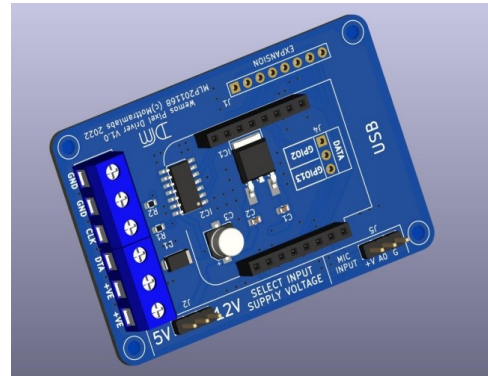


### ESP8266 LED Pixel (WS2812) Driver Board - MLP201168

#### Features and Benefits

- 5V or 12V Operation
- Works With Wemos D1 Mini Wi-Fi Board
- On-board 5V Regulator powers the Wemos D1
- Reverse Polarity Protection (Board Only)
- 5V data output to LED pixels
- Screw terminal connections
- Analogue audio input option

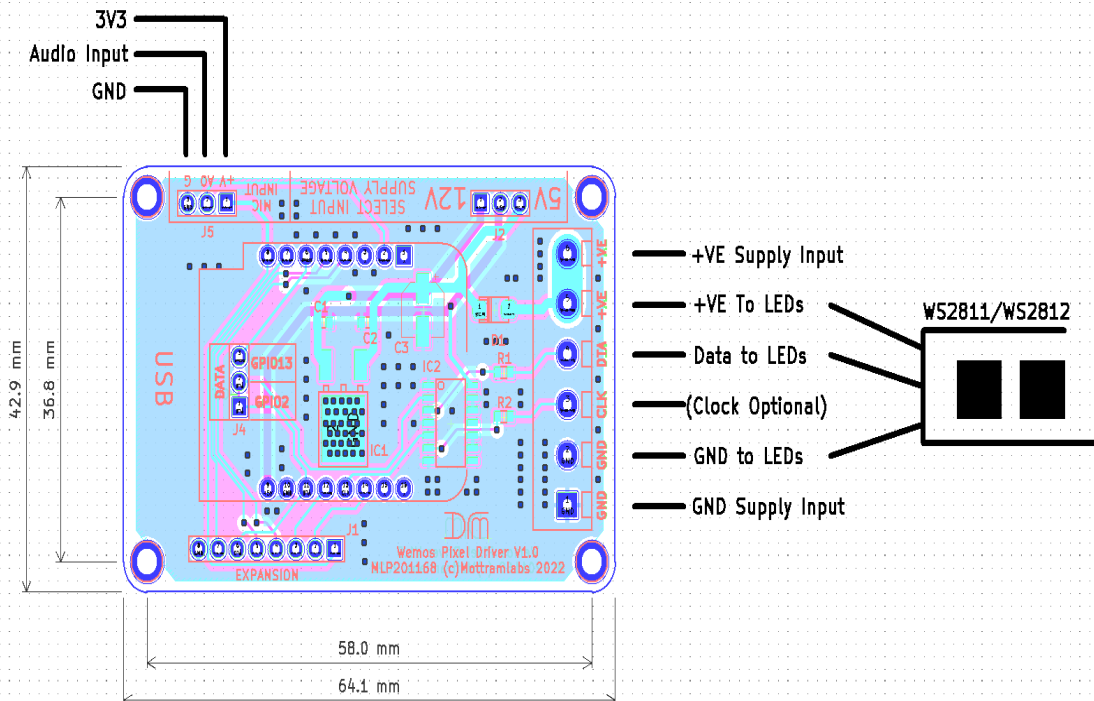


#### Product Details

The MLP201168 provides a simple solution for connecting WS2812 or similar LED pixel strips to the popular Wemos D1 Mini Wi-Fi module. An on-board 74HCT125 line driver provides a 5V P/P output from the normal 3.3V output supplied by the ESP8266 chip as used on the Wemos D1 Mini.

The board provides reverse polarity protection for the PCB only, care should be taken to protect the LED strip. The board can be used with either 5V or 12V LED strips when using the appropriate power supply. There is an option link on the board (J2) to select between a 5V or 12V supply, it's important to select this link for the supply used or the Wemos D1 Mini will be damaged. Please note the boards 5V regulator powers the Wemos D1 Mini and 74HCT125 only, it does not power the LED output.

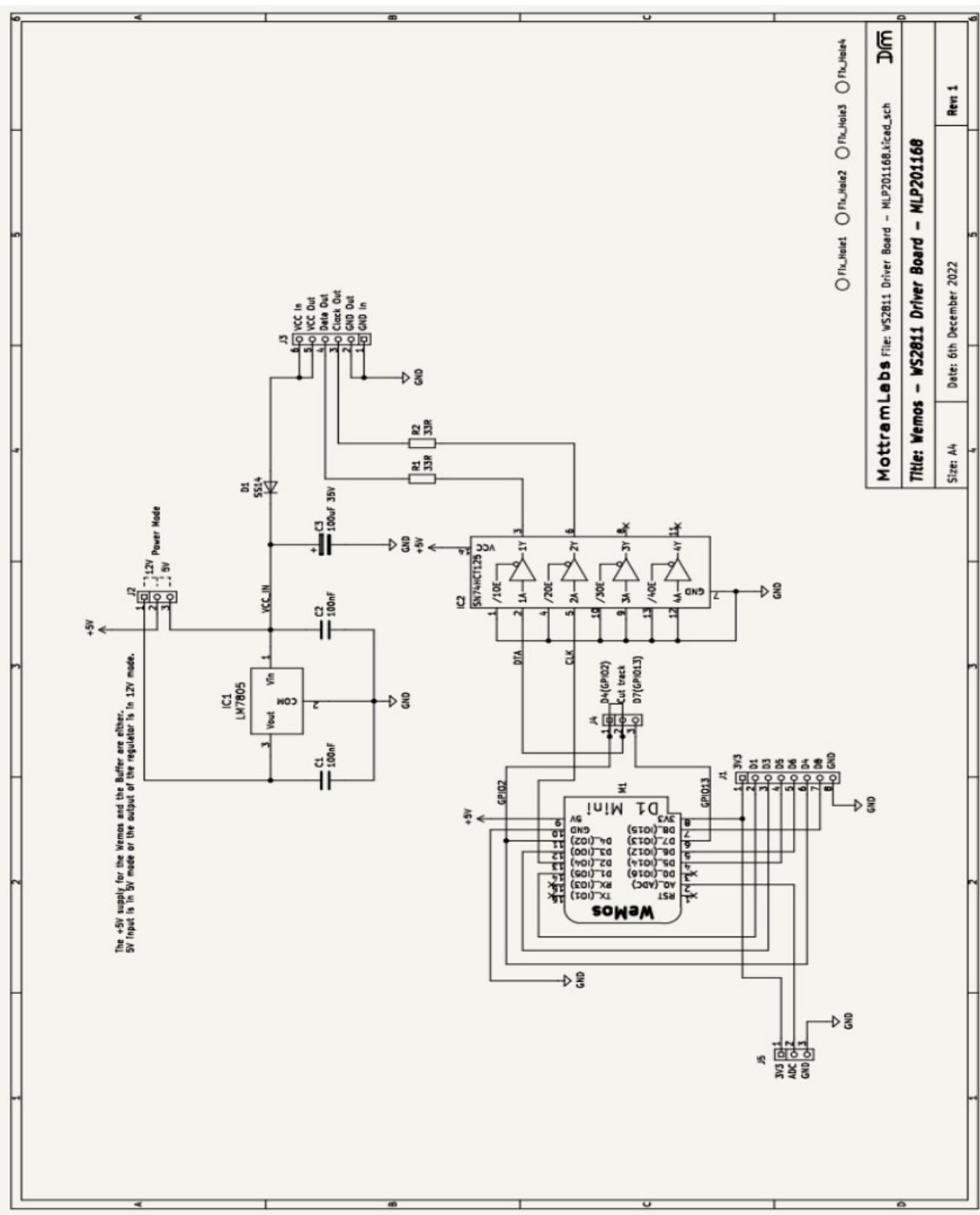
A Sound reactive option is possible via a 3 pin header for use with an external analogue microphone board, the microphone is then connected to the Wemos D1 Mini's analogue input.



#### J2 Link

The voltage selection must match the input supply, so for 5V this link must be set to 5V and for 12V select 12V. Failure to do this will damage the PCB and any Wemos D1 Mini plugged in.

MLP201168 - Schematic



MottramLabs File: WS2811 Driver Board - MLP201168.kicad\_sch

**Dim**

Title: Wemos - WS2811 Driver Board - MLP201168

Size: A4 Date: 6th December 2022

Rev: 1

○ Flt\_Hoist1 ○ Flt\_Hoist2 ○ Flt\_Hoist3 ○ Flt\_Hoist4

## Software – WLED

Although the board can work with a range of software one of the most popular and feature rich is WLED. Below are some links to the WLED project page and a fork “WLED Sound Reactive”. This version adds as the name suggests sound reactive modes, this version requires an external audio input. The simplest way is to add a microphone board to the Wemos D1 Mini’s analogue input.

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### Flashing Tool

**ESPHome-Flasher is a python utility for programming the Wemos D1 Mini**

<https://github.com/esphome/ESPHome-Flasher>

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### WLED

**WLED Github Page**

<https://github.com/Aircoookie/WLED>

**WLED Releases**

<https://github.com/Aircoookie/WLED/releases>

**WLED Web Installer Tool**

<https://install.wled.me/>

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### Sound Reactive WLED

**Sound Reactive WLED Releases**

<https://github.com/atuline/WLED/releases>

**Sound Reactive Wiki**

<https://github.com/atuline/WLED/wiki>

**Audio connection Options**

<https://github.com/atuline/WLED/wiki/Analog-Audio-Input-Options>

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