



Case for Wemos D1 Battery Monitor with OLED Display



GX1400

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Summary

Small enclosure for Wemos D1 with opening for display

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Wemos Battery Monitor with OLED Display

This is a little analog battery monitor for my sump pump system that has a DC battery backup. It uses a Wemos D1 ESP8266 dev board, OLED display, breakout board for wiring.

I added a 1.5Mohm resistor in line with the analog input, the D1 already has a 220k ohm resistor in series with a 100k ohm resistor to divide a 3.3V signal down to 0-1V. The 1.5Mohm resistor increases the division so that a 15V input is around 0.9V at the A0 pin.

I use ESPHome with Home Assistant to link data from the esp8266 into HA.

My ESPHome code is [here in my github](#).

For the sake of posterity I included it in the docs folder in this repo.

Changelog

2022/11/22 - Initial upload

Parts

HiLetgo 0.66 inch OLED 0.66" OLED Mini OLED Shield with I2C/IIC 64x48 Pixels 3.3V

Ximimark 5Sets WeMos D1 Mini Prototype Board XD-08 ProtoBoard Shield Double Sided Perf Board for Arduino

Design

Autocad Fusion 360

Slicer

Ultimaker Cura 4.12.1

Printer: Creality CR6 SE

Layer Height: 0.2mm

- Infill Density: 20%

- Infill Pattern: Grid

Filament: Inland PETG+ 1.75mm White

- Material: PETG

- Print Temperature: 235 degrees C

Model files



lid.3mf



case.3mf



lid.stl



case.stl



wemos_display_case.f3z

[Find source .stl files on Thingiverse.com](#)

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