How to deploy sensors for maximum accuracy, reliability and long term success

OpenSensors

In today's session we'll cover

What sensors are best suited to a variety of spaces and challenges

Common challenges and mistakes to avoid and how to navigate them

Tips on how to ensure sensors provide the most accurate data

Learn why deploying sensors across a LoRaWan network is beneficial

Questions

REC

Today's host

David Thomas
Business Operations

OpenSensors

Choosing the right sensor

Desk PIR

Detects heat and motion on individual assets

Footfall Counter

Counts number of people passing into or through an area

Room Counter

Detects number of individuals in a space

Environmental

Monitors CO2, Temperature and Humidity levels

Key considerations in planning:

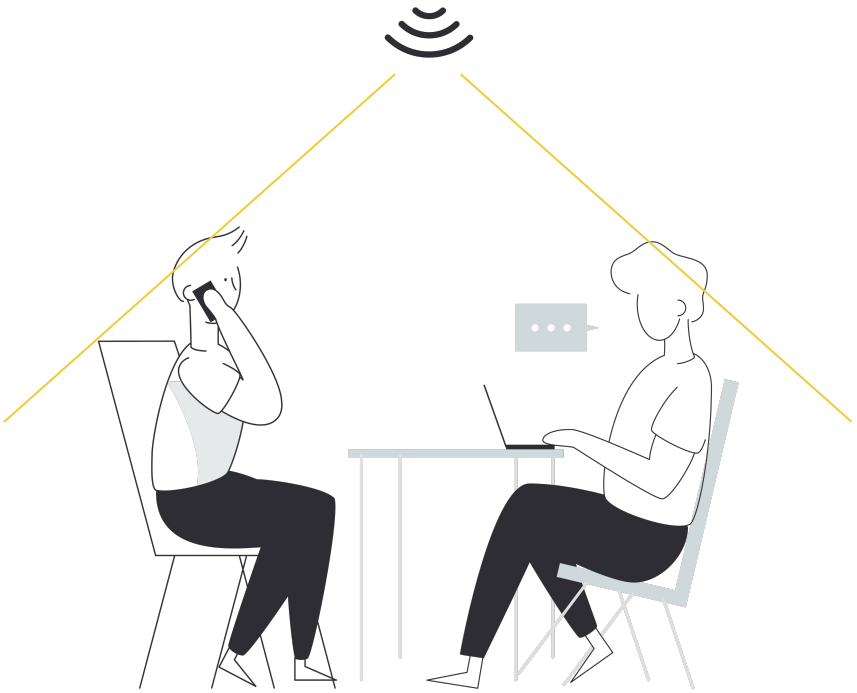
- Define goals and objectives of study ahead of deployment
- What level of granularity is necessary?
- What are the timeline considerations?

Key considerations in sensor placement:

- What is the nature of the space - fixed space or flexible?
- Are there any unusual spatial considerations?
- How to maximise longevity of placement?

Example 1: Deploying Counter Sensors

Wall versus ceiling mounted



Example 2: Deploying Environmental Sensors

Key considerations in placement:

- Capture data from area where people spend most of their time i.e. head height
- Key areas to consider:
  - Communal areas
  - Poorly ventilated spaces
- Spread sensors throughout office to avoid making decisions based on isolated incidents

Key benefits of deploying across a LoRaWAN network

LoRaWAN is a network layer that runs on top of the LoRa radio layer

- LoRa stands for Long Range which in a building context means exceptional range
- LoRaWAN is an open standard allowing seamless interoperability between different manufacturers devices
- LoRaWAN networks can be public or private
- LoRaWAN provides end to end device security

Benefits of using a LoRa network over WiFi & Bluetooth

- **Minimal Path Loss** - obstructions caused in data transmission by buildings
    - Higher frequencies suffer greater, meaning Bluetooth & Wifi signal don't travel
- **Segregated from IT Network**
    - No interference or affect from existing systems and secure from 3rd party access

The importance of communication

- Involve key stakeholders early in planning stage to understand full scope and potential of data
- Avoid employee confusion and scepticism by defining purpose of sensors and outlining capability
    - No personal data gathered
    - Focus is on space and asset usage not individual behaviour
- Minimise accidental removal or movement of sensors

Thank you

Connect with us

Opensensors.com

OpenSensors.io

OpenSensors.io

hello@opensensors.com

Shaping the future of the workplace

OpenSensors