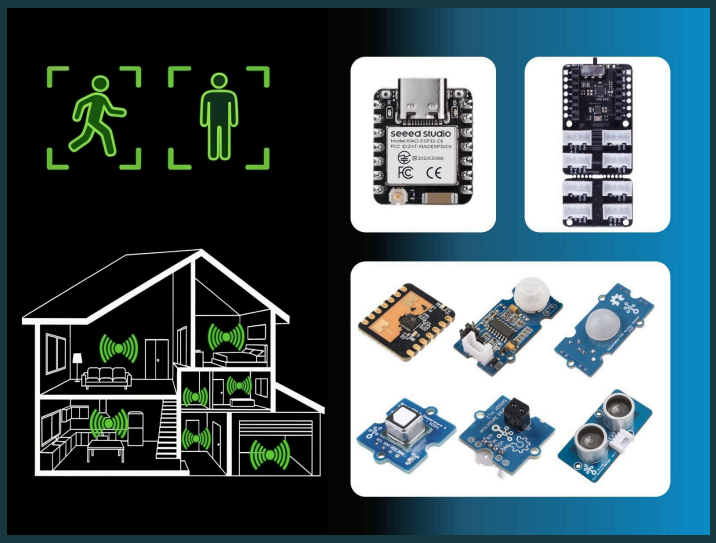
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INDUSTRIAL PRODUCT DATASHEET

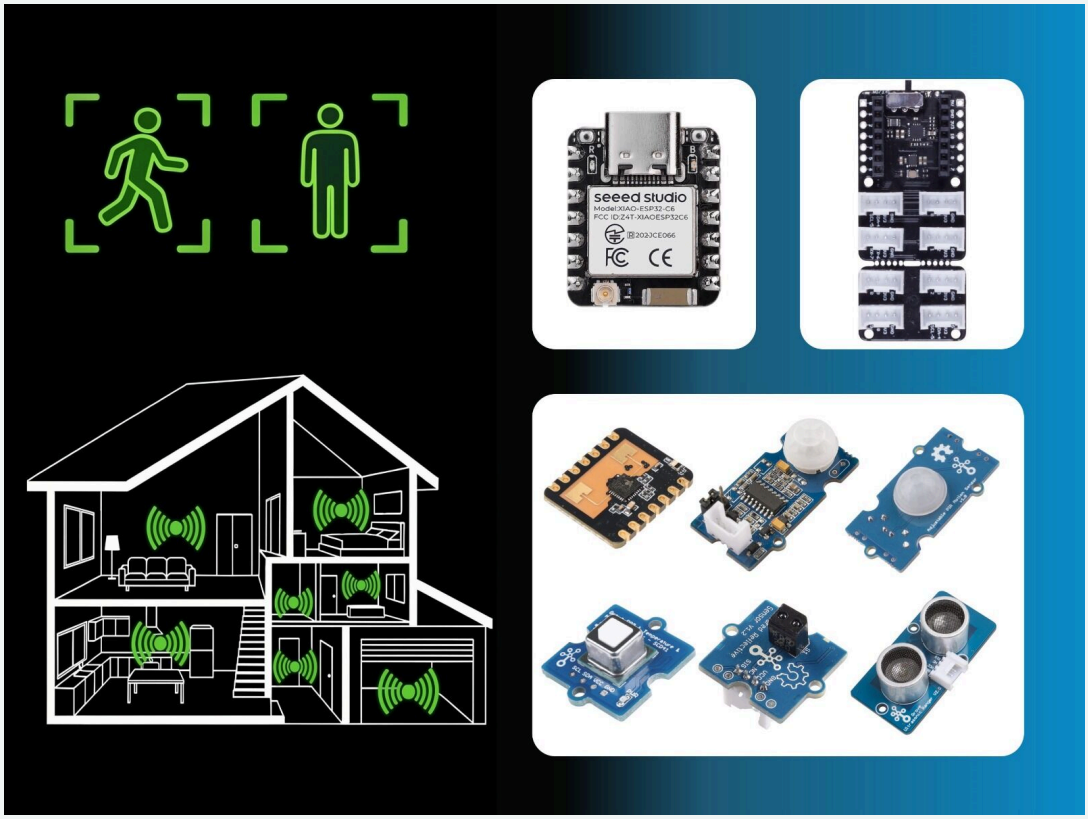
# Human Detecting ESPHome DIY Kit - Highly Customizable for Various Scenes

The Human Detecting ESPHome DIY Kit delivers plug-and-play multi-sensor fusion on XIAO ESP32-C6 for reliable, customizable Home Assistant presence automation in complex environments.

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# Overview




The Human Detecting ESPHome DIY Kit is a plug-and-play, solderless presence detection solution built on the XIAO ESP32-C6 and Grove ecosystem, enabling multi-sensor fusion for reliable occupancy sensing in complex environments. Designed for Home Assistant presence automation, it supports customizable scenarios such as bathroom lighting, static presence, entryway sensing, and desk presence, with optional sensors for advanced context-aware automation.

# Key Features

**Pitch your idea, get it for FREE!**

Have a killer idea for a highly customized presence setup? Don't pay to prototype. Submit your unique scenario proposal, and if your idea is selected, we'll ship you this complete kit absolutely free!

View Selected Proposals

Most Home Assistant users have experienced this: lights turning off while you're still in the room, or turning on for no reason at all. Presence detection sounds simple, but real homes are full of edge cases—people sitting still, pets moving around, steam filling a bathroom, or walls blocking signals. Relying on a single sensor often leads to unreliable automations and constant manual fixes. This kit tackles the problem with multi-sensor fusion, enabling more stable, context-aware detection that actually fits how people live.

- **Plug-and-Play, No DIY Barrier**

Built on the XIAO ESP32-C6 and Grove ecosystem, this bundle is fully plug-and-play—no soldering, no jumper wires, and no specialized tools required. With standardized connectors, you can quickly assemble and iterate on your setup, making it easy to prototype and deploy even without prior hardware experience.

- **Adapt to Various Scenarios**

Bathroom Lighting: Combines mmWave + PIR with humidity/temperature sensing to handle steam and short stays, keeping lights stable during showers and turning them off intelligently after use.

Static Presence: Uses mmWave + PIR to avoid "no-motion" failures, maintaining accurate occupancy detection even when users are still (e.g., reading or sleeping).

Entryway Sensing: PIR with IR/ultrasonic enables fast detection and distance awareness for responsive lighting and security when someone enters or exits.

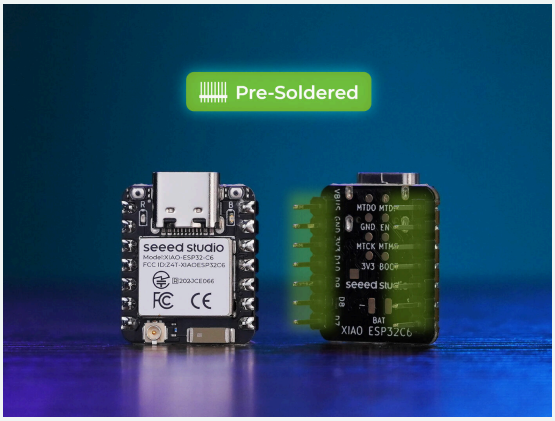
Desk Presence: mmWave ensures continuous detection of stationary users, with optional environmental sensors (light, temp, humidity) for adaptive lighting and airflow control.

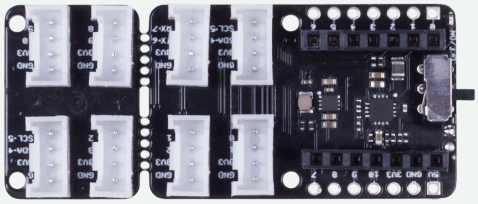
- **For More Complex Environments**

For advanced scenarios—like detecting someone approaching a door or filtering interference—additional sensors can be added. Ultrasonic sensors enable distance-aware detection, thermal imaging helps distinguish human presence in noisy environments, and camera modules provide richer context when needed. This allows your system to handle more complex, real-world conditions with higher accuracy.

This extended sensor stack allows you to move from simple presence detection to predictive, context-aware automation, adapting to more complex and dynamic environments.
FAQ
Can I combine multiple sensors to create "Condition-based" triggers?
Why choose ESP32-C6 for this kit?
How do I configure these sensors in Home Assistant?
How is this different from off-the-shelf presence sensors?
Do I need hardware experience to use this kit?

# Product Gallery



# Applications

- **Built for Home Assistant presence automation**
- **Complex environments via multi-sensor fusion**

## Part List

| | |
|---|---|
| Seeed Studio XIAO ESP32-C6 (Pre-Solodered) | × 1 |
| Grove Base for XIAO | × 1 |

# Resource Links

- https://www.seeedstudio.com/Human-Detecting-ESPHome-DIY-Kit-Highly-Customizable-for-Various-Scenes.html

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