

3D printed game controllers for individual needs

Satakunta University of Applied Sciences wellbeing enhancing technology research team designs and makes activation games for rehabilitation purposes. The activation games and special game controllers were designed to motivate and intensify physical rehabilitation. Important in the game development was to generate tools for game modifications, based on the user's accessibility requirements, personal likes and rehabilitation needs (individualization and motivation).

3D modelling and 3D printing offered countless amount of possibilities to design different controllers. Through several designing and prototyping revisions different individual needs were taken into consideration. Finally, the controller design formed into a modular solution. The main unit of the controller contains the electronics for controlling the games. On the surface of the main unit, there are several threaded holes for insertion of different individual grips or handles.

Using the same modular design, gives the ability to answer the needs of everyone. Examples of the 3D printed controllers can be seen in the figure.

