

Designing for a more accessible zero energy system

A human-centered approach to zero energy housing renovations with focus on visually impaired residents

Research

Zero energy renovations



Before

After



Accessibility

I combine **zero-energy housing renovations** and **Inclusive design** to discover the needs of residents. The focus lies on visually impaired users.

Undesired

Residents' expectations

System's functioning

This is the current situation of mismatch.

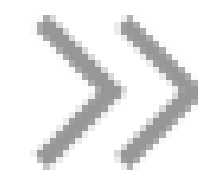
Design Intervention

Desired

residents' actual usage

system designers' envisioned usage

I want to contribute to the future situation of a match through my design.



Design Intervention

Target group // Demand side of a renovation

1. Booklet

The content of this booklet aims to provide support from **human-centered design perspective in the form of guidelines and recommendations** for renovation projects with focus on visually impaired residents.



Target group // End users - residents

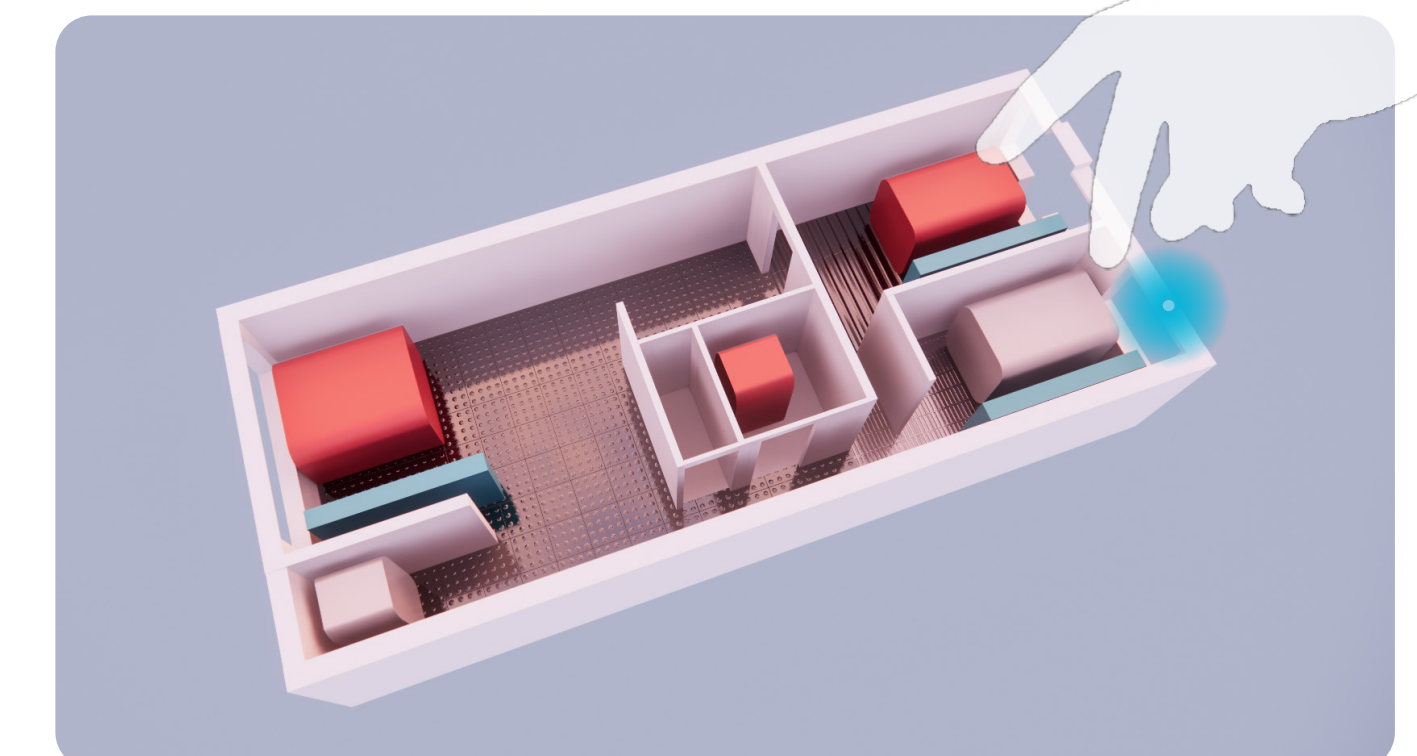
2.1 Breathing Walls

An interactive convector cover provides heat feedback and light ambience. It enables the resident to be well aware of the actions of the system.



2.2 Tactimap

A mini physical 3D overview of heating and ventilation systems in a space, incorporates tactile and thermal feedback for informing the resident.



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