Vibro-Touch

Courtney N. Reed, Nihar Sabnis

In our research, we examine tactile representations which are used for user interaction and system notifications. This swatch works as an interface to store and playback vibrotactile stimuli. This allows for easy, cost effective (~€20) reproduction and exploration of tactile feedback. Typically, feedback designed and used in research is described through written formats. This swatch provides a companion to physically experience the vibrations. The tactile sensation is stored on a microcontroller and played back through a speaker which works as an actuator. The swatch could be given to others to test and experience different sensations in a simplified, modular format. For instance, rather than redesigning feedback for each new study, the tactile feedback could be shared and reproduced for new research. The code on the microcontroller can be changed or updated to have multiple "swatches" in one. In other applications, the swatch could also play audio feedback.

Materials:
Teensy 3.2 microcontroller, propshield, voice coil speaker, USB cable, jumper wires

Tools & Techniques:
Soldering to connect components, C++ to edit and create new tactile experiences.

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