

## Upper extremity testing and evaluation

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**Background:** Hand functions, such as reaching and grasping, play a very important role in social functions and in performing activities of daily living. Reaching movements in children with neuromuscular disorders deviate more from a straight movement trajectory and are less forceful and slower compared to healthy children.

## Goal

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- To determine the effectiveness of the YouGrabber in neurorehabilitation aimed at the improvement of upper extremity functions in children with congenital or acquired neuromuscular disorder.
- To investigate the usability and efficacy of different existing and new assessments of the upper extremity functions and other outcome measurements for the evaluation of neurorehabilitative interventions with virtual-reality based therapy systems and robots.
- To investigate the influence of these novel therapy strategies on different attentional functions.

## Project onset

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2012

## Project members

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## Sponsor

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