Aqara Presence Sensor FP2

Slogan: Reinvent your space.

Product Portfolio

Content

01 Introduction: Presence Sensor FP2

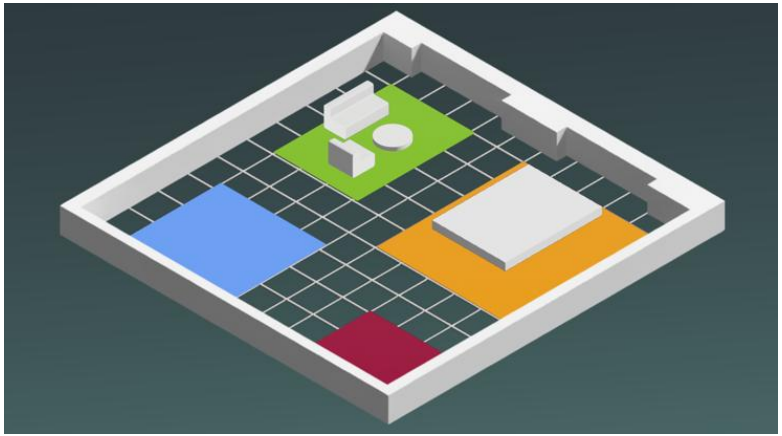
Reinvent your space.

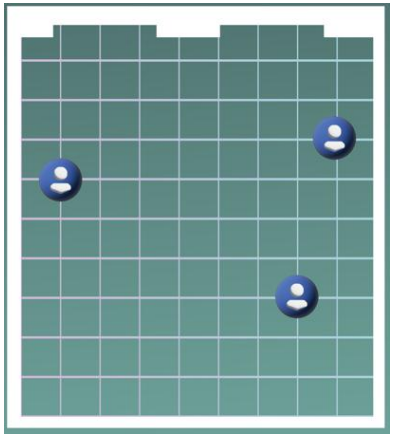
Zone Positioning + Multi-person Detection +Ultra-High Precision +
Control Other Smart Devices via HomeKit, etc.

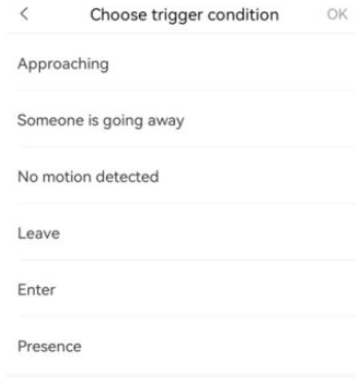
Aqara Presence Sensor FP2 uses cutting-edge millimeter-wave radar technology, which can accurately detect the presence of people even with slight movements. This technology ensures continuity and stability of the smart device. It also has the function of zone positioning, which allows for the automation of different conditions in different zones, such as beds and tables. One space can now be divided into up to 30 small zones and recognize up to five targets (Multi-person Detection). It can also control other smart home devices through ecosystems such as Apple Home to achieve wider applications. It features functions such as human fall recognition and a built-in light sensor. Likewise, it is a great helper that can truly combine the diversity of the user's home life and realize the automation of different personalities.

Zone Positioning	Multi-person Detection	Ultra-High Precision	Control other Devices via HomeKit, etc	Fall Detection and Alerts	Built-in Light Sensor	Local Automation & Various Installation Way
- Up to 30 detection zones -120° Horizontal Detection Angle - Up to 8 m × 6 m Detection Range - Zone Customization -Interference Source Setting - Personal Templates - DIY Stickers	- Tracking up to 5 Persons - Independent Sensing Operation	- Subtle Detection - Interference Compensation - Millimeter-wave Radar Tech - Presence Logging	- Supports Apple Home, Amazon Alexa, Google Home, IFTTT - Detection zones are automatically synced to third-party platforms	- Only in Case of Ceiling Installation - 2 Meters Radius Detection Range - Accuracy of Fall Detection>98%	- Fully Functional Light Detection Sensor - More Flexible and Fun in Lighting Automations - Illuminance Chart	- 2.4GHz Wi-Fi, and Bluetooth (reserved for Matter support) - Wall Mounting - Ceiling Mounting - Angle Adjustment - IPX5 Splash Proof - USB-C Port

*The selling points are ranked based on their priorities.







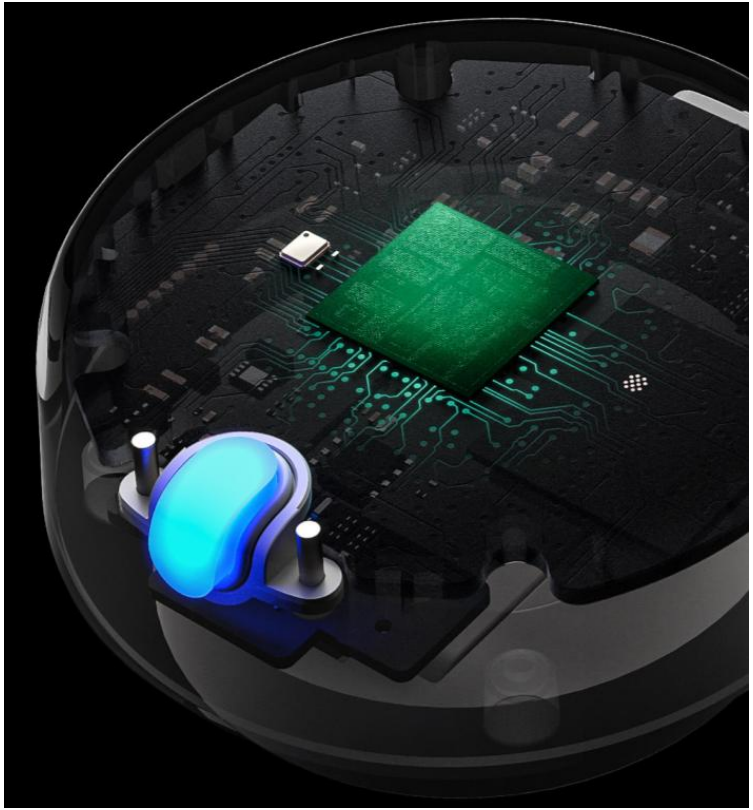
Up to 30 zones are supported to be set. Simultaneously tracks 3 targets.*

Supports custom zone settings and positioning, and triggers automations for each of the configured zones. Finally, only one presence sensor is needed to realize personalized automations of different zones within one space** in your home environment.

*In theory, up to 5 targets are supported to be tracked.
**A recommended open detection space is 10 m^2-40 m^2.

Detection made subtle and more precise – millimeter-wave radar technology.

Taking privacy and detection accuracy into consideration. It can realize non-inductive signal detection without collecting real images. Generally speaking, automation can basically be achieved locally. Compared with infrared sensor detection, millimeter-wave radar technology can detect even the slightest movements and is more stable, even if you sit still or even sleep.



One Sensor, More Zones.

User Benefit: Simplify your life to the max, including simplifying the number of sensors you use. Don't worry about installing, setting up, and maintaining multiple sensors. Now one FP2 can achieve the utility of multiple presence sensors in the past, which is more convenient to manage, set up and use. For example, sitting down by the bed will automatically close the corresponding curtains. Sitting next to the desk, the light automatically adjusts to reading mode. All of the above automation can now be realized with only one FP2 sensor**.

Reasons to Believe: Users can directly use the area division template in the app, or use sticker settings to divide the home environment in the app. At the same time, to reduce the degree of interference, corners, entrances, exits, and interference sources can also be set for some locations. Just one FP2 sensor is capable of tracking room* of up to ca. 430 sq ft (ca. 40 m²).

*A recommended open detection space is 10 m² -40 m² .

**FP2 can only penetrate ordinary cotton clothing, curtains, thin plastic walls, and screen windows, but cannot penetrate solid walls and thick glass.

Enjoy the Convenience and Fun of Automation Life Together!

User Benefit: At the same time, up to 5* people can be detected. It means that while dividing the space, it can also respond automatically according to the position of different people without interfering with each other.

Reasons to Believe: Through the use of millimeter-wave radar detection technology, the radar wavelength is transmitted to the user and bounced back to FP2 for analysis, thereby realizing multi-person state detection at the same time. This means that the multi-person detection technology can detect multiple people at the same time, and keep multiple targets in multiple areas running simultaneously.

* *The best result can be achieved in the case of tracking not more than 3 persons.*

Captures Smaller. Reacts Stabler.

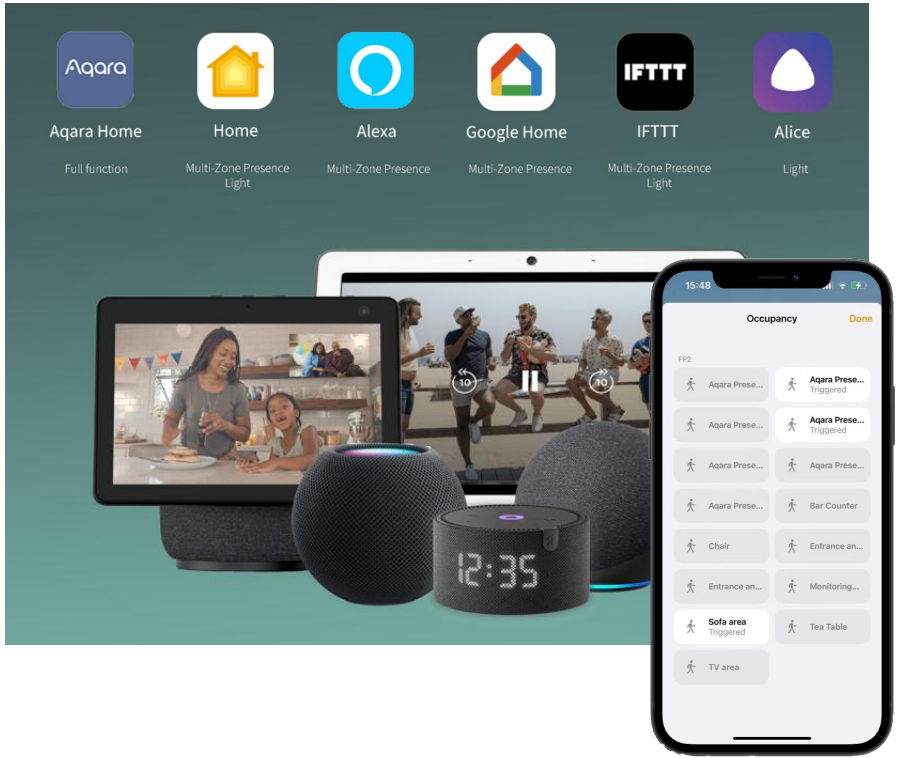
User Benefit: Detects human presence from movements as slight as the rise and fall of your chest when breathing. This means no more waving your hands when the lights shut off because you were too still while reading your book.

Reasons to Believe: Radar sensors are extremely precise, and can capture even the smallest movements. No false positives. Thanks to its on-device algorithms, the FP2 can automatically filter false positives coming from plants, fans and more, and only be triggered in case of actual presence. Moreover, it is wearable-free and does not require a camera monitoring system, which ensures maximum privacy for users.

Comparison of Regular Sensor Technologies

Why do we recommend you to choose the ”millimeter-wave radar technology”? And what is that?

Sensing Technologies	Pros	Cons
Millimeter-wave Radar Sensors 	1. Strong detection range. 2. Low radar power. 3. Accurate perception of distance and angle.	Sometimes, disturbed by some resources, such as fans, and plants. (But FP2 can set them as disturbed resources, thereby avoiding disturbing.)
PIR Sensor	1. Small. 2. Inexpensive. 3. Low-power. 4. Easy to use.	**PIR motion sensors have temperature effects:** if the ambient temperature is high, the precision can be greatly affected. (Passive Infrared) 1. Unable to detect stationary human body. 2. Unable to distinguish multiple people.



Do Even More When You Combine FP2 with a Compatible Ecosystem.

User Benefits: The FP2 is exposed as multiple sensors in HomeKit (and Home Assistant), Alexa and Google Home. You can integrate the sensor easily without requiring a hub, which is apparently the best solution for smart home enthusiasts to expand your smart home setup.

Reasons to Believe: Each zone settled will generate an occupancy sensor in Apple Home, etc. if the FP2 has joined the network. And the name can be synchronization. Satisfied the usage scenarios of multi-ecosystem users, it plans to connect to Matter in the future to achieve more linkage possibilities.

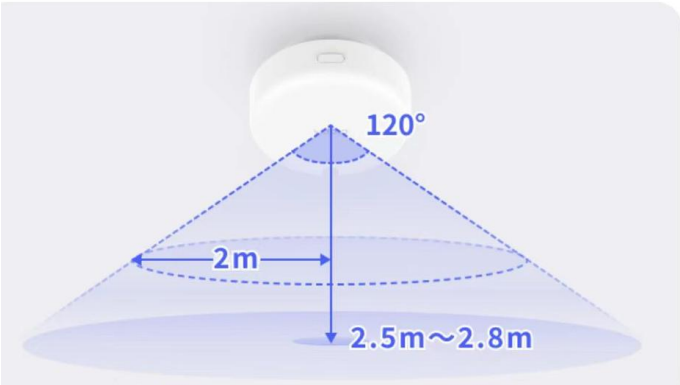
* Please note: the device can be added directly to Home Assistant using HomeKit Controller integration.

03 Selling Point 5: Fall Detection and Alerts

Peace of Mind.
Lessen the Injury from Falling.

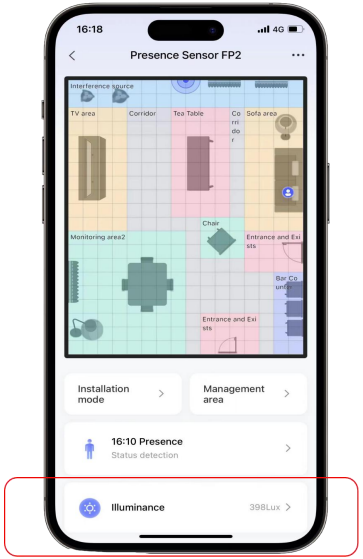
User Benefit: Falling often occurs in the older people. How to know and minimize injury as early as possible after a fall is critical. FP2 detects the fall state and makes a timely alarm reminder on the mobile app.

Reasons to Believe: The FP2 can detect and notify you when a person in a room falls down*. It is made in the most private and convenient way possible: without needing to wear any devices or install a camera for constant monitoring! And the range is a circle with a radius of 2 meters, accuracy of fall detection >98%,and the recommended installation height is 2.5 m-2.8 m.



The range of Fall Detection.

** Only ceiling placement is supported for fall detection.*
*** Fall detection can only identify most fall scenarios and cannot be used as a substitute for medical equipment or vision.*
*** Currently, fall detection cannot distinguish between slowly falling against a wall or passing out after sitting down.*



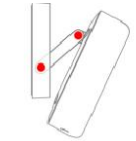
Explores and Works with Light.

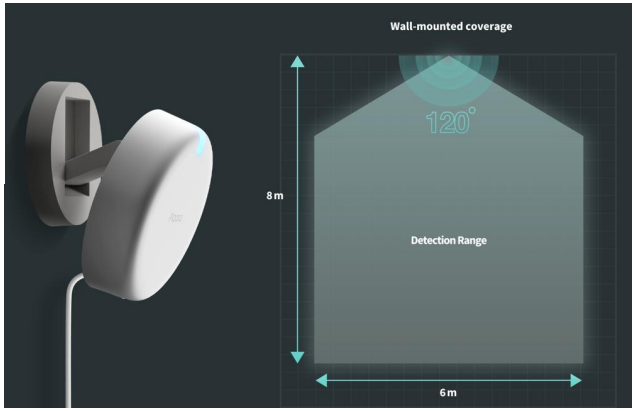
User Benefit: According to the sensed light intensity data, the use of other smart devices in the home can be adjusted in a more scientific and detailed manner. For example, FP2 works with the smart switch to turn the light on or off after the illumination changes. Or it can be used with roller shade driver E1. When FP2 senses a certain amount of light, E1 will open about 50%.

Reasons to Believe: FP2 is the fully functional light detection sensor available within the Aqara ecosystem. With it, the lighting automations become much more flexible and fun. And the built-in light sensor enables advanced darkness based home automation.

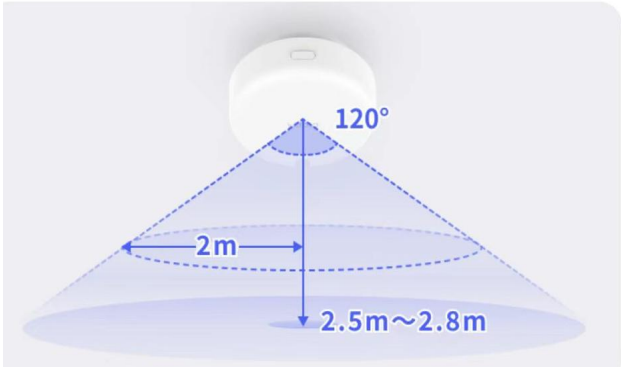
Locally and Flexibility.

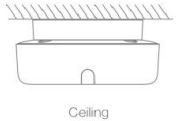
User Benefit: After the setup is complete, the product runs locally. This means that if there is an occasional Wi-Fi network instability, FP2's automation will still run. And it better protects your privacy. Moreover, it has a variety of installation methods to adapt to various installation scenarios.





Reasons to Believe: FP2 is widely used in various protocols, such as Wi-Fi and Bluetooth* etc. It also has 2 installation methods, such as wall installation** and ceiling installation, and the detection angle can be adjusted. And the largest physical adjustment angle up to 120 degrees.





*Bluetooth is available for the future feature as Matter.
** Some user data proves that corner installations may be more effective in detection.

Scene 1: “Space Redefinition” scene (old users of motion sensors)

User pain point – In the past smart home life, people often need to install small motion sensors in various places. Because the detection range and capability of the sensor are limited, the user needs to install multiple sensors. Resulting in inconvenient user management, troublesome settings and other issues.
Scene explanation – FP2 redefines the “virtual space” in the app. Re-divide the space within the range of 40 m³ (8 m ×6 m). This means that in such a range, users only need one human presence sensor to realize custom automation in multiple virtual small spaces, to reduce the clutter and energy consumption of users managing multiple sensors. Now one FP2 presence sensor is approximately equal to the running usage of multiple old sensors, making continuous energy saving possible. Simple life starts with simplifying smart home devices.

Scene 2: Quiet reading scene (old user of motion sensor)

User Pain Point – Traditional PIR motion sensors typically cannot sense when the user is sitting quietly. As a result, some automation equipment cannot sense and suspend work. Therefore, the user needs to shake their hand frequently to trigger sensor sensing.
Scene explanation – When users are automating with old PIR motion/presence sensors, it often happens that the sensing automation cannot be triggered due to sitting still. Using FP2 can effectively solve this problem. The millimeter-wave radar technology applied by FP2 can keep detecting even if the user is sitting still, by sensing the user's heartbeat and breathing.

Scene 3: Control other smart home sub-devices by connecting with Apple HomePod mini, etc. (new or old sensor users, but have certain smart home devices and concepts)

User Needs – Suitable for users who already have Apple Home, Google Home and Amazon Alexa at home. In the past, users used third-party products and often needed voice interaction to start other devices. Is there any other way to make the user's intelligent linkage behavior natural without spending too much effort?
Scene explanation – FP2 is connected to the Apple HomePod mini device, the user only needs to enter a specific small area, and the FP2 senses the presence of the human body, which can trigger other smart lights to react by turning on the lights.

Scene 4: Fall detection and lessen the injury from falling (new sensor users)*

User Needs – Falls are easy to occur in the elderly group. Knowing the fall situation as soon as possible is an important way for the elderly to prevent deep-seated injuries caused by falls, especially for the elderly living alone. Therefore, it is very significant to detect the fall state and obtain information reminders in time.
Scene explanation – FP2 is installed in relatively narrow places by ceiling installation, such as kitchens, toilets, or bedrooms. Real-time detection of fall status, and remote feedback on the app, so, family members far away can get faster reminders and alarms.

* *Fall detection can only identify most fall scenarios and cannot be used as a substitute for medical equipment or vision. Currently, fall detection cannot distinguish between slowly falling against a wall or passing out after sitting down.*

Automations Scenes

1	Heading	Lean Away Mode without delays.
	IF-THEN	IF Absence is detected by the Presence Sensors in each of the rooms THEN Turn off the lights, Air Conditioning and arm the Alert System
	Description	Before, you needed to wait for dozens of minutes to make sure that the Away Mode will not be triggered while someone was at home. Now, you will be able to save energy and increase the protection without enabling the Away Mode manually.
	Devices	Presence Sensor FP2 + Hub + Smart Plug/ Smart Lights

2	Heading	Wake Up automations that don't bother your family members.
	IF-THEN	IF Someone enters the bathroom while presence is still detected in the bed zone THEN Don't open the shades* *Two automations should be configured: for presence and absence in the bed zone
	Description	The FP2 can detect, if someone is still in bed, and the Wake-Up automation will not be triggered in case another person wakes up.
	Devices	Presence Sensor FP2 + Hub + Curtain Driver

3	Heading	Accent lighting that follows you.
	IF-THEN	IF Presence is detected on the desktop, THEN Turn on the corresponding lights
	Description	The lighting can now follow you around the room: only the lights near you will turn on, while other lights will turn off one you leave the area!
	Devices	Presence Sensor FP2 + Hub + LED Strip/ Smart Lights/Smart Plug

4	Heading	Detect the presence, and start home security.
	IF-THEN	IF Presence is detected in the living room, THEN Turn on the Aqara camera G3 to monitor.
	Description	Turn on the G3 camera by detecting the presence of people in a larger space: if someone is detected by FP2, the G3 camera will be automatically turned on for monitoring and can cruise about the living room.
	Devices	Presence Sensor FP2+ Camera Hub G3

FP2 Future Features

(The FP2 is ultimately future-proof.)* Its state-of-the-art hardware can support much more cutting-edge features:	For Marketing	Actual Plan
Matter Support	After Matter specification support is released	TBD, not specified yet
Sleep Monitoring	Q3 2023	Jun
People (Entering The Room) Counting	Q3 2023	Jun
Posture (Lying down, Sitting, Standing, Walking) Detection	Q3 2023	Jun
Multiple Sensors on One Map	H2 2023	Sept

Thank You!