

Sensor Connections – Fish Aquaculture Monitoring System

1. Temperature Sensor

- VCC → 3.3V
- GND → GND
- DATA → GPIO 4 (ESP32)

Notes: Use 10k pull up resistor for DATA pin.

2. pH Sensor

- VCC → 3.3V or 5V (module dependent)
- GND → GND
- AOUT → GPIO 34 (Analog Input)

3. Turbidity Sensor - VCC → 5V

- GND → GND
- AOUT → GPIO 35

4. TDS Sensor

- VCC → 3.3V recommended
- GND → GND
- AOUT → GPIO 32

5. MQ135 Air Quality Sensor

- VCC → 5V
- GND → GND
- AOUT → GPIO 33

Safety Notes:

- Always use common ground between ESP32 and sensors.
- MQ135 requires 5V due to heater.
- Turbidity readings may fluctuate, averaging recommended.
- Ensure waterproofing for all water-contact sensors.