

## SPI FLASH MODULE

The diagram illustrates the internal wiring of an SPI Flash Module. The central component is the W25Q32JVSS flash memory (U1). It is connected to a 3V3 supply. The chip select (CS) is connected to pin 1 of U1 through a 1k resistor (R3). The clock (CLK) is connected to pin 6 of U1 through a 2k resistor (R4). The data bus (Data\_In) is connected to pins 5, 2, 3, and 7 of U1. The master in slave out (MISO) is connected to pin 4 of U1. A 100nF capacitor (C1) is connected between the VCC and GND pins of U1. The module is powered by a 3V3 supply. The module also includes an LED (D1) connected to the VCC pin of U1 through a 100R resistor (R7).

### SPEAKER & MQ-2 MODULES

The diagram shows the wiring for a Speaker and an MQ-2 module. The Speaker module (J3) has two pins: 1 (Speaker Conn) and 2 (Speaker Conn). The MQ-2 module (J1) has four pins: 1 (PE5), 2 (A0), 3 (5V), and 4 (GND). The wiring is as follows: Pin 1 of J3 is connected to Pin 1 of J1. Pin 2 of J3 is connected to Pin 2 of J1. Pin 3 of J1 is connected to Pin 3 of J2 (5V). Pin 4 of J1 is connected to GND. Pin 1 of J2 is connected to GND. Pin 2 of J2 is connected to Pin 2 of J4 (VCC). Pin 3 of J4 is connected to GND. Pin 4 of J4 is connected to GND.

## OLED MODULE

Wiring diagram for the OLED module:

- Pin 1: GND
- Pin 2: 5V
- Pin 3: SCL\_OLED
- Pin 4: SDA\_OLED

The module is labeled J5 OLED MODULE.

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