



Drone UI: Utilizing Drones as Mobile User Interfaces

Open Bachelor/Master Thesis

Background

With drone technology and computing hardware growing lighter, drones (e.g., quadcopters) can now handle a payload sufficient to carry sensors and actuators. This enables to bring user interfaces into a third dimension. While drones were already considered for flying sensors, displays, and haptic props, little is known about the human-drone interaction design space. Besides, a small drone swarm homed on a wearable (e.g., backpack) may act as a personal helper, where each drone has different assignments and special skills (e.g., information display, video recorder, or haptic feedback provider).

Research Goal

The aim of this thesis is to investigate how to utilize one or multiple drones as a user interface and exploring the design space thereof. A related work research should be conducted, and a prototype built upon existing quadcopters can be designed and implemented. Finally, the defined hypothesis may be evaluated by conducting a study.

Based on bachelor/master level the scope is adapted.

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Images:

<https://dl.acm.org/doi/10.1145/2750858.2805823>

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