Project Plan

WP1 Eliciting Everyday Touch Characteristics

WP2 Discoverability, Disambiguation, and Mappings

WP3 Multimodal Feedback

WP4 Fabrication and Recognition

WP5 Integration and Validation

Understanding Touch Characteristics on Textiles

- How is touch interaction on textiles different from touch on glass?
- How well can humans differentiate between different material areas and seam styles?
- How does human touch interaction differ depending on the everyday object touched?

How to Create Complex Textile User Interfaces?

You can do dozens of actions in a smart home. Many of the controls for those were moved to the smartphone even though the surroundings offer many alternatives.

- How to design complex textile UIs for the applications in the smart home?
- What should signifiers look like if they are stitched onto textiles?
- How to guide users to a certain UI element?

Creation of Tactile Output

Inspired by our Springlets research on silent on-skin tactile output, we could create tactile output on textile interfaces using shape memory alloys (SMAs). The SMA could be embedded into the fabric or move objects underneath a textile layer.