-C PD offers flexible voltages** (5V–20V), but a controller chip is required to request the desired level.
- **CH224K simplifies voltage negotiation**, making it easy to obtain fixed outputs (e.g., 5V, 9V, 12V, 15V, 20V).
- **Hackaday project + breakout board** provide ready-to-use examples for quick prototyping.

# How to Measure Voltage, Current, and Power?

## Two Devices to Monitor USB-C Power Delivery

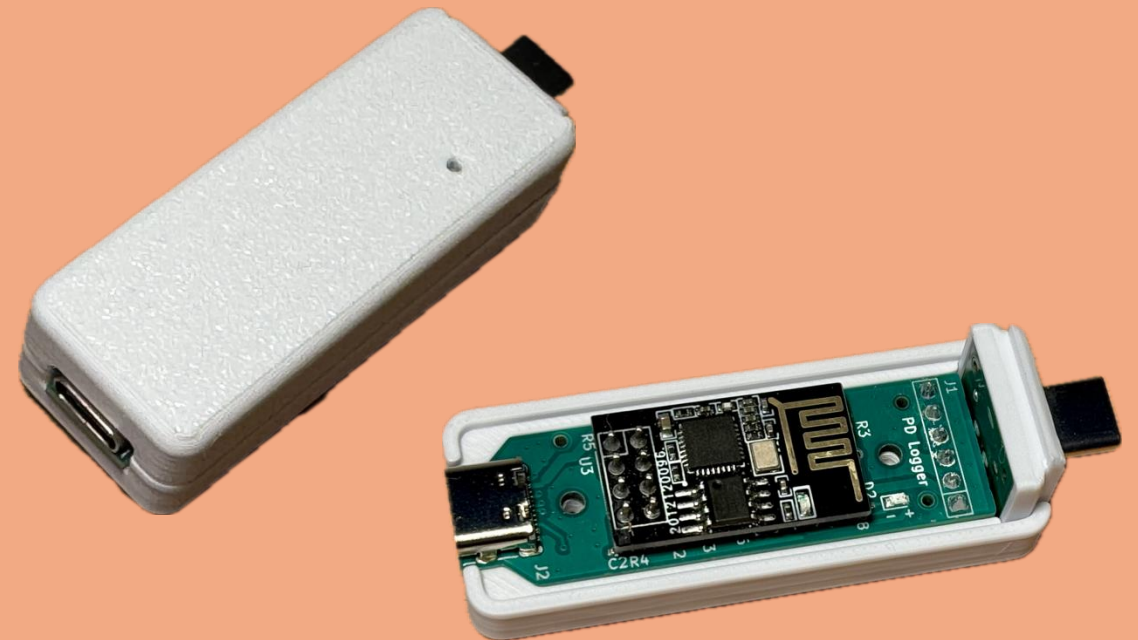
### DIY Power Meter

real-time display of V / I / P

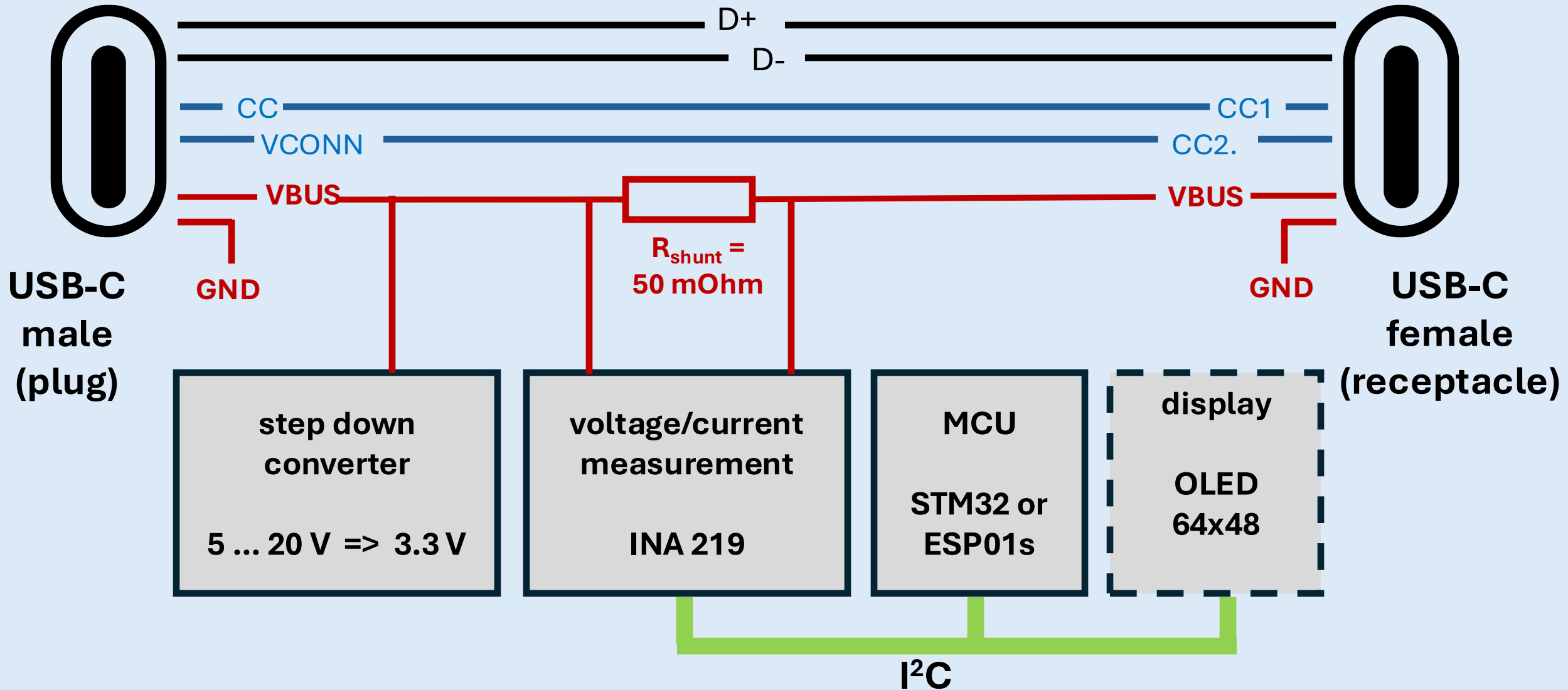


### PD Logger

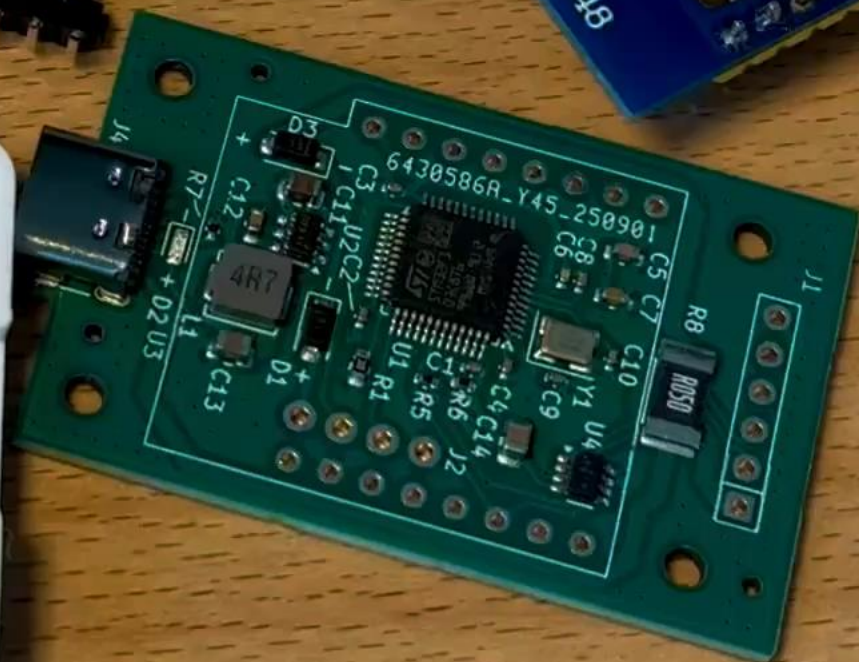
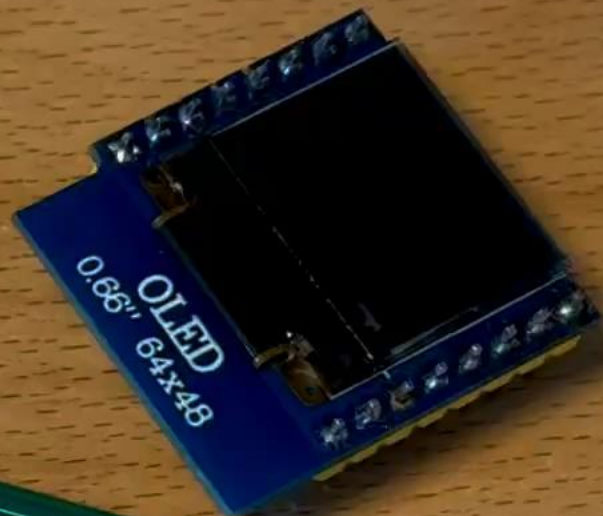
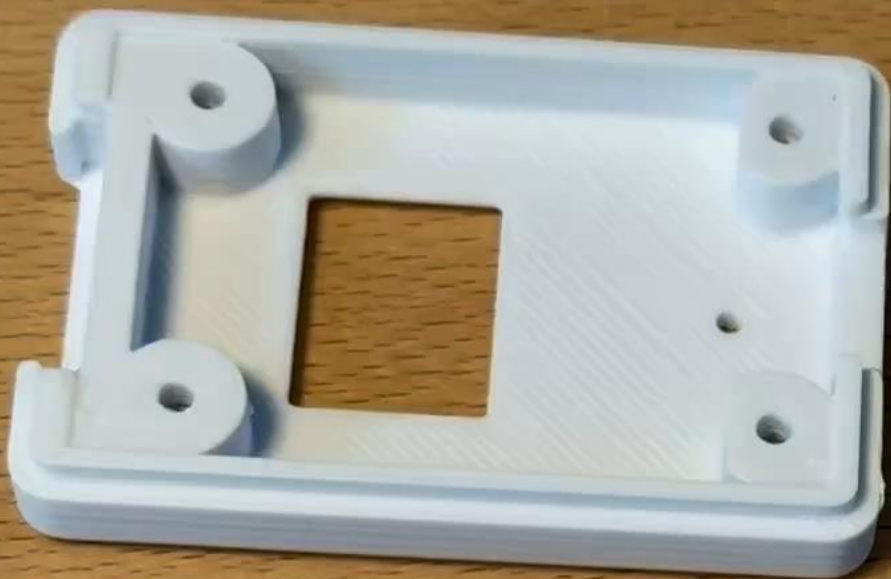
Wi-Fi + browser, long-term data logging



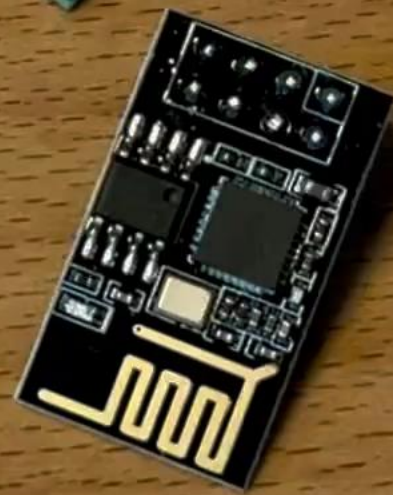
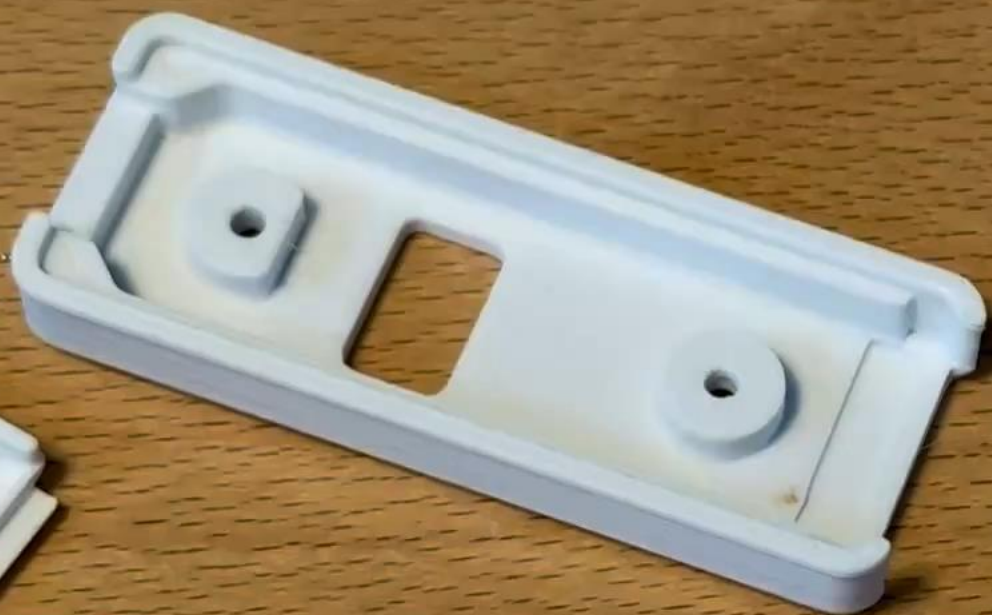
# Schematic of the Measuring Devices

















A white robotic arm is shown against a light-colored wall and a wooden floor. The arm has a rectangular white box in the middle with a small digital display and a red LED light. The display shows three lines of text: '20.25 V', '2706 mA', and '54.81 W'. The arm is positioned vertically, with the display facing the camera.

20.25 V  
2706 mA  
54.81 W