

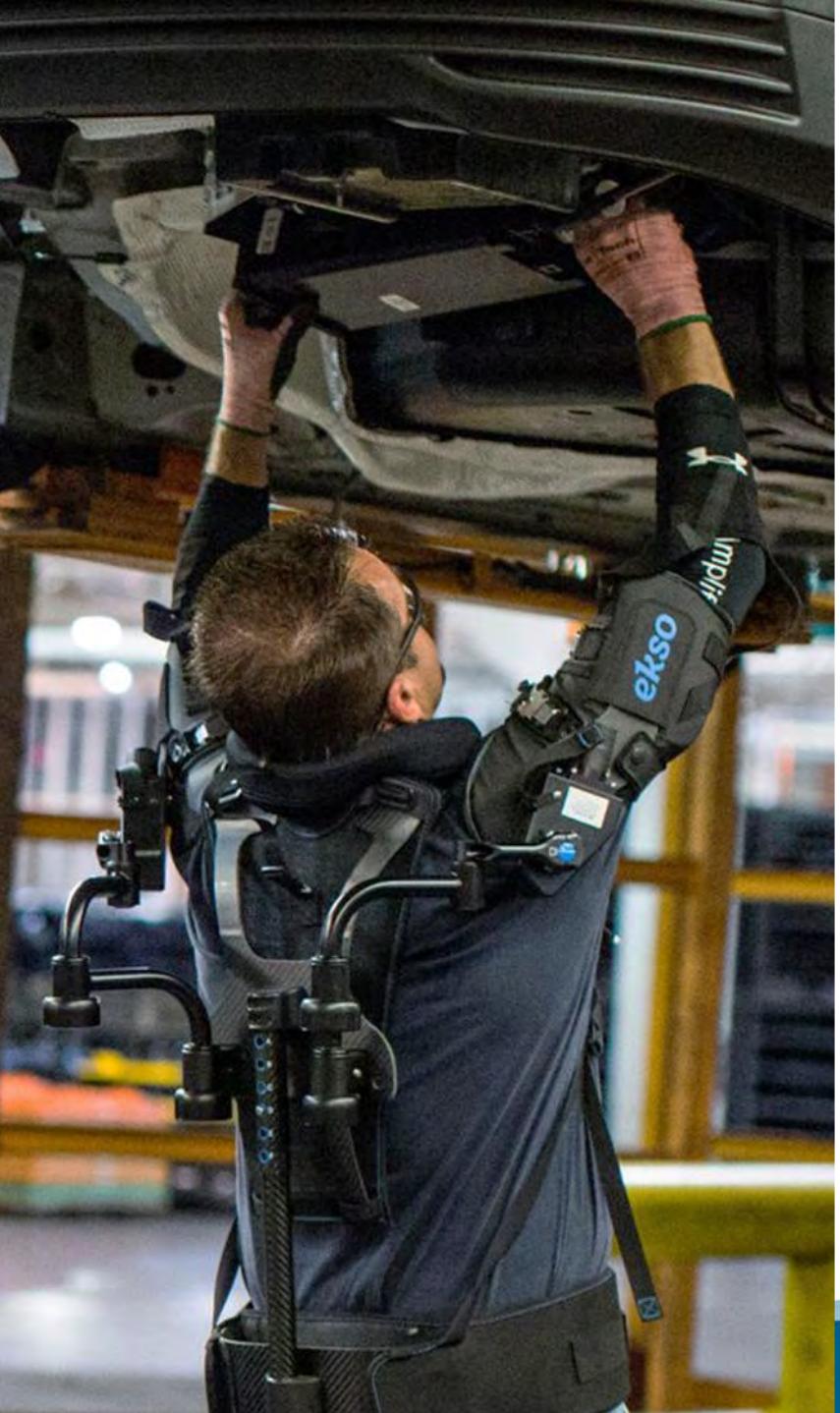


# PROJECT MARCH

## Exoskeleton: Stand up and walk again

18/06/2019







# The Exoskeleton





“Contribute to the mobility of people with a spinal cord injury.”

MARCH I



The Pilot



MARCH II



MARCH III



# Health Advantages

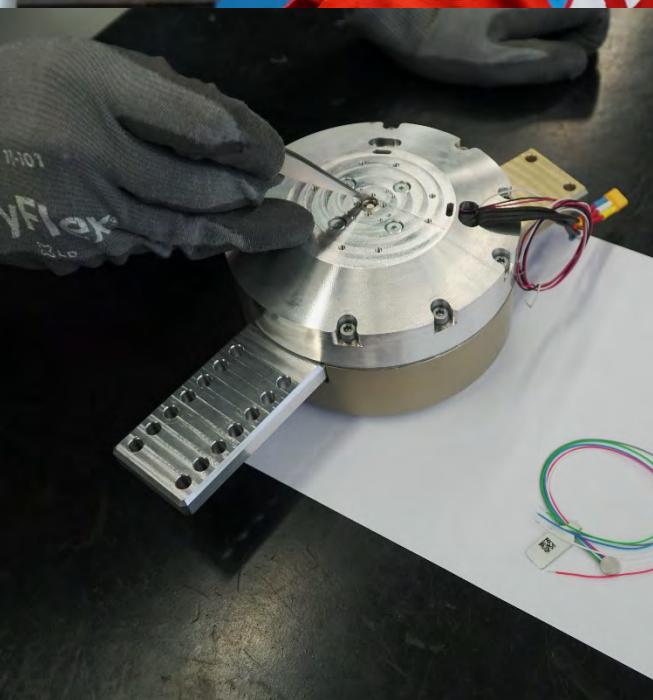


# Preview documentary “Sta op en Loop”

The emotional impact of standing up again

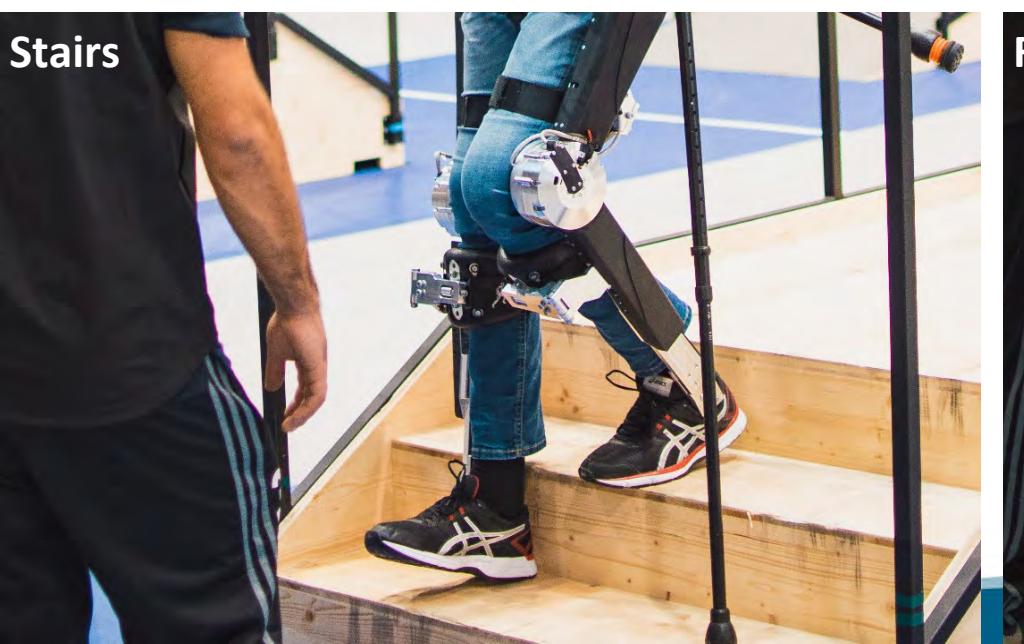


# Design Process





# The Cybathlon



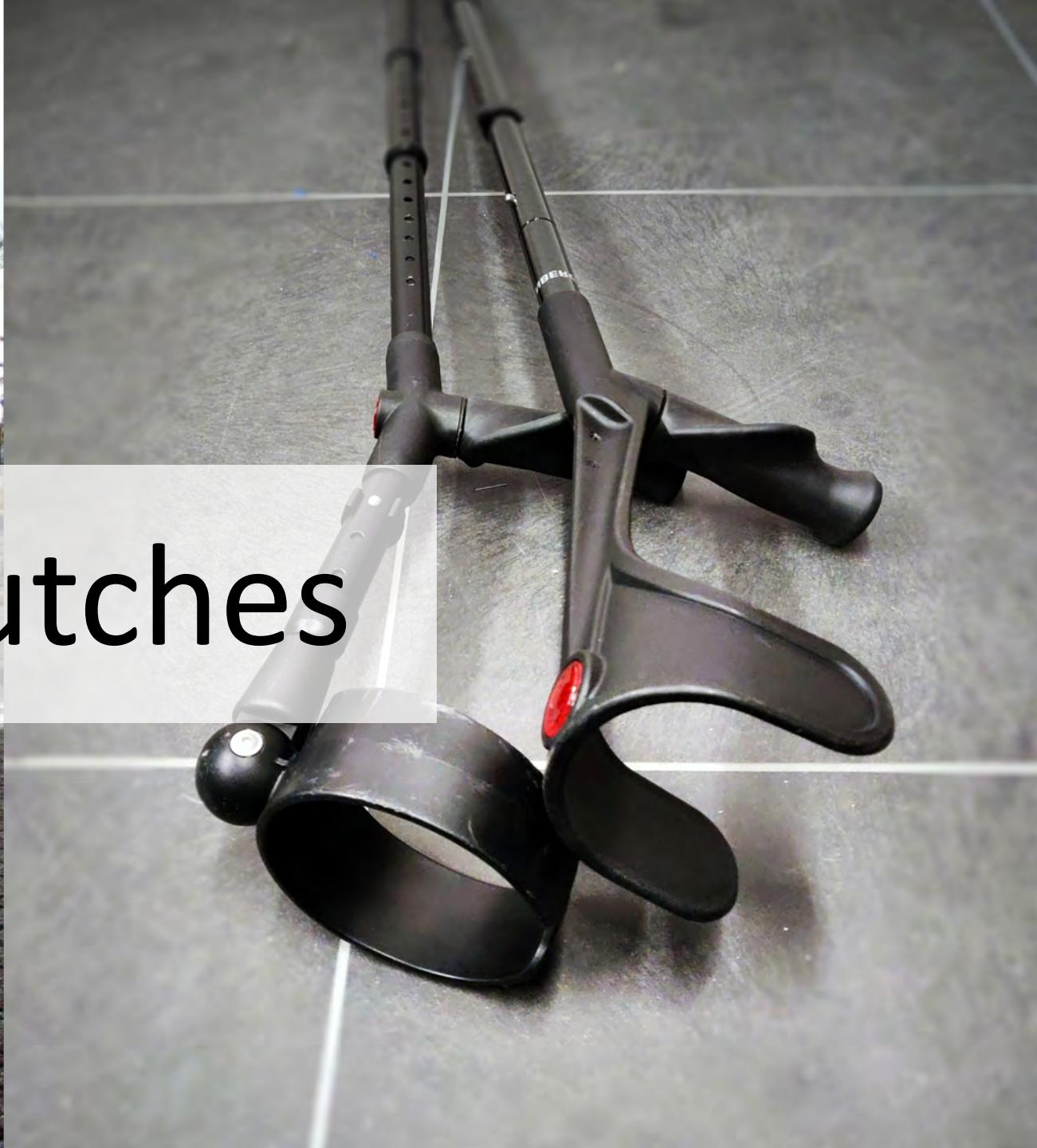


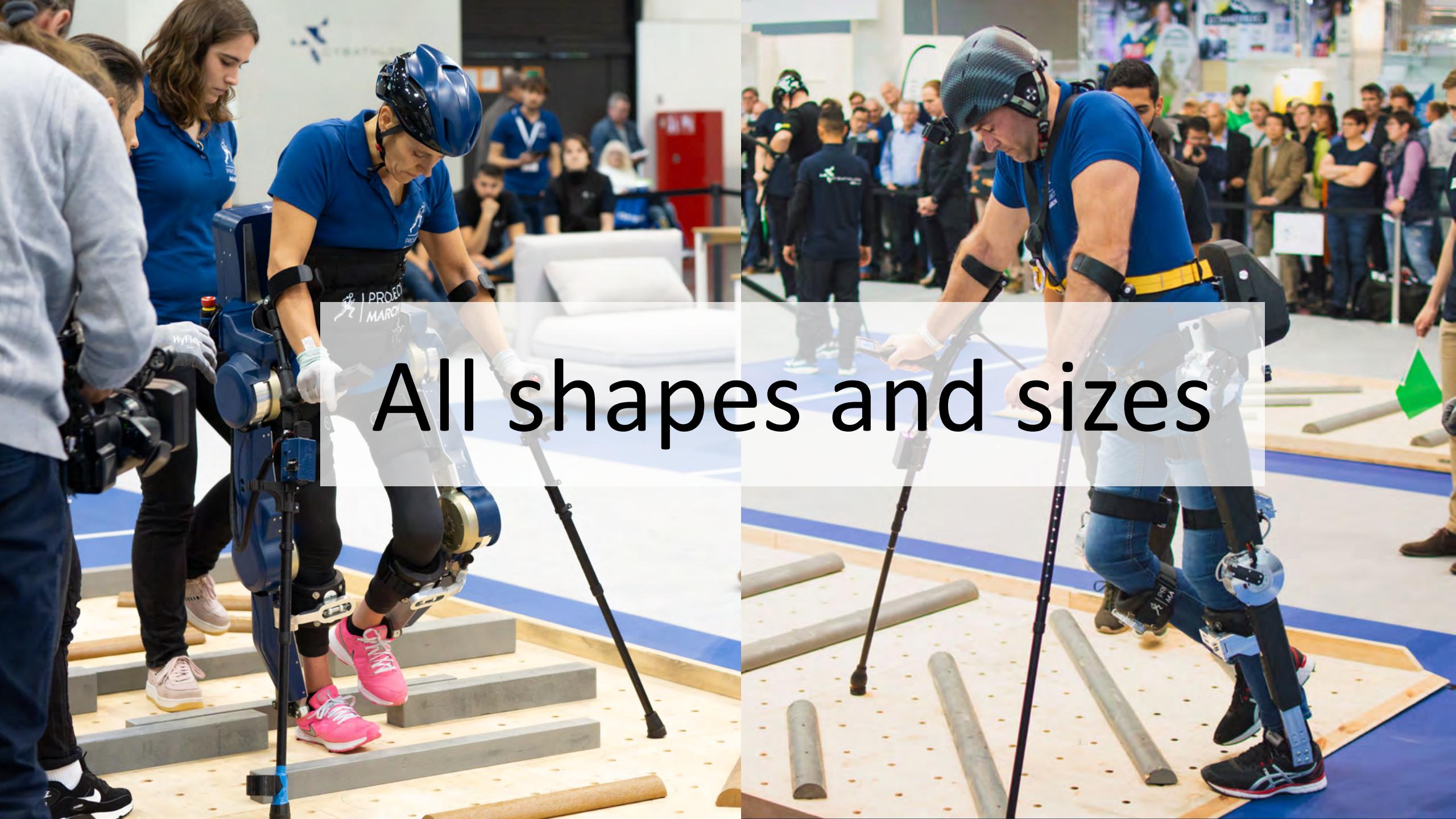
A photograph of a person's lower body and feet as they walk away from the camera on a fallen tree trunk in a forest. The person is wearing dark blue jeans and white sneakers. The forest floor is covered with fallen leaves, and the background is filled with green and yellow foliage.

Future vision



No crutches





# All shapes and sizes



React Dynamically





# Low-Profile



# Human Machine Interaction

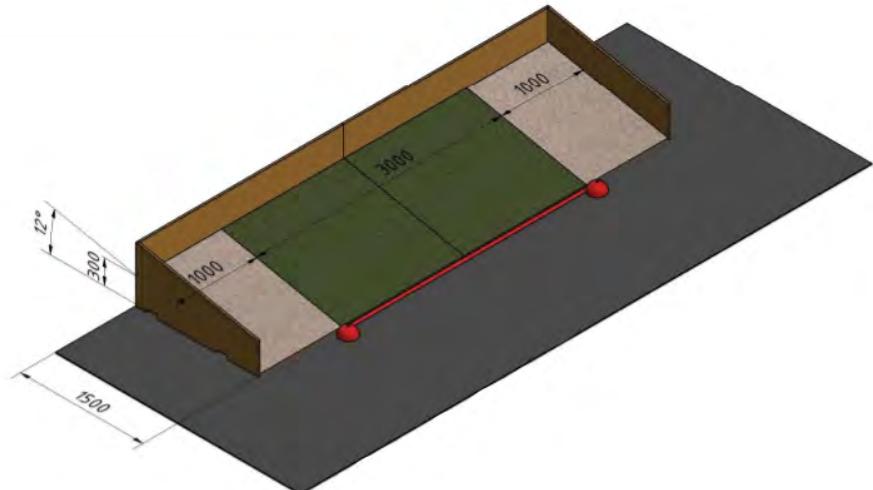
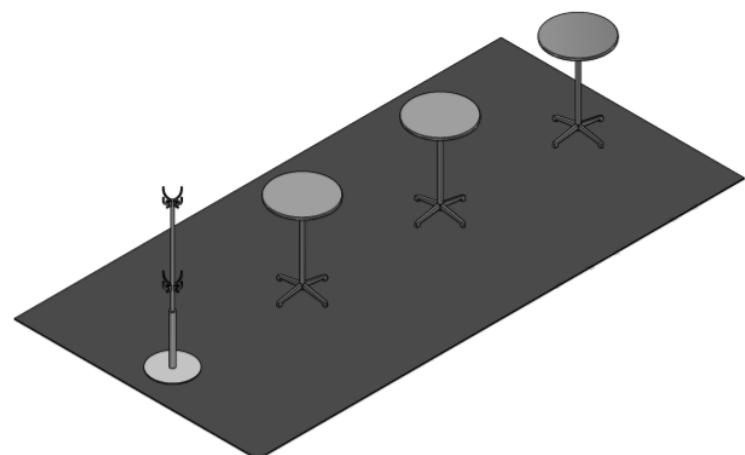
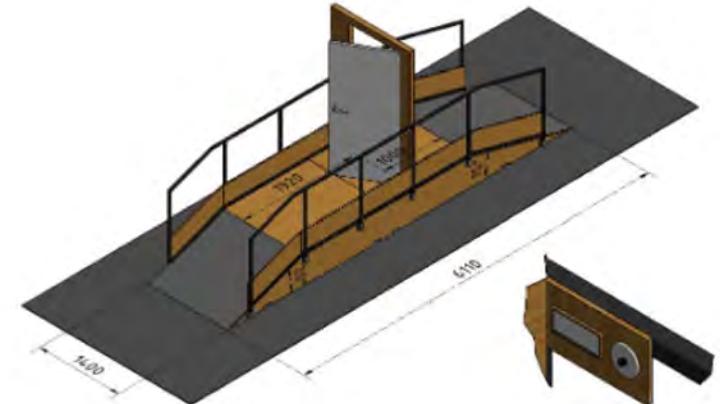
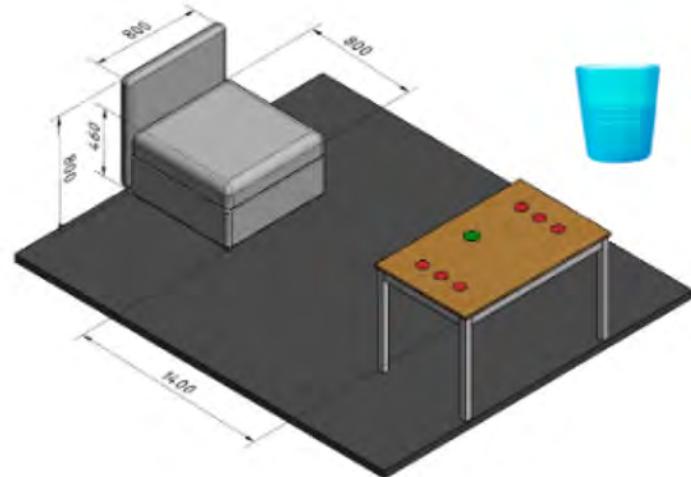
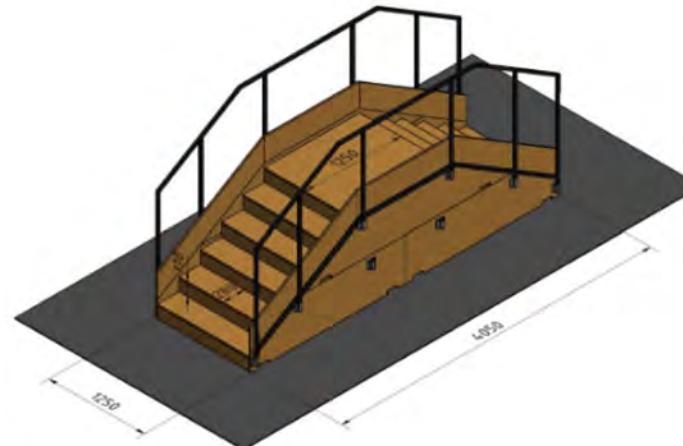


Bente

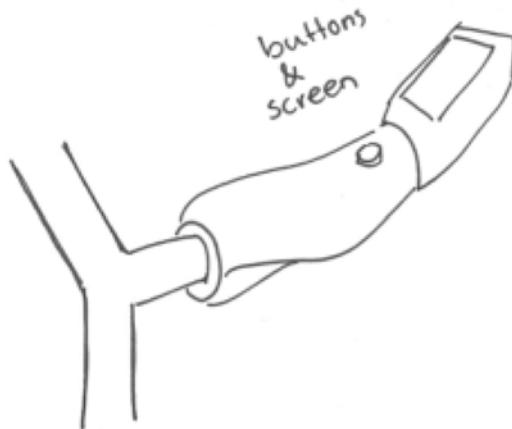


Karlijn

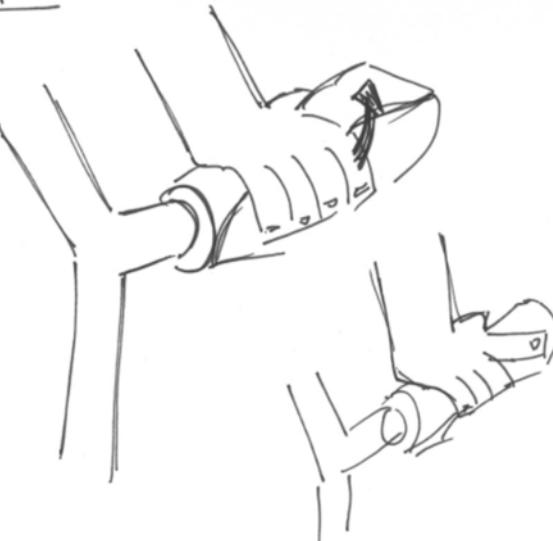
# Input Device



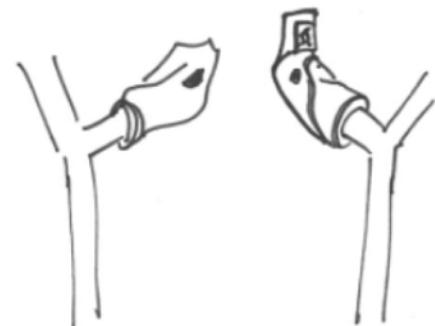
# Conceptualization



Concept 5



2 crutches



Myo armband



Fist



Wave in



Wave out



Open

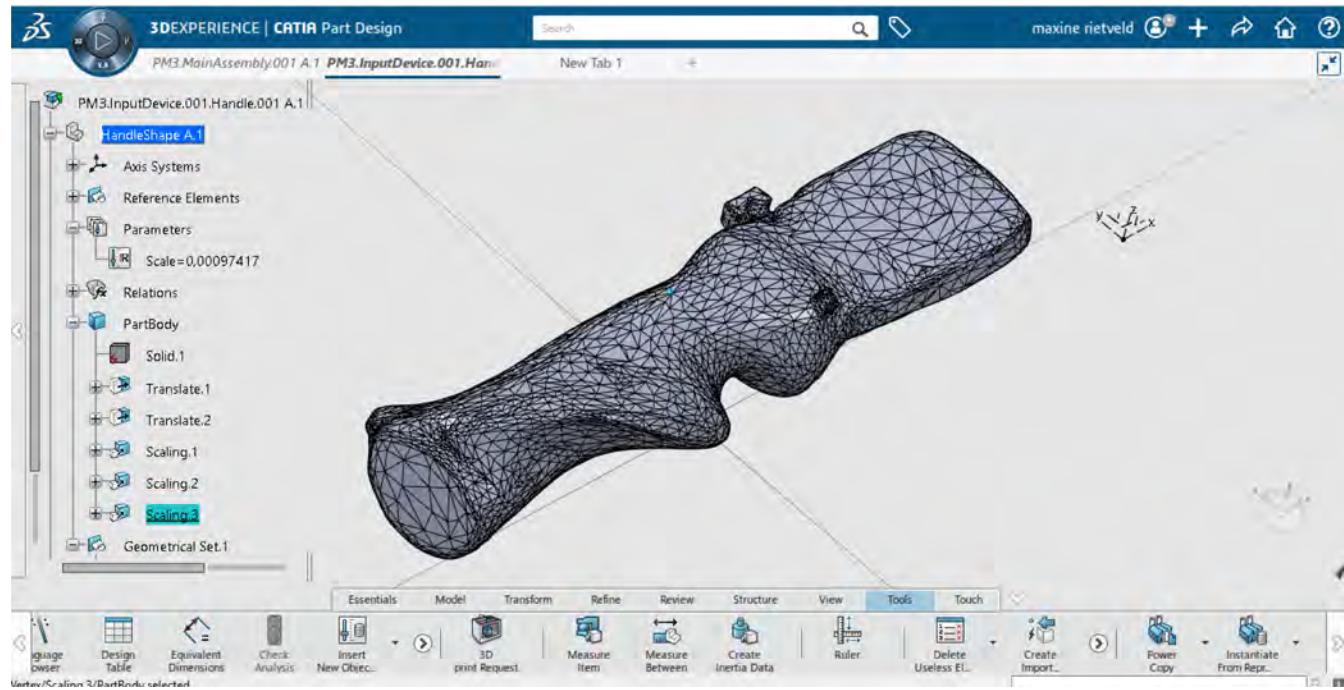


Pinch

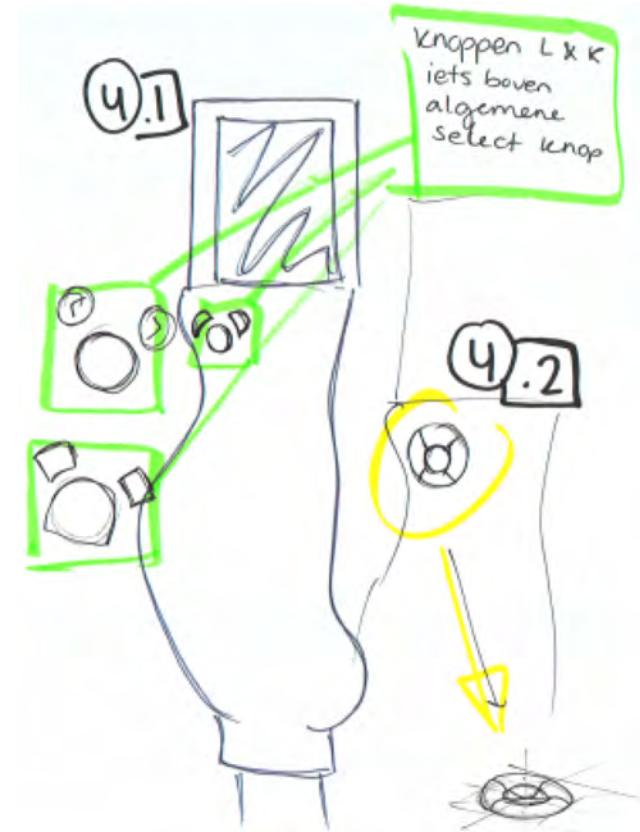
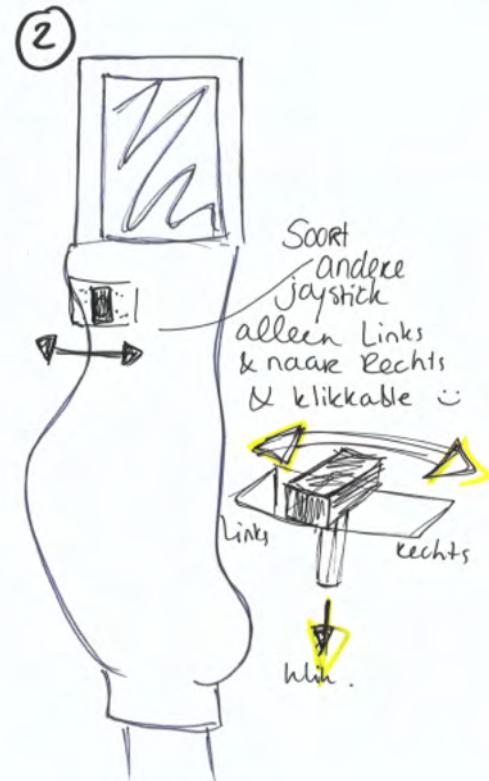
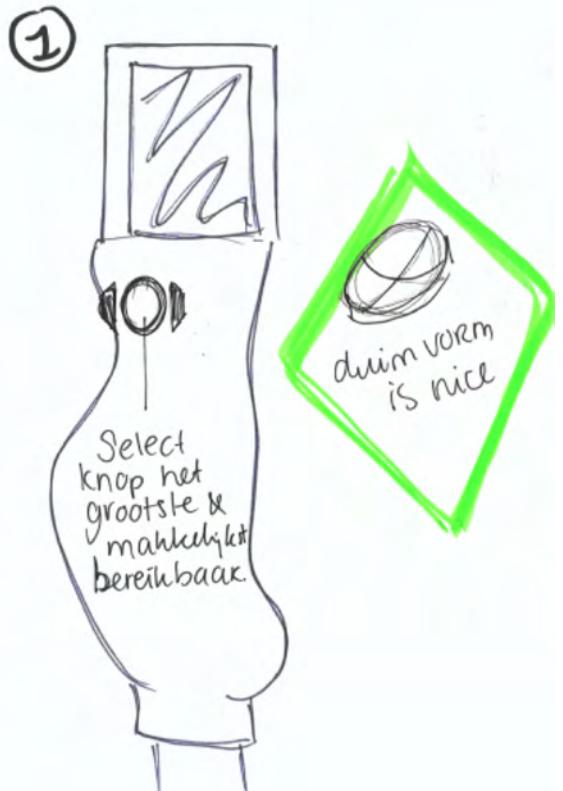


# Shape Crutch Handle

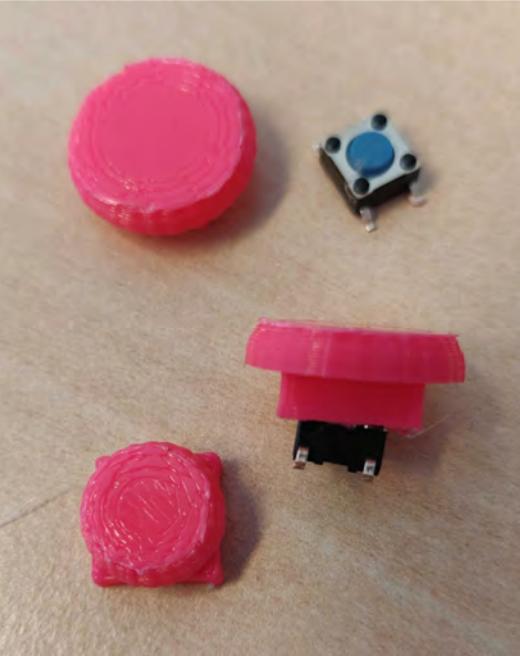


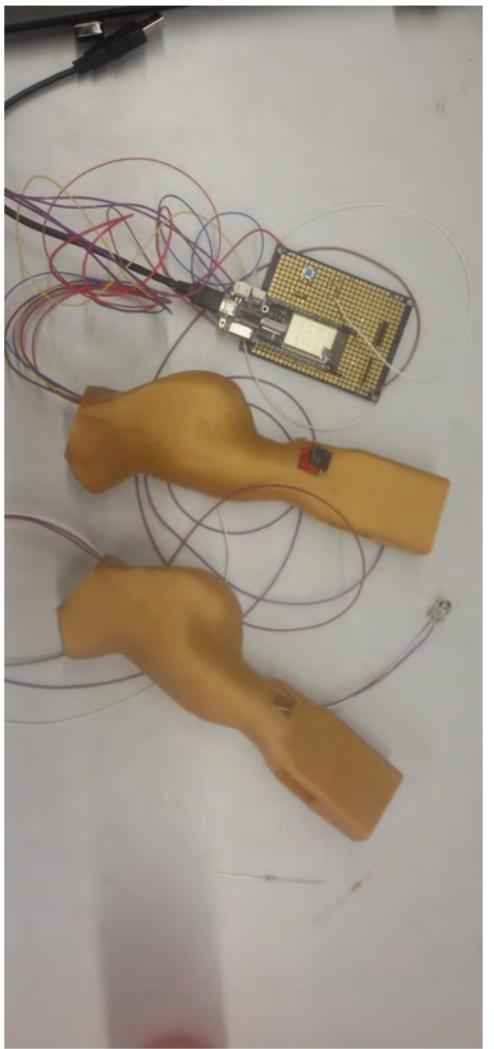


# Embodiment

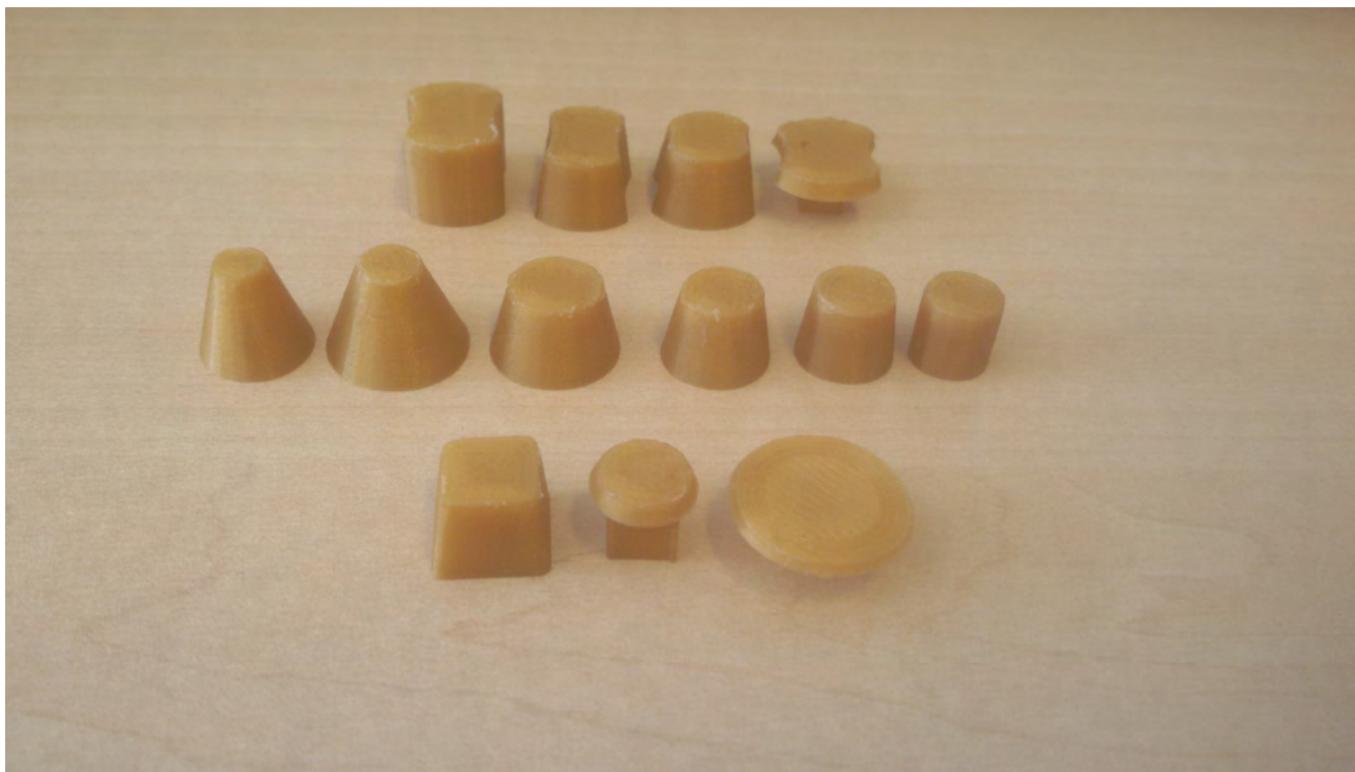


# Testing

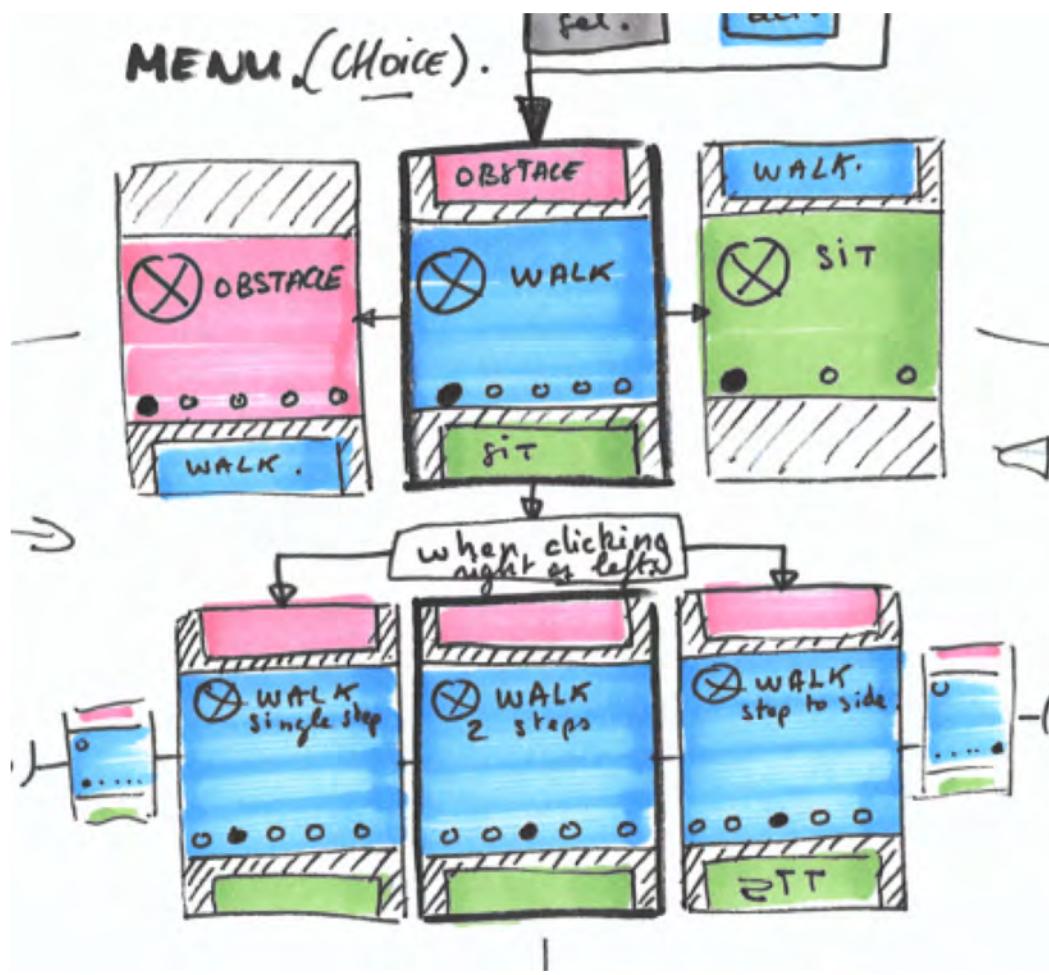




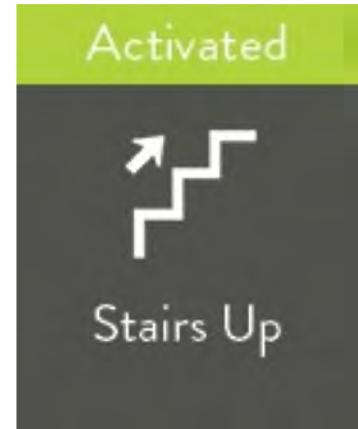
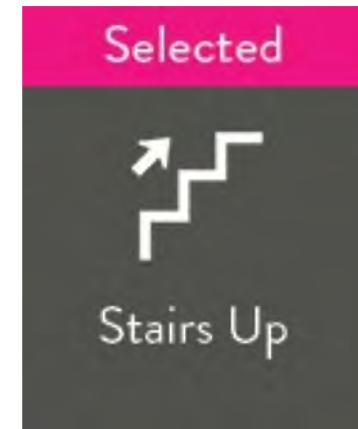
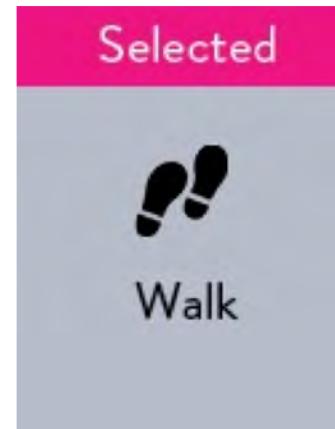
# Detailed Design



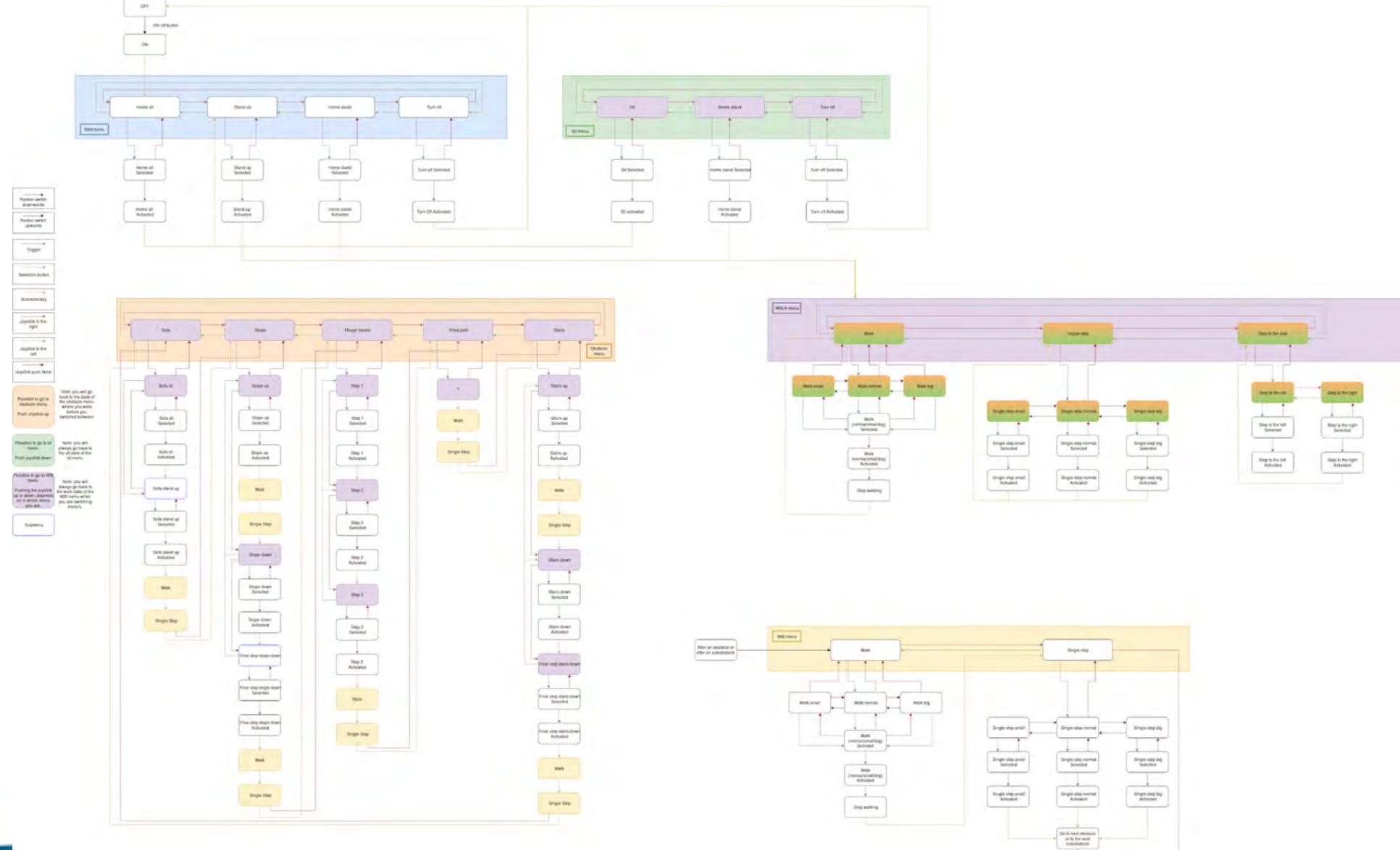
# Graphical user interface



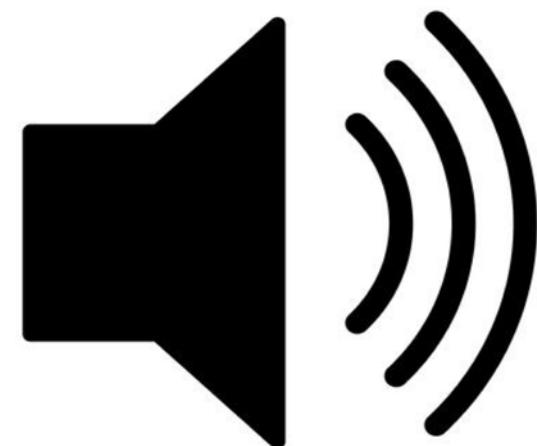
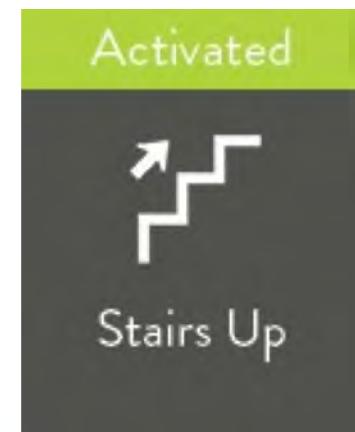
# Graphical user interface



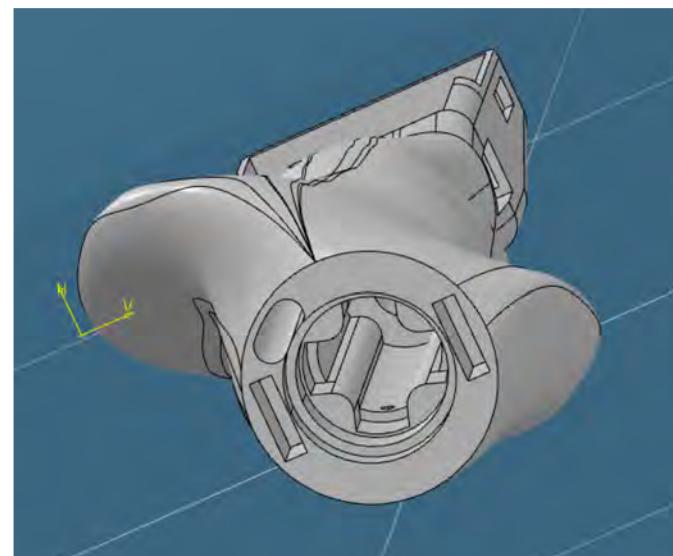
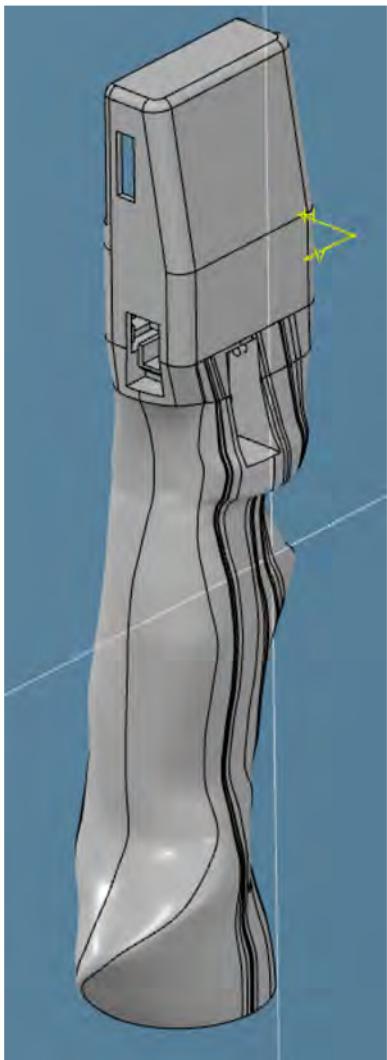
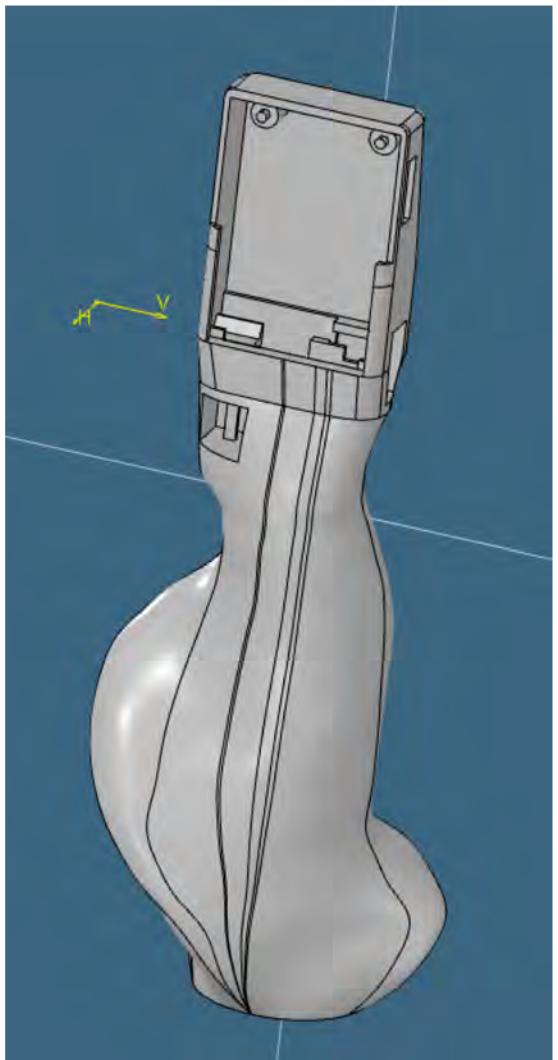
# Selection scheme



# Feedback



# Assembly



## DIAMOND SPONSORS



## PLATINUM SPONSORS



Sint Maartenskliniek



## GOLD SPONSORS



## SILVER SPONSORS



## BRONZE SPONSORS



## FRIENDS



PROJECT MARCH