

FrontPanel: Tangible User Interface for Touch-Screens Dedicated to Elderly

【Summary】 :

We will introduce FrontPanel, a tangible user interface that enhances the capabilities of the iPad. More specifically, FrontPanel is designed for older people who have difficulty interacting with touch screen tablets due to lack of accessibility.

【FrontPanel】: Similar to the old transistor radio, the FrontPanel contains a total of six knobs, switches and sliders.

Toggle Switch: Home Button

Rocker Switch: Closing Applications

Push Button: Moving from one Page to Another and Select a Program

Keypad Switch: Menu Navigation

Encoder Switch: Control Volume

Slider: Zoom Function



Figure 1: FrontPanel: a total of six controllers that allow to interact with several iPad functions (bold).

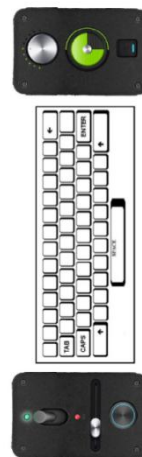


Figure 2: The final prototype of FrontPanel. The two blocks plug into the keyboard on both sides to share the load between hands and facilitate the interaction.

【Subjective analysis】 :

Next : Quantitative analysis of the accuracy and time of the operation.