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Improving Tactile Navigation in Public Buildings for Blind and Visually Impaired People

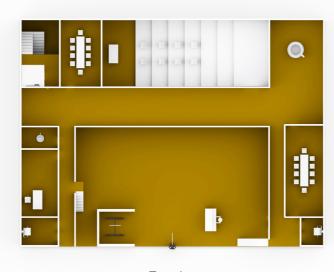
#### ntroduction

Sighted people are constantly surrounded by visual information that allows an easy and comfortable orientation in the physical reality. However, what design could fulfil the need of independent navigation in public buildings for blind and visually impaired people? Haptic Guide is the answer.

### Main features

Haptic Guide is a set of haptic icons made for eight places, including reception, cloakroom, toilet, door, elevator, stairs, café and smoking room, which can be universally found in public buildings. Haptic Guide has six main features.

- Intuitive usage: A legend full of Braille is not needed because Haptic Guide could speak for itself. With the help of symbolizing a certain object or component in a hand size, B&VI could perceive the efficient information fast and accurate.
- Not only shapes, but also materials: Specific materials
  of a certain object are integrated in Haptic Guide. For
  instance, ceramics is applied to the icon of toilet.
- It could move, like what it does in reality: Movable components are integrated in some icons to make them more recognizable by touch. For instance, the haptic icon of door could be open with a handle.
- Easy adaptation: Haptic Guide could be universally applied to most public buildings.
- Potential of integrating auditory features: The modular components of Haptic Guide allow for the possibility of integrating auditory representation.
- **Visual appeal:** To make Haptic Guide looks like a set, all the icons are consistent in dimension and style.



Top view



Perspective view

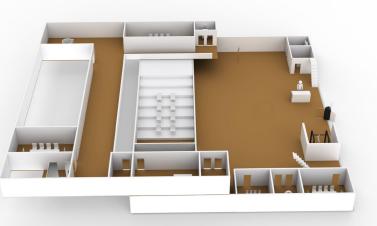
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### How it work

Haptic Guide is used with a three-dimensional interior scale model base. By touching the haptic icons placed on the model, B&VI people could intuitively perceive the locations of the most functional places in the represented building. Based on the spatial layout information provided by the model base, users are able to plan routes to these destinations or to use them as landmarks with their own navigation strategy.

### Built-in drawer structure

To allow enough space for users to explore the ground floor, the model base has a drawer structure, which makes the upper floor movable.



Expanded position