AirTouch Panel: A Re-Anchorable Virtual Touch Panel

Shih-Yao Lin*, Chuen-Kai Shie, Shen-Chi Chen, Yi-Ping Hung
National Taiwan University, Taiwan, ROC
{*d00944001, hung}@csie.ntu.edu.tw

This paper proposes a screen-less virtual touch panel, called AirTouch Panel, which can be positioned at any place with various orientations around users.

Our virtual touch panel provides a potential ability to remotely control the home appliances, such as television, air conditioner, etc. Our system allows users to anchor the panel at the place with comfortable poses. If the users want to change panel’s position or orientation, they only need to re-anchor it, and then the panel will be reset.

Most importantly, we explore the design of such imaginary interface through two user studies. In our user studies, we analyze task completion time, satisfaction rate, and the number of miss-clicks. We are interested in the feasibility issues, for example, proper click gesture, panel size and button size, etc.

Figure 1. AirTouch Panel is a re-anchorable virtual touch interface, which can be positioned at any place with various orientations around users. Our AirTouch Panel provides a potential ability to remotely control the home appliances, such as TV.