









Sensor Reading Process – Flowchart

Start

ESP32 Connected to Wi-Fi?

Is Waken Up from Sleep?

Initialization

Sensing with Sensor Device

Motion/Gas Detected?

Notify User Via Email

Update Sensor Information to Web Browser

ESP32 Deep Sleep

YES

NO

YES

NO

YES

NO

Retrieve Sensor Log

Sensor Threshold Process – Flowchart

Start

ESP32 Connected to Wi-Fi?

Is Waken Up from Sleep?

Initialization

Read Sensor Value

ESP32 Deep Sleep

YES

NO

YES

NO

Log Sensor Value

Sensor Threshold Match?

YES

NO

Control General Pin Input / Output

Manipulate Device Process – Flowchart

Start

ESP32 Connected to Wi-Fi?

Is Waken Up from Sleep?

Initialization

Read Control Event

ESP32 Deep Sleep

YES

NO

YES

NO

Is Valid Trigger Response?

Trigger Device On/Off

Is Valid Colour Code?

Change Light Colour

YES

NO

YES

Open Garage/Door

Parse GPIO On / Off Status

Is Valid Servo Pulse Width Modulation?

NO

YES

NO