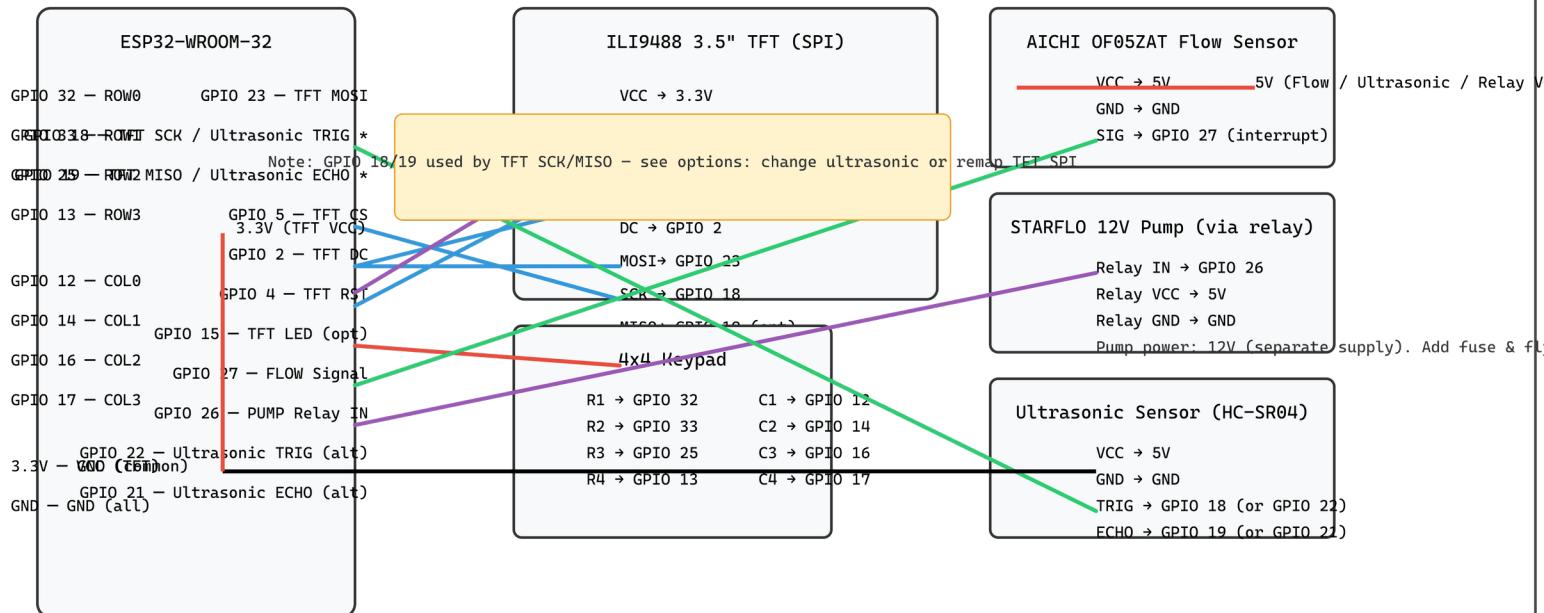


ESP32 Oil Node - Wiring Schematic

File: firmware/esp32_oil_node/wiring_schematic.svg • Created for ILI9488 TFT, keypad, flow sensor, pump (relay), ultrasonic



Legend

- Use a common ground for ESP32, sensors, TFT, and relay/pump supply.
- TFT: 3.3V only. Flow / Ultrasonic often require 5V – check sensor spec.
- Pump: 12V power supply (separate). Use a relay or MOSFET with flyback diode and fuse.
- Default pins shown; update firmware #defines or TFT_eSPI User_Setup.h to remap pins if needed.
- *Optional: Move ultrasonic to GPIO 22/21 to avoid SPI conflicts.