

# PhiCube

Empowering upper body.  
Enhancing developmental skills  
Transforming Outcomes.



**Product  
Catalogue**  
2025

[www.rehabiliatechnologies.com](http://www.rehabiliatechnologies.com)

# What is PhiCube

Meet the core of our Educational all-in-one platform

A gamified, **CE-certified training** device designed for non-clinical use. Offers tunable resistance, engaging **upper-body** interaction, and intuitive performance dashboards ideal for motor and cognitive skill development and education in safe, controlled environments. PhiCube can assist in **Developmental Disorders** such as **SDC, DLD, ADHD , SPD, FXS - Rett Syndrome- Down Syndrome - Williams Syndrome** and **Autistic Spectrum Disorders**.



WE THINK OF SMART REHABILITATION AS A PLATFORM.



## Built With Experts. Trusted By Patients.

Every aspect of our platform is **co-designed with physiotherapists, clinicians, and patients** to ensure it's clinically sound, user-friendly, and outcome-focused.

# What We Offer

Here's the curated selection of product and services we've prepared to help you enhance your clinical practice.

- 01

**PHICUBE**

The heart of our system, a powerful robotic-based training that connects patients to interactive, AI-driven rehabilitation sessions.
- 02

**ACCESSORIES**

Specialized, Plug & Play handles that adapt to different motor functions and recovery goals.
- 03

**REHABILIA GAME PACKAGES**

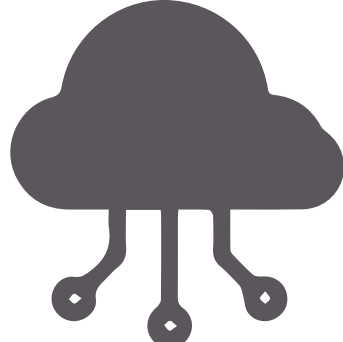
A diverse library including engaging motor, cognitive, vision, and attention training games designed to motivate and support patient progress, alongside standardized assessment tests developed to evaluate the patient improvements and lastly personalized games.
- 04

**REHABILIA VISION SYSTEM**

A camera-based motion tracking solution that integrates with our games to involve patient's full body in an immersive training and expands the way patients can interact with games.
- 05

**PHIL**

PhiCube morphs into PHIL, a social companion that keeps full motor play while adding expressive, cartoon-face social training. It senses emotion in real time and adapts multisensory interventions to the session's goals.
- 06

**DATA ASSETS & AI**

Data is a core asset on a synchronized hybrid local/cloud stack with privacy and security by design. Edge-first ML personalizes therapy in real time with a human in the loop; analytics empower users and aggregated insights drive compliant improvement.

# Who are We

Our story

## It all started with a dream...

✨”to harness cutting-edge technology to help children with disabilities” ✨

In May 2023, this dream became reality with the birth of Rehabilia Technologies, **a spin-off from Italy's National Research Council (CNR).**

Ours is the story of researchers who took the bold step of transforming years of scientific excellence into real solutions that improve people's lives. Today, we bring Italian innovation to neuromotor rehabilitation, combining scientific passion with social impact.

# Our Vision

A world where cutting-edge habilitation is universally available, unleashing human potential beyond physical limitations.



**Giovanni Tauro**  
Chief Product Officer  
Co-Founder

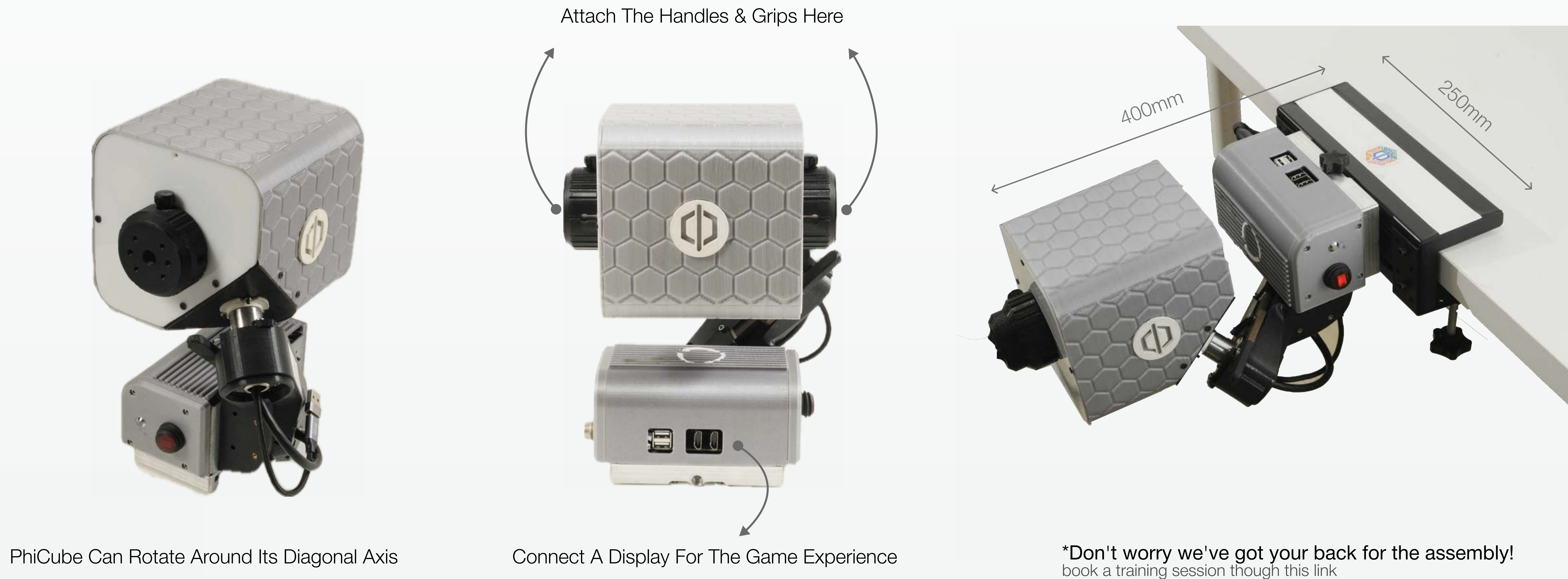
**Matteo Malosio**  
Chief Executive Officer  
Co-Founder

**Matteo Lavit Nicora**  
Chief Technology Officer  
Co-Founder

# 01 PhiCube

| The Essential Core of Interactive Rehabilitation

PhiCube is the core device that supports **Accessories**, **Game Packages** and **Rehabilia Vision system**, enabling customized therapy for both children and adults.



PhiCube Can Rotate Around Its Diagonal Axis

Connect A Display For The Game Experience

\*Don't worry we've got your back for the assembly!  
book a training session though this [link](#)



## Modular Design

The device features two Plug&Play interfaces compatible with the RehaGrips Collection, allowing the training of a wide set of upper-limb movements.



## Bilateral Training

Boost neuroplasticity through bilateral exercises, train motor coordination or work on both limbs at the time depending on the specific needs of your patients.



## Easy to use

A stable, compact, and adaptable solution, designed to promote affordance and intuitivity of use. It fits in a trolley so that you can store it or bring it with you wherever you want.



## Multi-User Treatment

Providing motor, cognitive and social training for people with developmental disorders. Durable & Safe – Built with high-quality materials.



## Tunable Behavior

Tune the provided assistance/resistance to your needs: **from completely active to completely passive with all the steps in between** that you can imagine. A smart control algorithm also allows you to introduce a **“bilateral assistance”** component where one limb can help the other in performing the required movement.

# 02 Accessories

## | Handles & Grips

We provide a variety of handles designed for specific motor functions. Each handle is tailored for habilitation training, enhancing strength, coordination, and mobility. With PhiCube movement becomes the activator for learning.

### Available Grip families:



**Globo Grip**

a. Medium sized  
b. small sized

**Cycle Grips**

SKU: [SKU Code]

**FlexiLever Grips**

SKU: [SKU Code]

**Prono Grip**

SKU: [SKU Code]

**Wheel Grip**

SKU: [SKU Code]

**Pinch Grips**

a. Simple  
b. Ergonomic

We offer a versatile set of Plug&Play handles designed to **enhance upper-limb habilitation** through natural and functional movement patterns. Together with PhiCube, these handles provide **customized therapy experiences**, ensuring adaptability for various patient needs and educational programs.



## Globo Grip

A spherical handle offered in two different sizes allowing full-range hand movement, dexterity improvement and functional exercises (e.g., ball handling, door knob, light bulb).



- Mostly Trained Movements:
1. Forearm Pronation/Supination
  2. Wrist Flexion/Extension



- Encourages multi-directional hand motion
- Engages fine motor skills and coordination
- Soft-touch surface for enhanced comfort



## Wheel Grip

A dynamic handle designed for rotational mainly elbow and shoulder exercises, improving dexterity and control.



- Mostly Trained Movements:
1. Forearm Pronation/Supination
  2. Shoulder Intra/Extra Rotation



Lateral movement



Central movement



Config#1

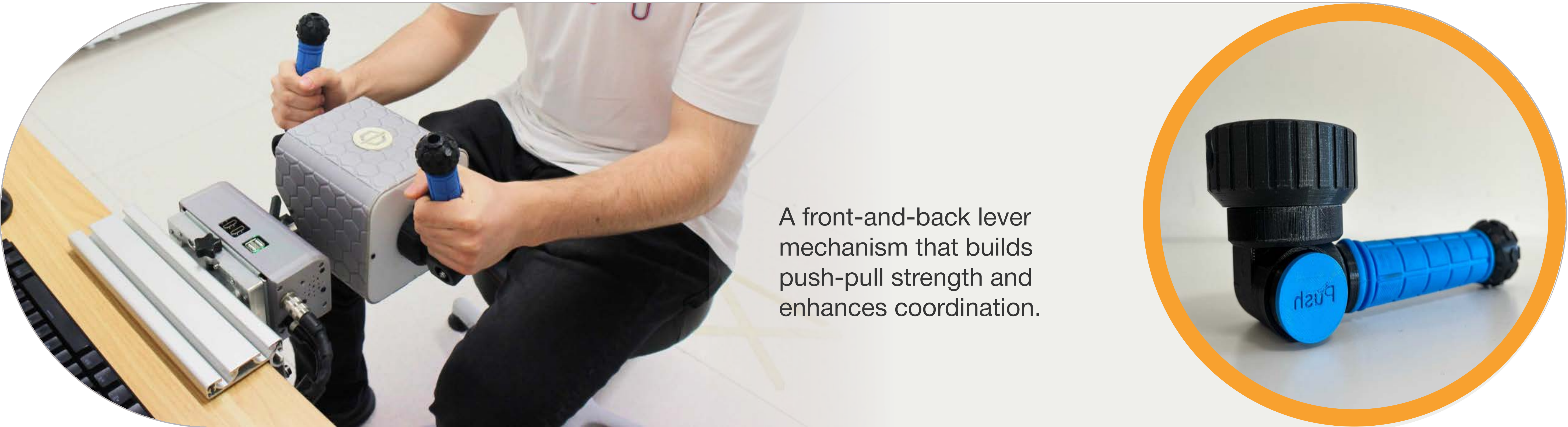


Config#2



- Enhances wrist and forearm strength.
- Ideal for rotational neuromotor therapy.
- Ergonomic design for comfortable grip.

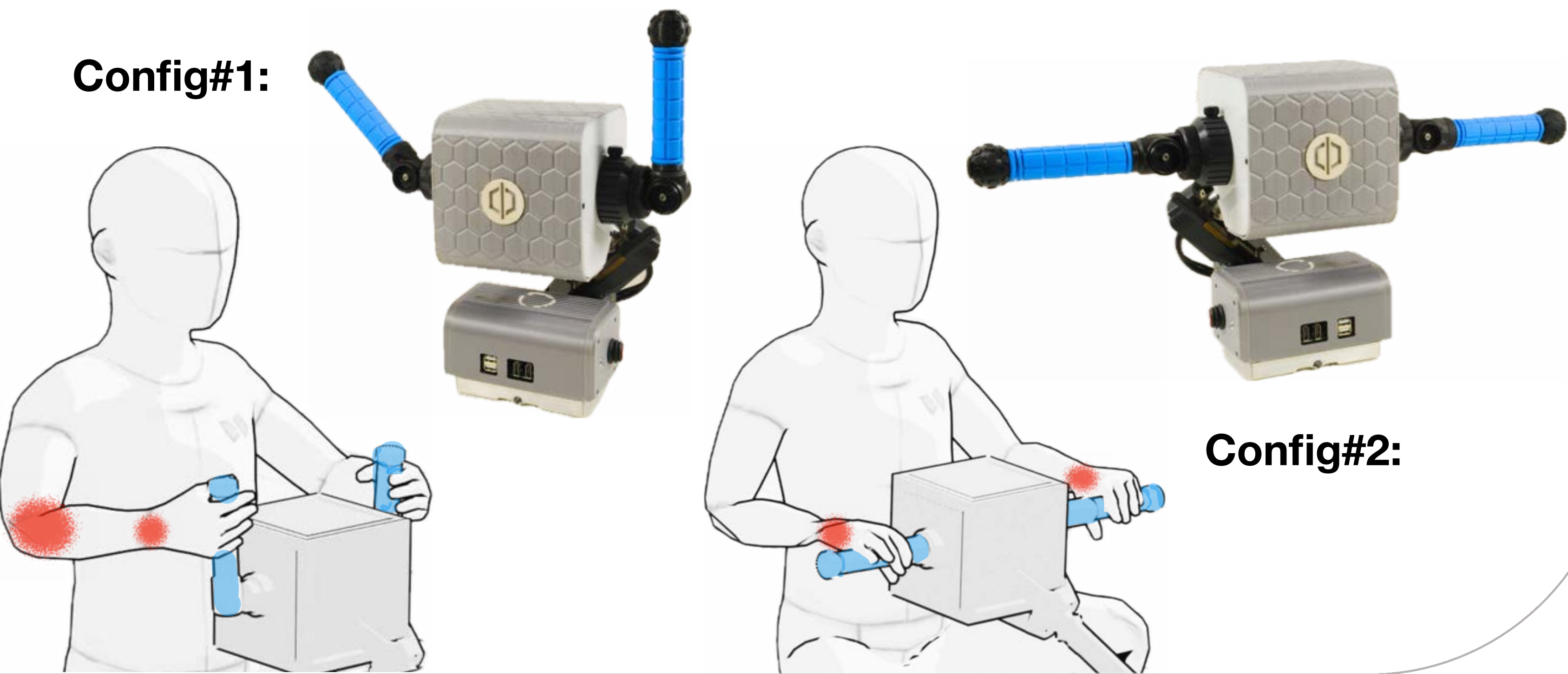
# FlexiLever



A front-and-back lever mechanism that builds push-pull strength and enhances coordination.

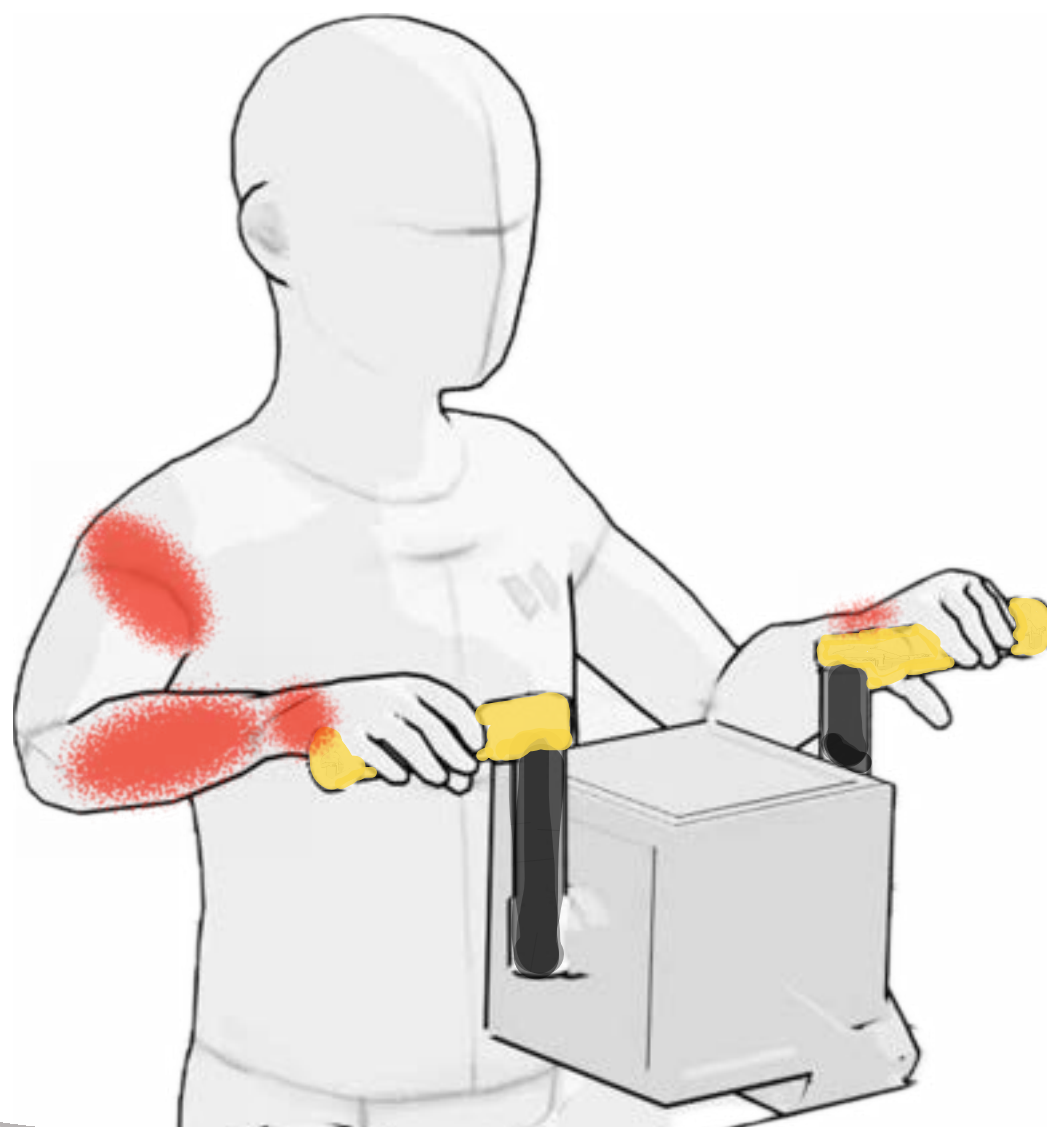
- Promotes controlled force application
- Helps restore muscle coordination
- Sturdy design for safe training

Mostly Trained Movements:  
1. Wrist Flexion/Extension  
2. Elbow Flexion/Extension



A pedal-like handle that mimics cycling motion, enhancing limb coordination and strength.

- Simulates cycling movement for active therapy
- Strengthens upper or lower limbs
- Adjustable resistance for personalized training



Mostly Trained Movements:  
1. Wrist Flexion/Extension  
2. Forearm Pronation/Supination  
3. Shoulder Intra/Extra Rotation



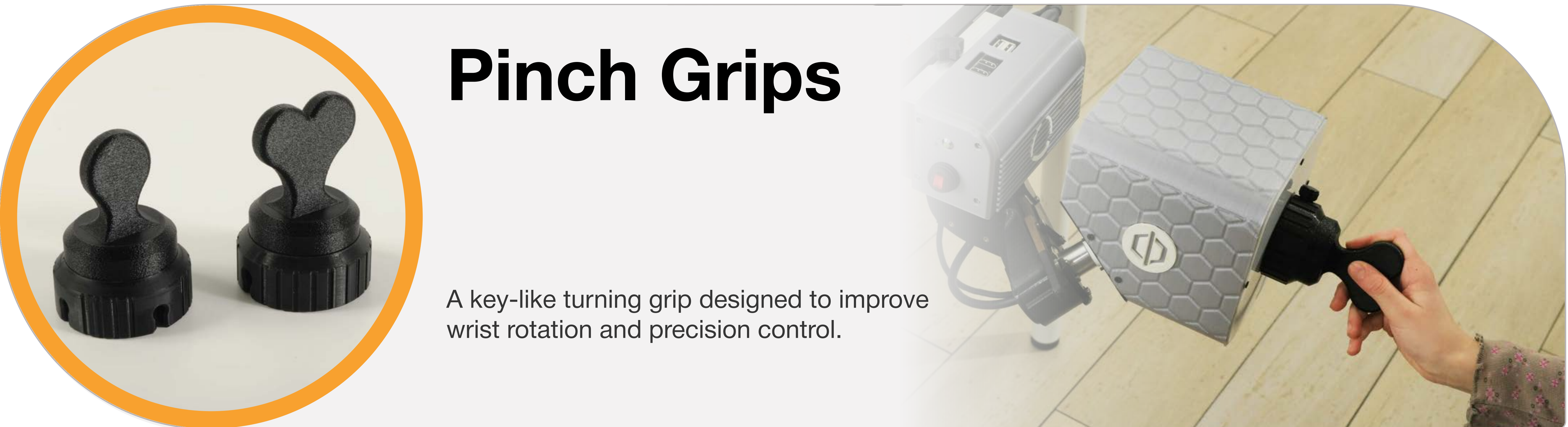
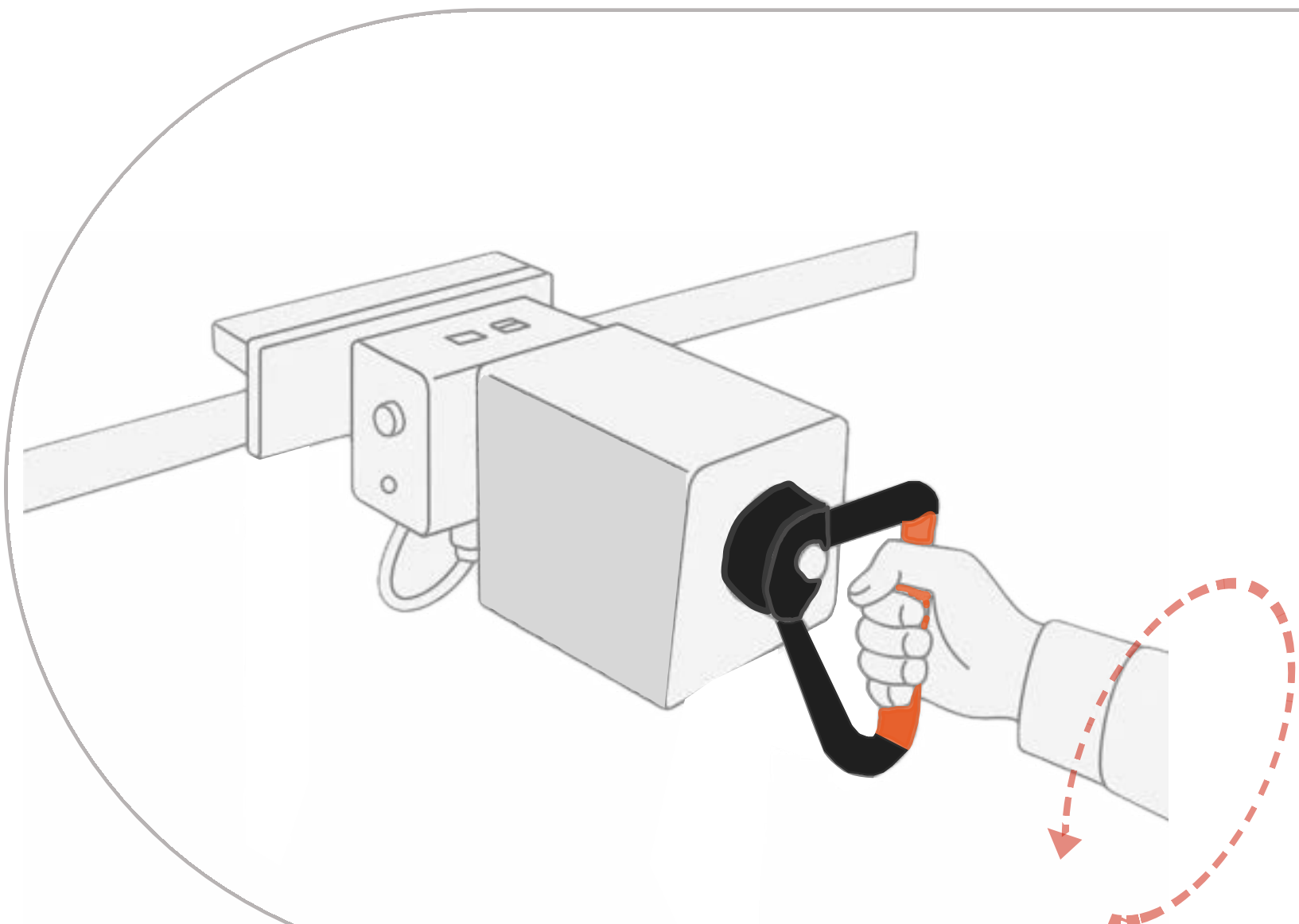
\*The handles can be mixed together to provide customized habilitation program.

# Prono Grip



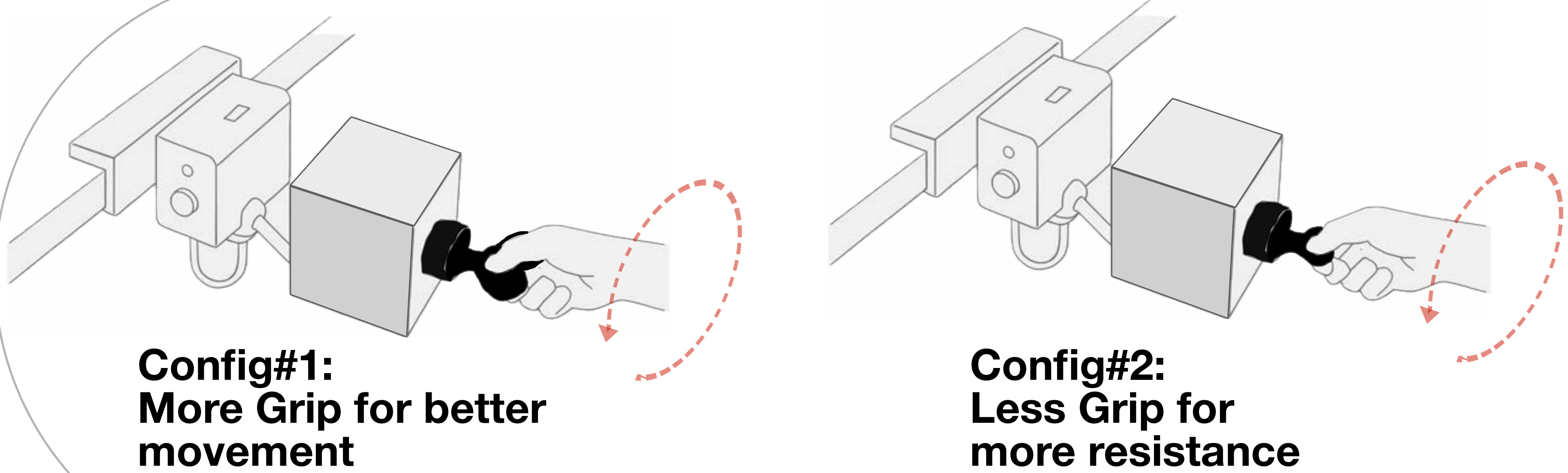
A soft cylindrical handle designed to promote full-hand engagement, specifically targeting pronation and supination movements of the upper limb for improved strength and control.

- Trains monolateral (single-arm) pronation and supination movements
- Requires full-hand grip to activate and strengthen forearm muscles
- Soft, ergonomic surface for enhanced grip comfort and durability



# Pinch Grips

A key-like turning grip designed to improve wrist rotation and precision control.



- Strengthens wrist and finger movements
- Simulates real-world actions like turning a key
- Adjustable resistance for progressive training

Do you think something is missing from our collection? We believe in the importance of co-design: new Grips can be designed by our team based on your specific needs to provide maximum personalization. Book a meeting with us through [this link](#).

# 03 ReHabilia Game Packages AND more..

| Interactive therapy experiences designed for developmental disorders

**Game Categories:**

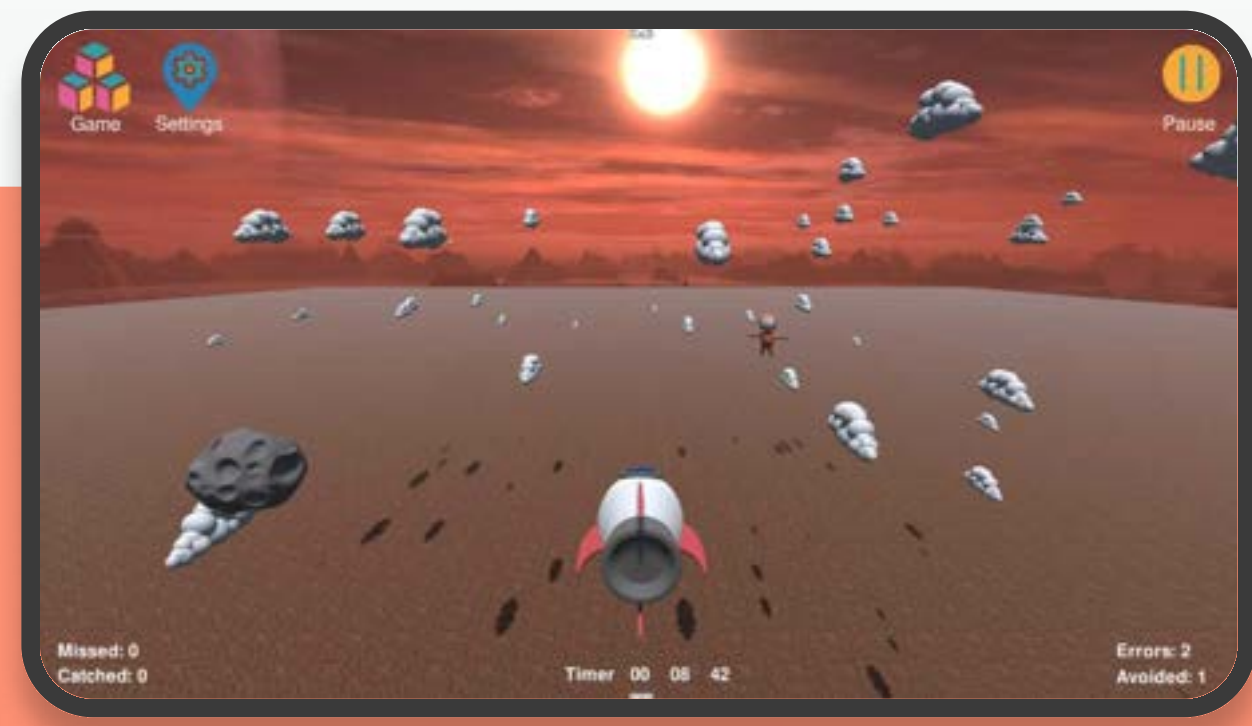
- 1. Motor Habilitation Games
- 2. Cognitive Training Games
- 3. Assessment & Progress Tracking Tests
- 4. Personalized Games (Custom Development)

All handles are compatible with all games. Depending on the chosen set of handles, the game automatically maps the user movement to the correct game mechanics.

**HERE IS OUR GAME LIBRARY**

That we keep expanding...

### Shuttle



**Rescue the lost ASTRONAUTS floating in the MARTIAN ATMOSPHERE!**

Main Skill To Train:  
Motor, Cognitive Skills, Visual Attention / Neglect

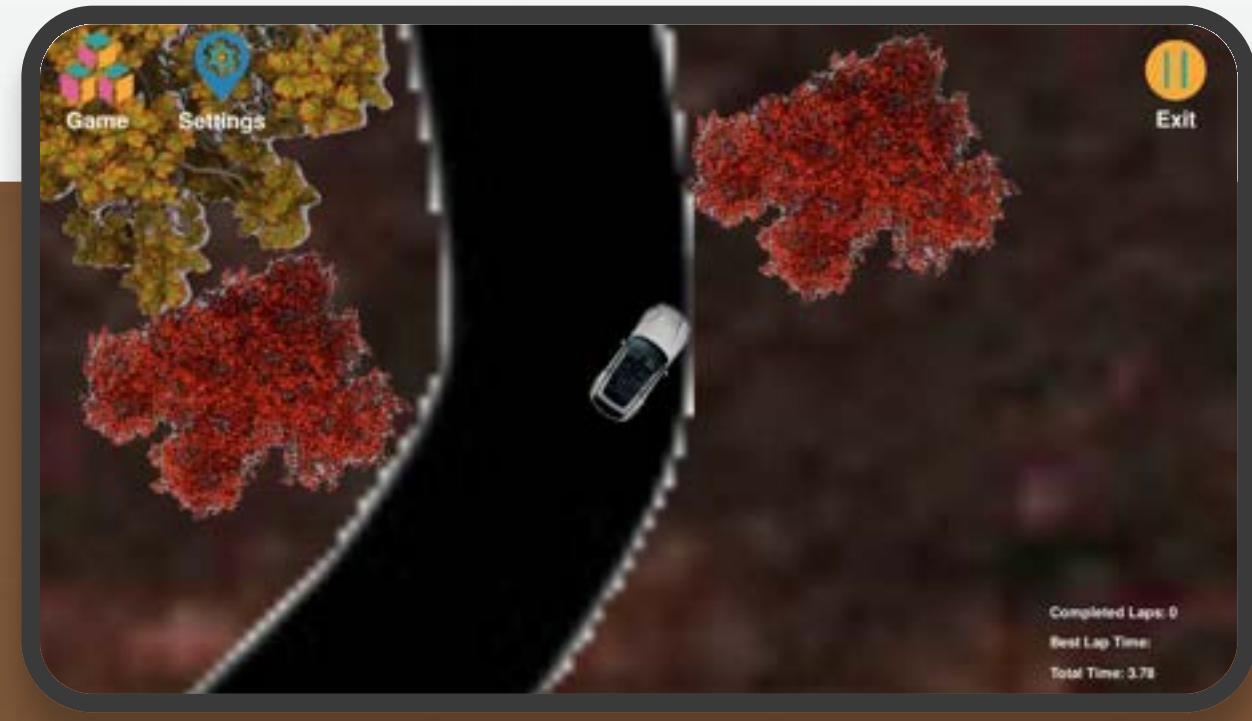
### Submarine



**Collect the NEMO swimming at the bottom of the SEA!**

Main Skill To Train:  
Motor, Cognitive Skills, Visual Attention / Neglect

### Racing



**Drive along to track and complete a lap in the shortest time.**

Main Skill To Train:  
Motor, Coordination Skills, Spatial Perception

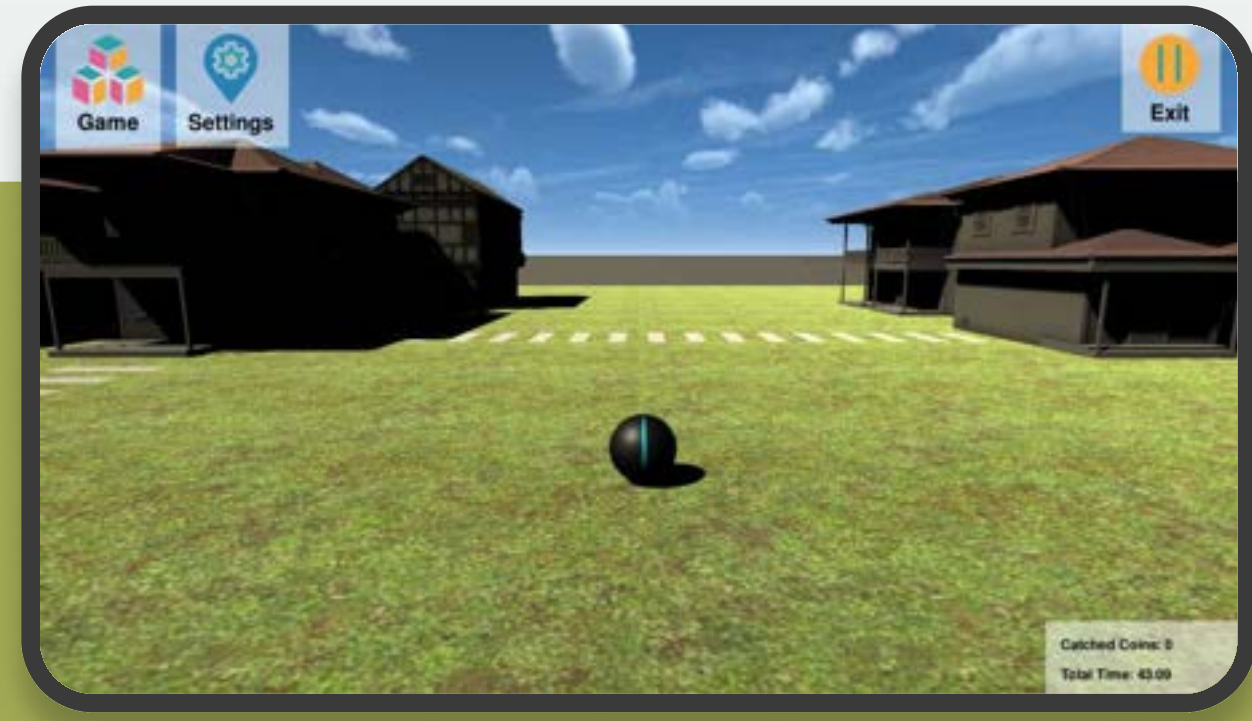
### Rowing



**Row along the river try to complete a lap in the shortest time!**

Main Skill To Train:  
Bilateral Motor Coordination, Muscle Strength, Cognitive Skills.

### Explorer



**Roll through the city, chase the coins, master the maze!**

Main Skill To Train:  
Motor Coordination, Spatial Navigation Skills, Visual Scanning And Attentional Shifting

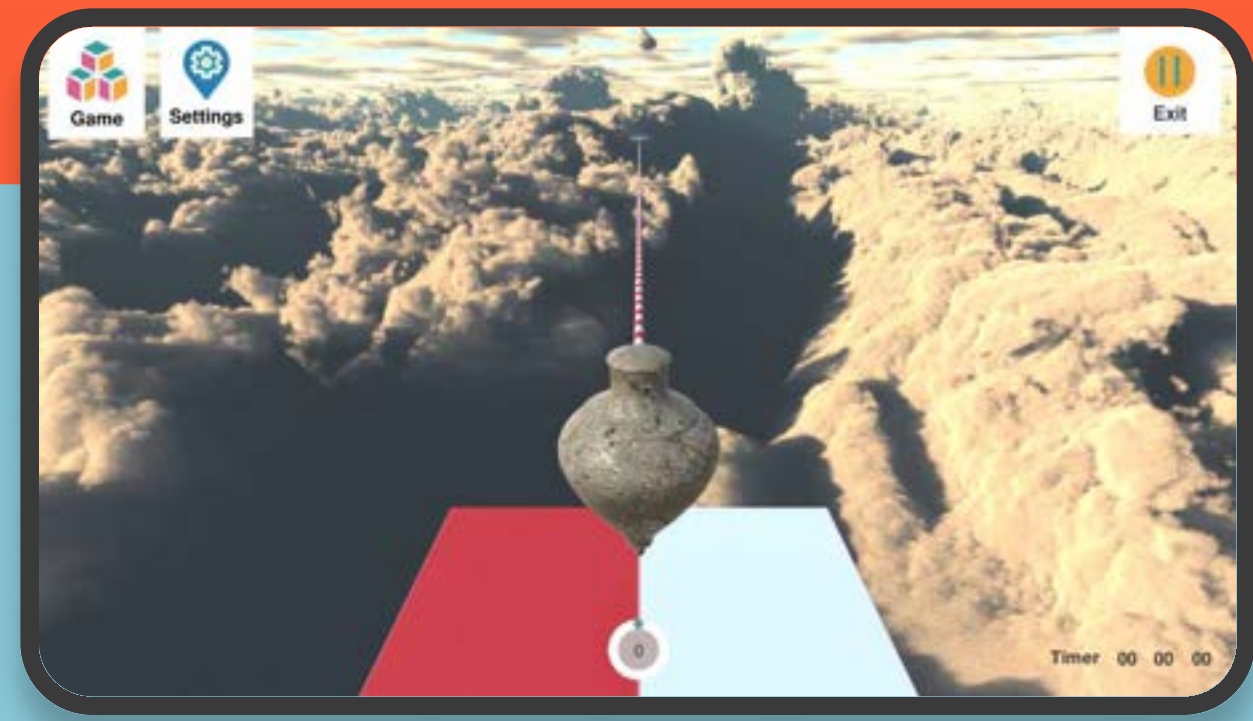
### Tractor



**Collect the hay, dodge the hens, and race through the countryside!**

Main Skill To Train:  
Motor, Cognitive Skills, Visual Attention / Neglect

### Equilibrist



**Push the spinning top along the rope & keep a certain level of equilibrium & pay attention not to fall!**

Main Skill To Train:  
Bilateral Motor Skills, Upper Limb Strength Control, Cognitive Skills

### Boat



**Collect the TRASH that has been left around while avoiding the BUOYS.**

Main Skill To Train:  
Motor, Cognitive Skills, Visual Attention / Neglect

### Newton



**Help Newton catch the apples—but watch out for falling rocks!**

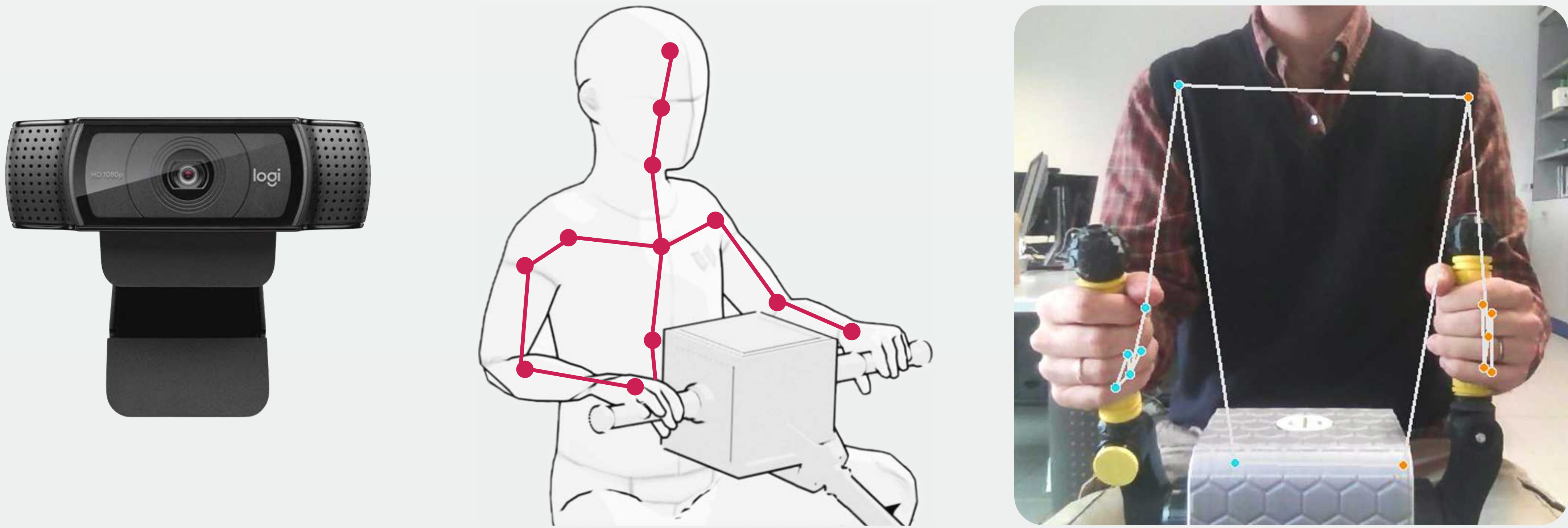
Main Skill To Train:  
Motor Skills (Hand-Eye Coordination And Reaction Time), Visual Tracking, Visual Attention / Neglect. Fast Thinking And Response Inhibition

Each game offers flexible skill training that adapts to the selected settings. Depending on the preferences set by the therapist or caregiver, every game can target a wide range of motor, cognitive, and visual abilities. (Don't worry, we'll guide you through every setting during the training session!)

# 04 ReHabilia Vision System (Optional Add-On)

| Efficient therapy with vision-based tracking

A camera-based system that tracks movement and integrates with our games, making therapy engaging and effective.



**Features:**

- Real-Time Motion Tracking for precise movement analysis
- Seamless Game Integration for AI-powered adaptive therapy
- Boosts Patient Engagement with interactive therapy challenges
- Therapy Progress Monitoring with real-time track of user posture and compensatory movements

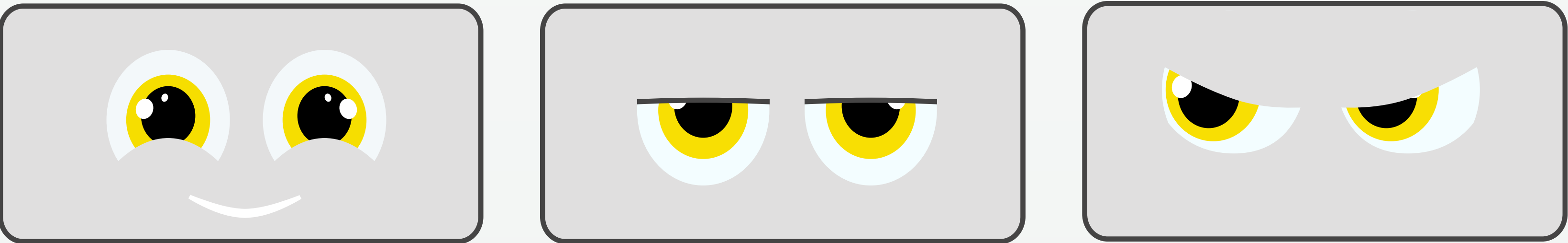
## 05 PHIL (Optional Add-On)

|Rehabilia Services – Comprehensive Support & Customization

Leveraging the modularity of the platform, PhiCube can be easily transformed from an inclusive active game controller into PHIL: a **social companion** designed to extend the habilitation sessions to **behavioral and social interaction skills**. By fixing an external screen to the central body of the device and orienting the resulting face and arms as desired, the patient can socialize with a fun and expressive social robot that stands out from others solutions on the market as it retains all its motor interaction capabilities.

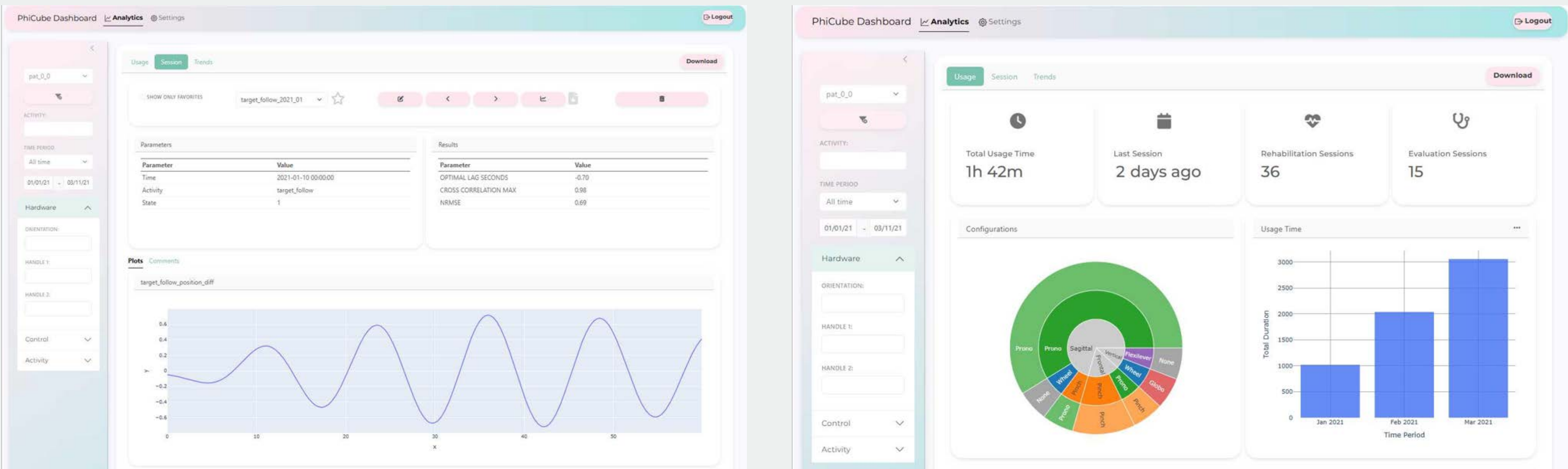


The display is used to render minimal cartoonish face features, designed to stay away from the so-called uncanny valley while still conveying a level of expressiveness suitable for social training purposes. PHIL can estimate the emotional state of the user in real-time and produce **coherent interventions** depending on the goal of the training session.



## 06 Data Assets & AI (Optional Add-On)

Our data management infrastructure is designed to handle the collection, storage, and retrieval of the habilitation **data efficiently and securely**. This system accommodates both local and cloud-based storage options, providing flexibility to meet various **operational needs and data privacy requirements**. This allows for a deeply personalized training program that follows the user throughout the habilitation journey, fundamental to always maintain a well-calibrated level of challenge that translates to active positive engagement and ultimately better outcomes. For therapists, the module generates **detailed reports** that summarize patient performance across multiple sessions. These reports include visualizations of key metrics, making it easier to interpret complex data sets. A simple and intuitive representation of personal progress promote **self-efficacy** aspects: users are protagonists of their own improvements and have a clear tool to see the effect of their commitment. This approach helps children to actively manage their condition ultimately boosting self-management and self-regulation skills.



## Testimonials

### What our users says...

Anonymous Physiotherapist

Patients often show more motivation and response when the rehab is gamified and fun.

Anonymous Parent

Parents want devices adapted to their child's specific needs

Marco Lodi Pasini - Occupational Therapist

As soon as I saw the PhiCube prototype, I imagined it in the hands of my young clients... who could do rehabilitation while playing and having fun, and above all without realizing they were doing rehabilitation. Something that spoke to the healthcare world without being healthcare. A game. A "simple" game. Finally.

Francesca Fedeli

I am particularly fond of the Phi-Cube project because I saw it being born, from the first stages of collecting needs to the creation of the various prototypes. For me it represents a good practice because it includes elements of inclusive design, care in usability and aesthetics, attention to the needs of the beneficiaries (ie. children with Cerebral Palsy and caregivers), customization and use in a domestic environment.

### Some of our many Awards

