

[D-21] eClover: A Combined Electrostatic and Four-Tactor Wearable System for Eyes-Free Interactions

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We present a wearable prototype combining an electrostatic interface with four tactors worn around the wrist. In addition to vibrotactile alert signals, the system allows the user to “pull” information by entering finger gestures on the electrostatic display. By adjusting the extent of high and low friction areas along the length of the electrostatic display, the system can provide relative information on time elapsed, steps taken, etc. We explore scenarios for eyes-free interactions with variable surface friction and vibrotactile information, such as keeping track of presentation time, to support users with visual impairments or situational blindness.