



Master Thesis

18.03.2026

Development of Unified Interface for Assistive Devices or Gaming

Simplify the control of assistive devices for cognitively or physically impaired people in everyday life. A single, individual controller that can control all the person's assistive devices empowers the user to be more independent. This also applies to using multiple gaming platforms.

Overview

Cynteract GmbH is developing and distributing rehabilitation devices globally. There is expressed interest in using the Cynteract devices as a simplified, single input device for assistive devices (occupational therapist feedback) or gaming ("gaming for all", distributor feedback).

A single, easy-to-use input device can help the user to control assistive devices more independently, especially when using multiple devices which provide different interfaces on their own.

A similar, but separate topic is the usage of a single controller in gaming. An accessible controller should work across smartphone, computer and gaming consoles.

Cynteract GmbH provides:

- Direct feedback from occupational therapists and medical devices distributors during development.
- Cynteract devices as testing prototypes and as a development platform.
- Experience in developing user friendly devices in the context of rehabilitation.
- Regular internal reviews and feedback.

Goals

1. Provide an overview of currently used combinations and compatibility of controllers, assistive devices and gaming platforms.
2. Integrate Cynteract devices into an existing cross-product framework, if applicable. Otherwise, provide software and/or hardware connectors to connect Cynteract devices to selected assistive devices or gaming platforms. Using and developing open-source software is preferred.