

# Patient Wandering & Health Monitoring

Radar-based ambient monitoring sensor



Radar sensing



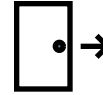
Fall detection



Vitals



Bed presence



Wandering



Privacy-first

## Highlights

- Contactless safety monitoring**  
 Continuous sensing without wearables, cameras, or microphones.
- Fall and inactivity detection**  
 Detects falls, motionless events, and abnormal activity patterns.
- Vitals and sleep insights**  
 Tracks breathing rate, heartbeat rate, sleep state, and bed presence.
- Wandering awareness**  
 Detects room/zone movement patterns to support elopement risk workflows.
- Environmental context**  
 Room temperature helps add context for comfort and safety.

## Key Capabilities

<b>Technology</b>	Microwave radar (ambient, contactless sensing)
<b>Safety events</b>	Fall detection; prolonged inactivity; proximity alerts
<b>Vitals</b>	Breathing rate; heartbeat rate; respiratory arrest
<b>Bed monitoring</b>	Bed presence; sleep state; motion in bed
<b>Activity</b>	Human presence; motionless; movement/activity level
<b>Privacy &amp; integration</b>	No camera/no microphone; event outputs for nurse call / monitoring platforms



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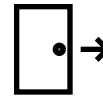
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## Radar-Based Operation

Ambient radar sensing • Privacy-first • Follow steps below

Tip: Verify event reporting on the nurse call console or monitoring dashboard. Configure alerts by care area and escalation policy.

### 1 Install the sensor



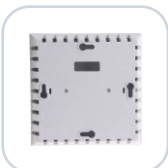
- Mount the sensor in the room (location per coverage plan).
- Define zones: bed area, room area, exit area.

### 2 Sense micro-movements



- Radar captures motion, posture change, and micro-movements.
- Continuous operation, day and night.

### 3 Classify health events



- Detect falls, inactivity, bed presence, and sleep state.
- Extract breathing and heartbeat rates.

### 4 Trigger alerts

- Real-time alarms for fall, respiratory arrest, or prolonged inactivity.
- Route notifications to staff workflows and escalation paths.

### 5 Use cases and workflow integration

- Fall risk monitoring and overnight safety checks
- Memory care wandering awareness (room/zone movement patterns)
- Bed presence and sleep state monitoring
- Respiratory monitoring and escalation for arrest events
- Comfort context with room temperature

#### Radar Sensor

Room events + vitals

#### Monitoring Platform

Dashboards + logs

#### Staff Notifications

Nurse call / mobile / PA