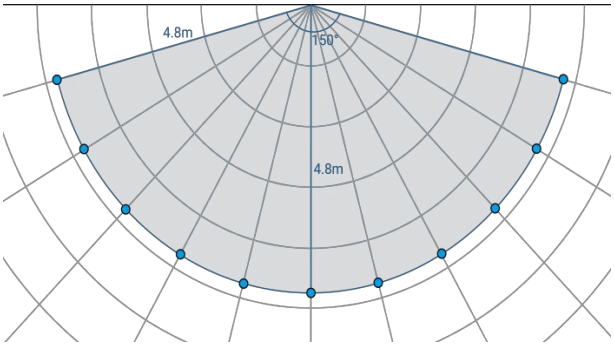
OCCUPANCY & PRESENCE

LoRaWAN Room Presence Sensor

Knows a room is in use, even when everyone is sitting still.





Overview

The LoRaWAN Room Presence Sensor reports whether a room is occupied or vacant. A PIR sensor picks up movement and wakes a 24 GHz millimeter wave radar, which confirms presence down to slight movement, so a meeting room is not marked empty just because people are sitting still. Status is sent over LoRaWAN to ioX-Pulse, where you see live room status and history on your dashboards.

No images are captured, and detection works in low light or complete darkness. The sensor mounts on the wall on a magnetic bracket that tilts to cover the room and runs for years on two batteries.

Key Features

- **Radar plus PIR.** 24 GHz radar and PIR detect both movement and slight movement, with a recognition rate of up to 99%.
- **Privacy by design.** No camera and no images; works in low light and complete darkness.
- **Tunable to the room.** Separate trigger and hold sensitivity, a 1 to 60 minute vacancy delay, and scheduled hibernate periods.
- **Up to 6.7 years on two batteries.** Magnetic wall bracket, remote configuration by LoRaWAN downlink, and over-the-air firmware updates.

Applications

- **Meeting and conference rooms.** See which rooms are actually in use, not just booked.
- **Facilities and cleaning.** Plan cleaning and service around the rooms that were actually used.
- **Private offices and huddle rooms.** Track how often small rooms are occupied.
- **Space utilization.** Build a picture of real room use before you resize or redesign a floor.

Technical Specifications

Detection	
Technology	24 GHz millimeter wave radar, triggered by PIR
Recognition rate	Up to 99%
Radar angle	150°
Radar range	Movement up to 24.6 ft (7.5 m); slight movement up to 15.7 ft (4.8 m)
PIR coverage	110°, up to 23 ft (7 m)
Light status	Bright or dim (by default bright at 700 lux or more, dim at 300 lux or less)
Installation	
Mounting	Wall only, on the included magnetic bracket; ceiling mounting is not supported
Mounting height	8.2 to 9.8 ft (2.5 to 3 m)
Tilt	60° or 75° recommended; bracket allows an additional 30° of deflection
Room size	Up to 13 x 13 ft (4 x 4 m) at 8.2 ft and 60°; up to 20 x 20 ft (6 x 6 m) at 8.5 ft and 75°
Wireless	
Protocol	LoRaWAN 1.0.3 (1.0.2 selectable), Class A, OTAA or ABP
Frequency bands	US915, EU868, AU915, AS923, KR920, IN865, RU864, CN470 (ordered by band)
RF output	Up to +20 dBm (915 MHz)
Receive sensitivity	Down to -137 dBm (300 bps)
Reporting	Status every 10 minutes by default (1 to 1,440 min), plus occupancy event reports
Features	
Sensitivity	Adjustable occupancy trigger and hold sensitivity
Vacancy delay	Reports vacant after 3 minutes with no presence by default (1 to 60 min)
Hibernate	Scheduled periods with detection and reporting paused
Configuration and firmware	Remote configuration by LoRaWAN downlink; over-the-air firmware updates
Power	
Battery	2 x ER14505 Li-SOCl2, 2,700 mAh each
Battery life	Up to 6.7 years at SF7, about 4.6 years at SF10 (US915, 50 triggers per day, 77 °F)
Physical	
Operating environment	32 to 86 °F (0 to 30 °C); 0 to 95% RH, non-condensing; IP30, indoor use
Size	Ø 2.76 x 1.91 in (Ø 70 x 48.5 mm)
Weight	3.2 oz (89.6 g) body; 1.3 oz (38.2 g) magnetic bracket
Housing	White ABS, UL94 V-1
Certifications	FCC, CE

ioX-Pulse

Connect this sensor to ioX-Pulse to see live room status and occupancy history on your dashboards, and get email, SMS or in-app alerts when conditions change.

Start Your Free Trial

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