



Smart Housing 2022

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Environmental Sensors



Why Environmental Sensors?

- Addresses several challenges:
 - Condensation, Damp and Mould
 - Fuel poverty
 - Compliance
 - Carbon footprint
 - Resident health and wellbeing
- Assists strategic direction:
 - Homes Act, EESSH (Energy Efficiency Standard for Social Housing), COP26, PAS 2035
- Easy to install and manage

Environmental Sensors



 HomeLINK®

Temperature +
Humidity

Ei1020



 HomeLINK®

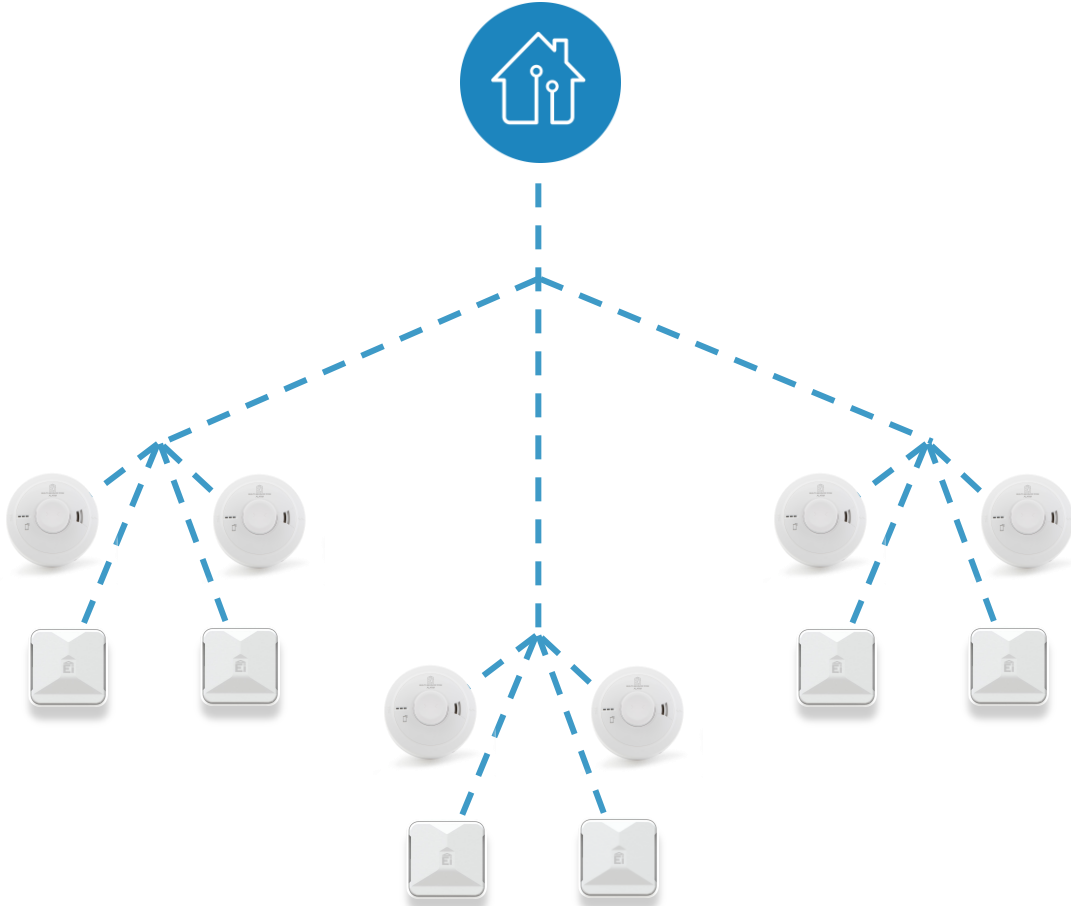
Temperature + Humidity +
CO₂

Ei1025

Features

- Two models
- Temperature and humidity sensors built in
- Additional CO₂ sensor in Ei1025
- 10 Year Lithium Battery Powered
- Links to SmartLINK Gateway via RF
- Tamperproof locking mounting plate

Actionable Insights



- Connected sensors across multiple properties will give millions of data readings
- We use advanced [Machine Learning \(Artificial Intelligence\)](#) to constantly interpret this data
- Clear [Actionable Insights](#) are then presented to the user

Actionable Insights



 HomeLINK®

Temperature +
Humidity

Ei1020

Insights

- Condensation, Damp, Mould
- Energy Efficiency
- Excess Cold/Heat/Fuel Poverty
- Asset Management



 HomeLINK®

Temperature +
Humidity + CO₂

Ei1025

Insights

- Condensation, Damp, Mould
- Energy Efficiency
- Excess Cold/Heat/Fuel Poverty
- Asset Management
- Indoor Air Quality
- Void Risk
- Allergy Risk
- Ventilation

Actionable Insights

Damp And Mould Risk Calculated As High

Insight

Damp and Mould Risk risk calculated as high

ACTIVE



- Analysis of data including:
 - Temperature
 - Humidity
 - External temperature and humidity - local weather data
- Algorithm calculations
 - Aspects such as dew point for condensation

Allergens Risk Calculated As High

Insight

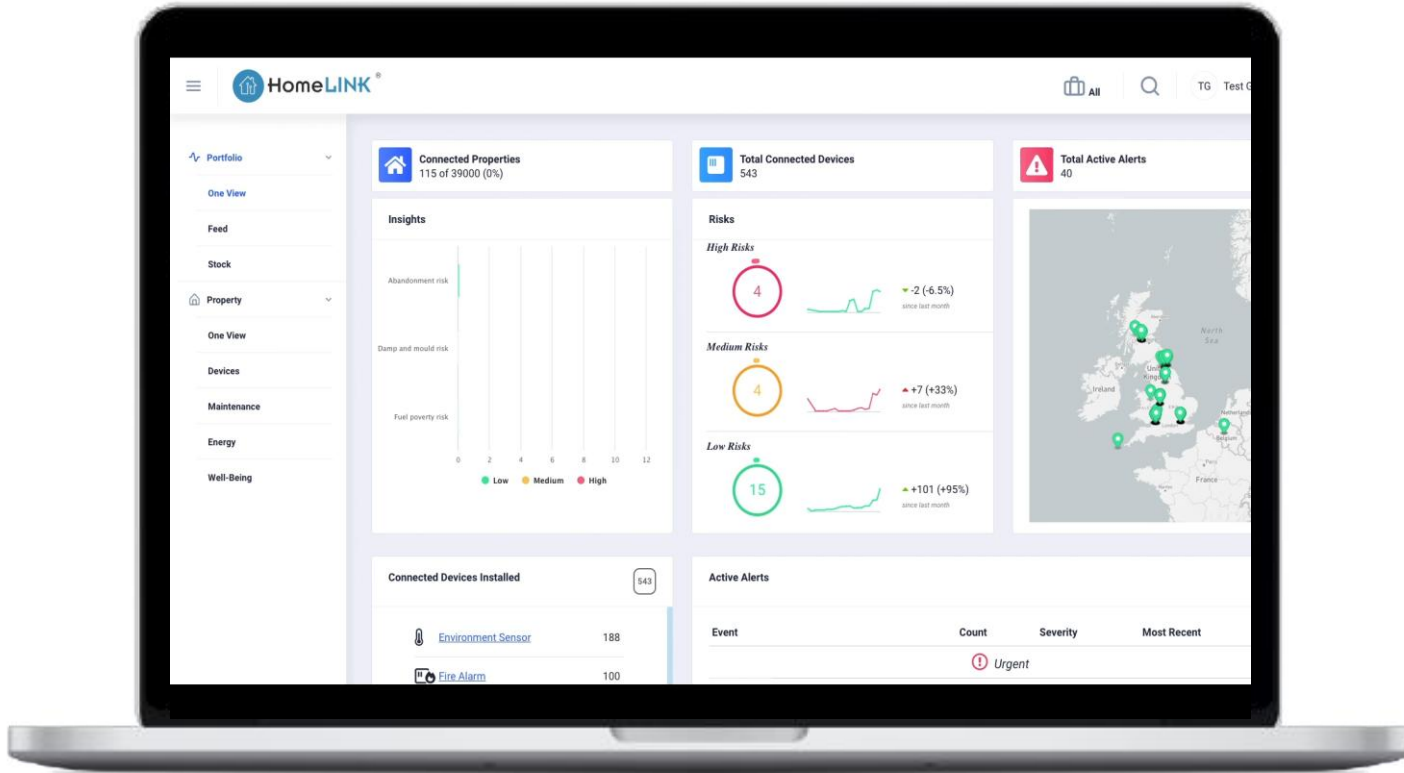
Allergens risk risk calculated as high

Event



- Analysis of data including:
 - Temperature
 - Humidity
 - Room type (e.g. living room, bedroom = higher allergen risk)
- Algorithm calculations
 - Hygrothermal modelling

Platform - Portal



- Designed with social landlords
- KPI based
- Detailed property / portfolio view
- Designed for multiple user roles
- Direct integration into IT systems (APIs)

Platform - Resident App



- Features and notifications
- Improved resident engagement
- Enhanced business case
- Improved resident health and wellbeing

Case Study - Environmental Sensors

19% improvement in ventilation
Better respiratory health
Better maintenance outcomes



Reduction in damp and mould risk
Empowerment led to behaviour change
Now 'low' risk across all properties

Identified mould
caused by
structural and
lifestyle issues



Highlighted a long-term unexpected
property abandonment



Identified homes with
poorer thermal rating
for potential
investment



Overview



600+
Accounts



20,000+
Systems Installed



120,000+
Devices Connected

4,500,000+
System Events



**SMARTER HOMES
SAFER COMMUNITIES**

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IOT FOR HEALTHIER, SAFER HOMES

The use of technology within the housing sector is rapidly accelerating as it seeks to solve some of society's most serious challenges.



Join us to explore the key theme of IoT for healthier, safer homes and how this technology contributes towards resident wellbeing, indoor environmental health, sustainable buildings, and the transition to net zero.

The event will see keynote speaker, Professor Tim Sharpe explore the use of technology in sustainable buildings and the future of building standards, as well as detailed case studies about how IoT is transforming health and safety within the built environment.

Agenda



8:30 -
13:00



Question
& Answers



Keynote
Speaker



Net Zero
Presentation



Case
Studies



IoT in Social
Housing

LONDON
London Science Museum
Thursday 26th May



LONDON
The Royal Institution
Friday 27th May



GLASGOW
Glasgow Science Centre
Monday 6th June



MANCHESTER
Science & Industry Museum
Monday 20th June



BIRMINGHAM
ThinkTank Science Museum
Tuesday 21st June



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