



BA/SA/Group/Lab:

## Magic Android Controls

Modern smart phones come with large touch screens and stylish housings. It seems that hardware manufacturers try reduce the number of physical buttons with every new hardware generation.

However, this cool button-less look has a serious disadvantage: It's hardly possible to control the device without looking at it. The lack of physical buttons renders it hard to perform an operation when the phone is in the pocket of a jacket or in a purse. But in many cases one would like to execute a simple command on the smart phone without having to take it out of the pocket, like controlling music playback or ending a call.

This thesis addresses this problem by designing and implementing new ways to control button-less phones in a comfortable manner using built-in sensors. A known example that illustrates this concept is the *shake-to-skip* feature of some mobile music players that uses an acceleration sensor to detect shake events and skip the current song, once a shake event is detected.

The goal of this thesis is to create new and "magic" ways to control an Android device. If you are a creative person and are not scared of raw sensor data, feel free to contact me to discuss details of the project.



**Requirements:** Good programming skills (preferably in Java) and some creativity are advantageous. The student(s) should be able to work independently on the topic.

### Contacts

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