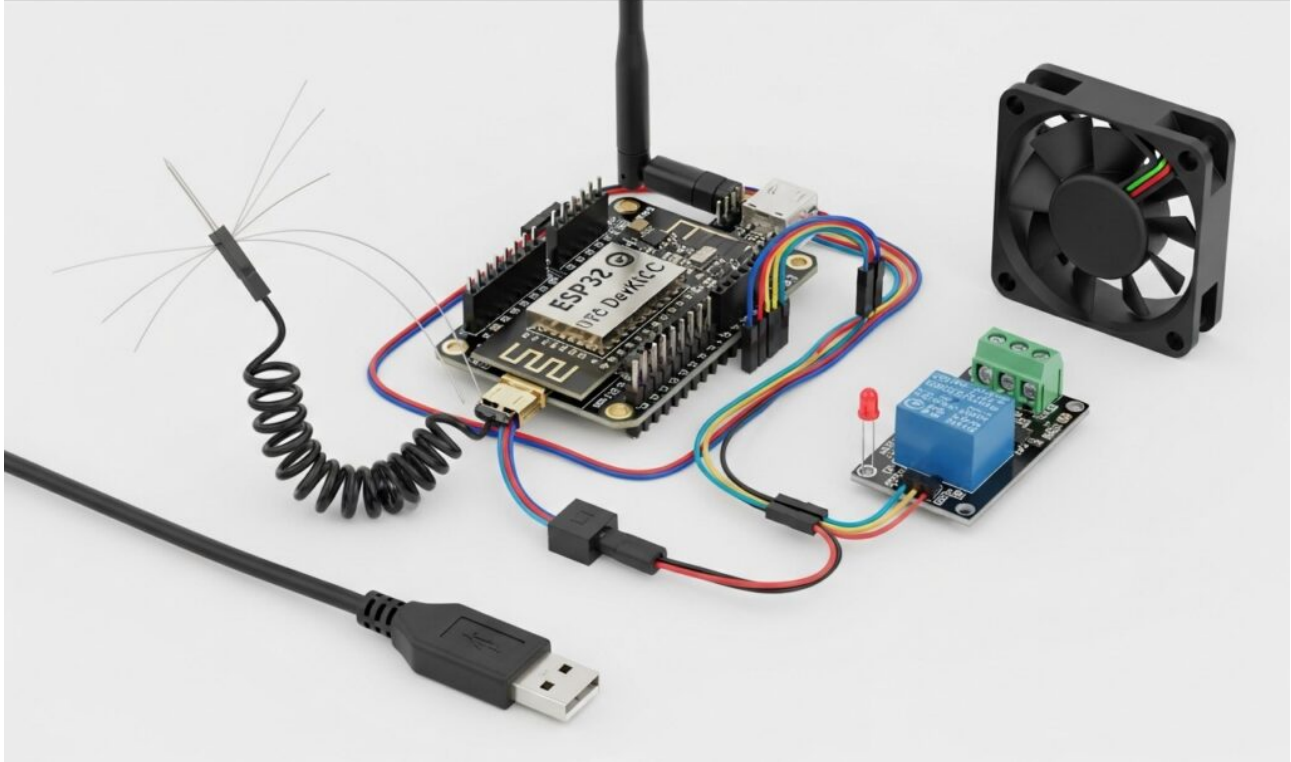


Practical case: ESP32 Web Thermostat

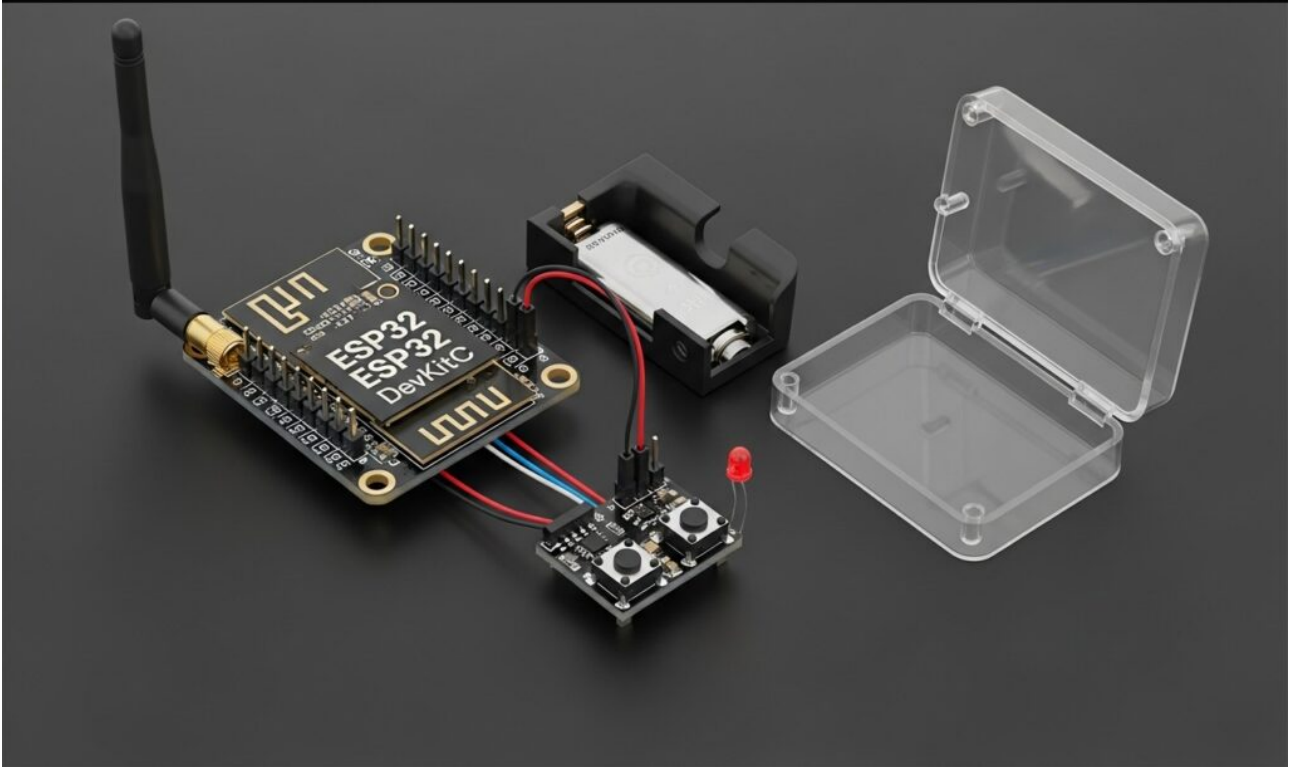
ESP32 Web Thermostat



A standalone, web-accessible thermostat prototype using an ESP32 that monitors ambient temperature and dynamically scales a cooling fan's speed via Pulse...

Practical case: ESP32 BLE Locator Beacon

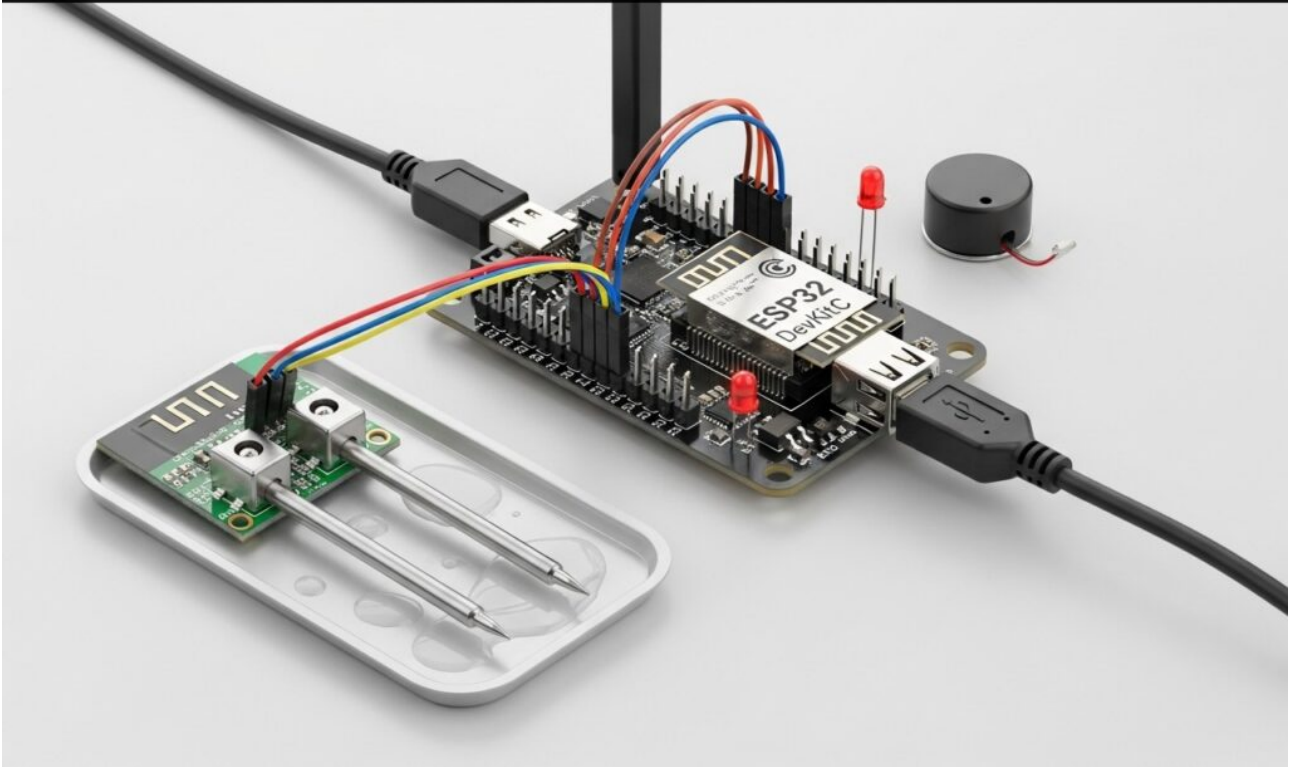
ESP32 BLE Locator Beacon



A Bluetooth Low Energy BLE tool finder beacon that attaches to equipment, enabling users to trigger a localized audible and visual alarm via smartphone to...

Practical case: ESP32 Water Leak Detector

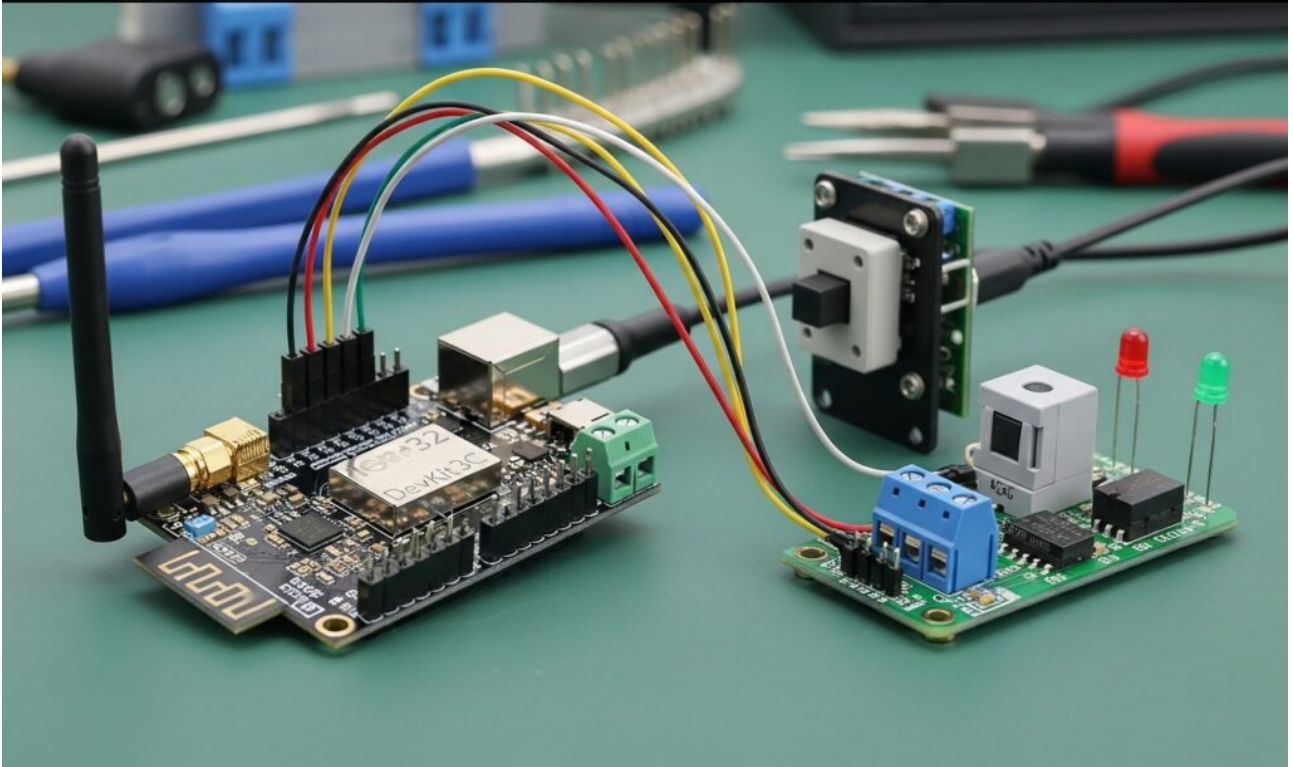
ESP32 Water Leak Detector



A smart, WiFi-enabled water leak detection prototype that triggers an immediate local audio-visual alarm while hosting a live web dashboard and JSON API to...

Practical case: Garage Web Control with ESP32

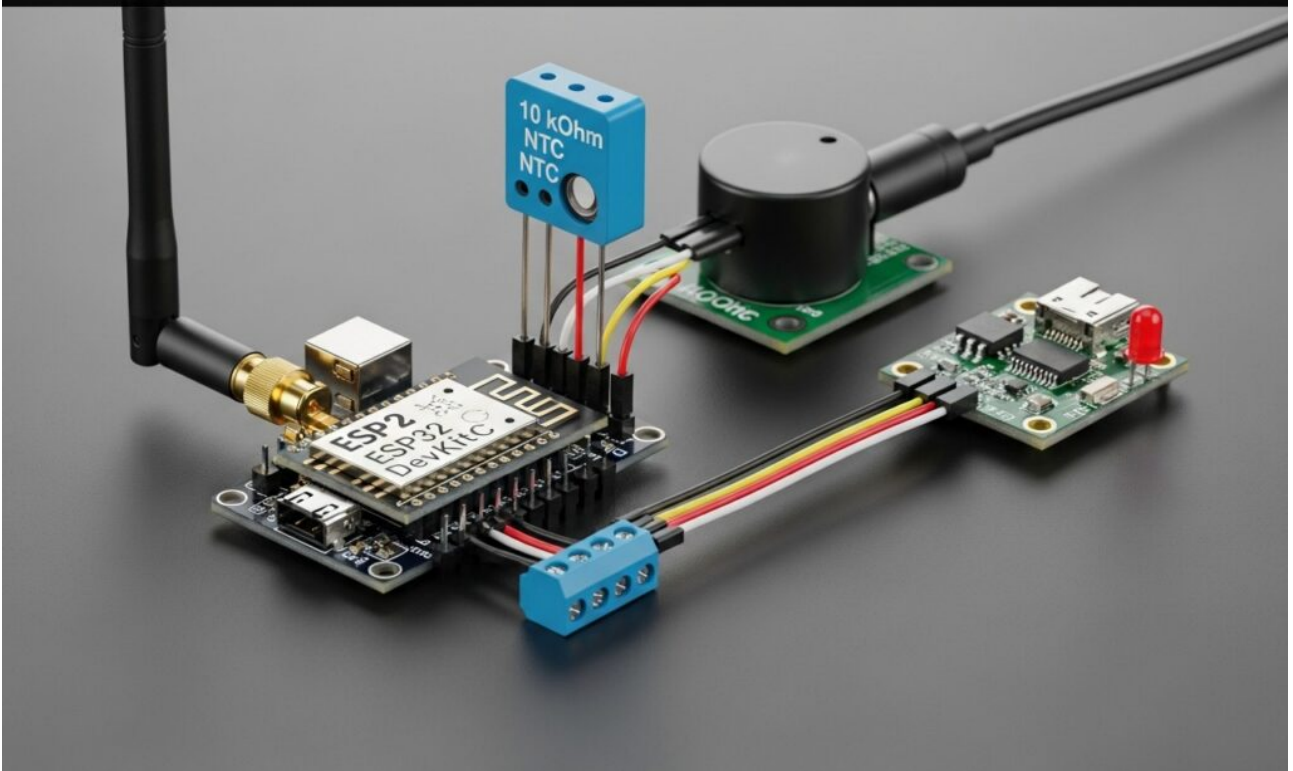
Garage Web Control with ESP32



You will build a standalone ESP32 web server that monitors a garage door's physical state using a magnetic reed switch and securely actuates a relay to open...

Practical case: ESP32 Wi-Fi Freezer Monitor

ESP32 Wi-Fi Freezer Monitor



A Wi-Fi-enabled freezer temperature monitoring system that reads an analog NTC thermistor, triggers a local audible and visual alarm when temperatures exceed...

Practical case: ESP32 Secure Access Panel

ESP32 Secure Access Panel



A functional prototype of a secure access panel utilizing the ESP32's built-in capacitive touch sensing, visual LED indicators, and acoustic buzzer feedback....