

Well fitted orthosis

The occupational therapist will form the precut orthosis to the hand of the patient to ensure a personalised fit, to provide comfort. The orthosis is made from thermoplastic orthopaedic material, with an extra comfort layer on both sides. The size orthosis is kept to a minimal design to be comfortable to wear all day and do not hinder during side activities.

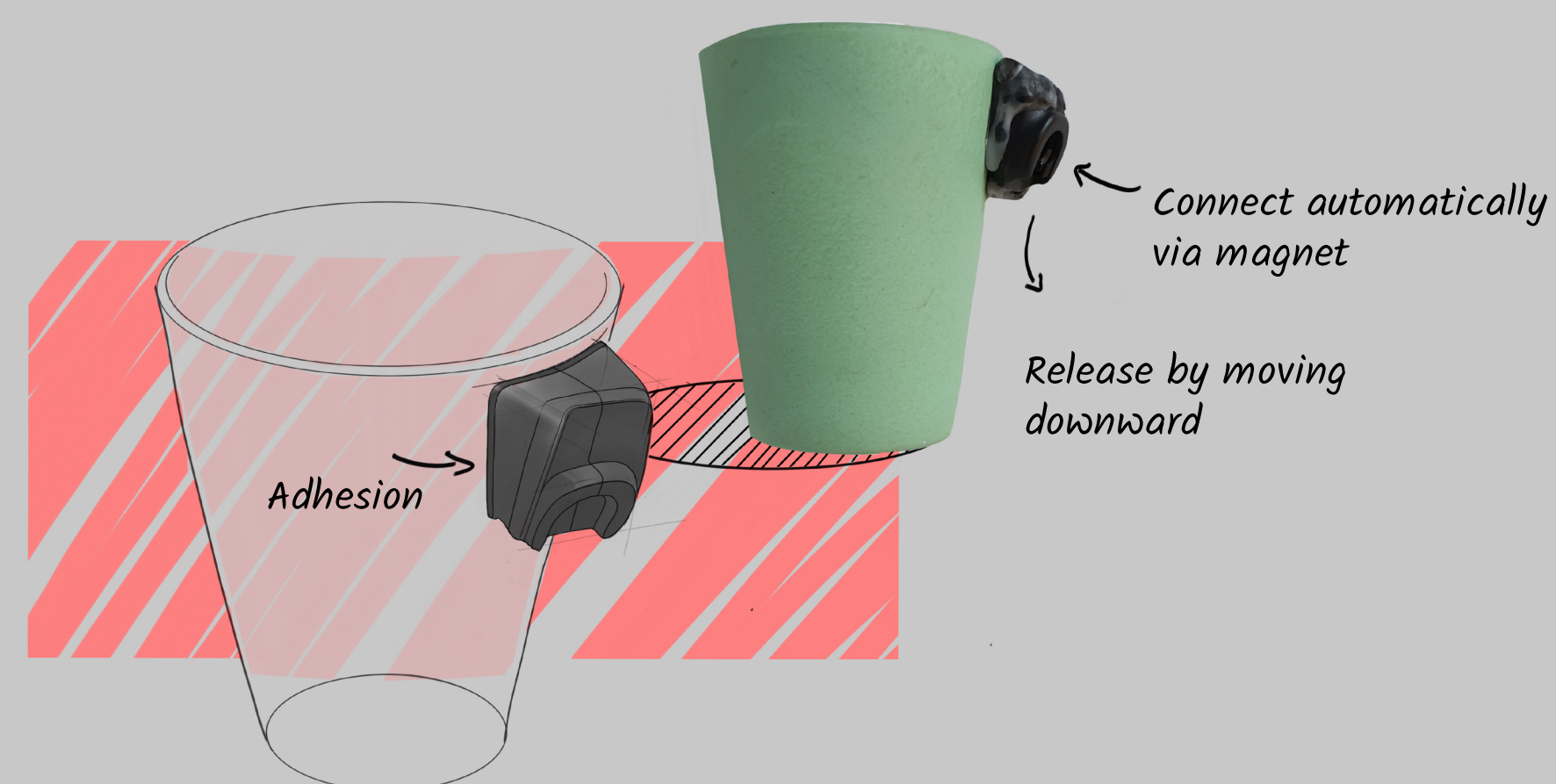


Muscle weakness

Amyotrophic lateral sclerosis causes motor neuron cells to die, which results in losing muscle strength progressively. Muscle weakness starts at the ends of the extremities and moves towards the centre of the body. Movements that require precision movements are the first to fail such as, lifting cups or holding utensils. Patients will become more and more dependent on the help of others, and assistive aids to perform simple tasks.

A magnet connection integrated into tableware

A strong magnet, in combination with a mechanical fit, establishes the connection safely. These blocks are integrated into tableware like cutlery or cups. By using the orthosis, the patient can connect to these objects with low effort and without using the strength of their fingers.



A TAILOR-MADE HAND ORTHOSIS FOR PATIENTS WITH ALS TO SUPPORT EATING AND DRINKING. INDEPENDENTLY.

"Using this hand orthosis contributes to my level of independence and to maintain my privacy because I can perform activities by myself."



Master thesis

A tailor-made hand orthosis for patients with ALS to support eating and drinking independently.

Graduate

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Integrated Product Design

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