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Interaction in Virtual Reality
Exploring a Wearable Touch Screen for Precise Selection

Open Bachelor‘s/Master‘s Thesis

Background

The position of the user‘s hands in virtual reality (VR) can be tracked with hend-held controllers (e.g. HTC Vive, Oculus Rift) or optical sensors (e.g. Leap Motion). While this enables a reliable interaction with close-up interfaces and large widges (e.g. UI buttons), small gestures and out-of-reach interfaces a still challenging.

Scope of the Thesis

The most common solution for out-of-reach and precision pointing is the laser pointing methaphor. With increasing distance to the target interface the influence of hand jitter increases, thus making fine selection hard to nearly impossible. The goal of this theses is to implement and evaluate an input concept that combines intuitive direct interaction for within-reach interfaces with indirect input for out-of-reach interaces on a smartwatch. In several use cases the interaction technique will be evaluated against regular pointing in terms of precision, user experience, and user comfort (arm fatigue).

Contact

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