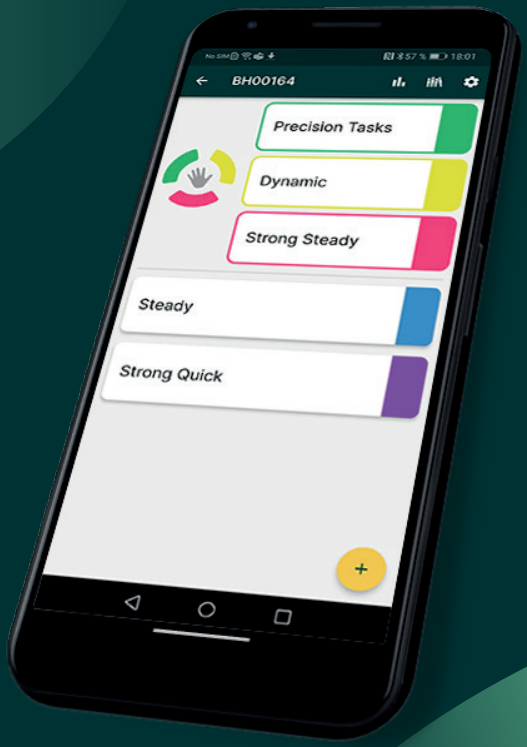
Carbonhand®



Configuration Guide

Carbonhand is delivered with five preset profiles designed to support most activities of daily living. These profiles are intended as a guide only and should be adjusted according to the users' abilities, preferences, and activities.

BIOSERVO

Main adjustments explained

Before changing the configuration of the glove to suit a user, it should be calibrated for that user. The calibration adjusts the finger length of the glove for an optimal fit and comfort.

Maximum Force: Controls the maximum strength of the grip assistance. The higher this setting is, the more strength can be provided by Carbonhand.

Stickiness: The higher the stickiness, the more Carbonhand sticks to objects, requiring more effort to release the grip.

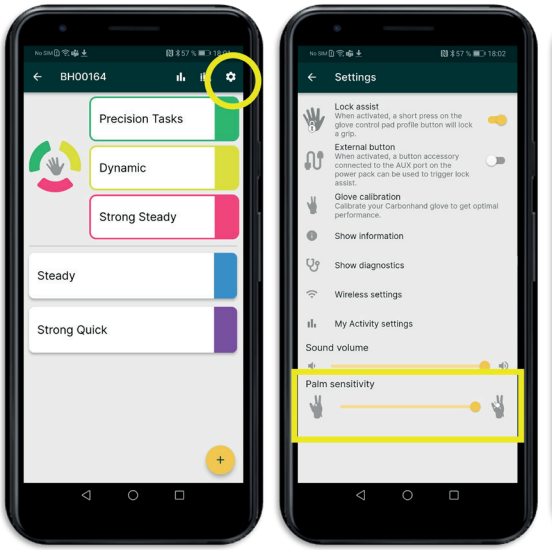
Responsiveness: Controls how quickly the Carbonhand activates. The higher the responsiveness, the more rapidly the Carbonhand will react when activated.

Palm Sensor Sensitivity

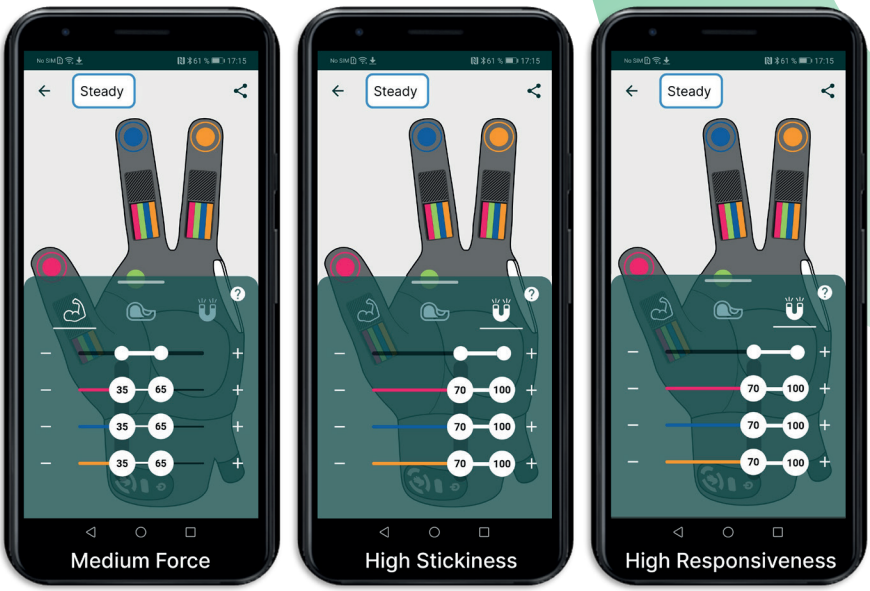
The palm sensor provides an effective way for individuals with limited finger mobility to initiate a grip, particularly when finger flexion is difficult. When linked to one or more fingers, it allows the user to activate a grip as soon as an object comes in contact with the palm sensor.

Palm sensor sensitivity is adjustable in the Bioservo app. Follow the steps below to access the setting:

1. Click the “Cogwheel” in the upper right corner to access settings.
2. Palm sensor sensitivity can be adjusted using the sliding scale located at the bottom of the screen.



Steady



The settings above show a typical range for this type of profile, but each user's settings are customized to their needs.

Example activities

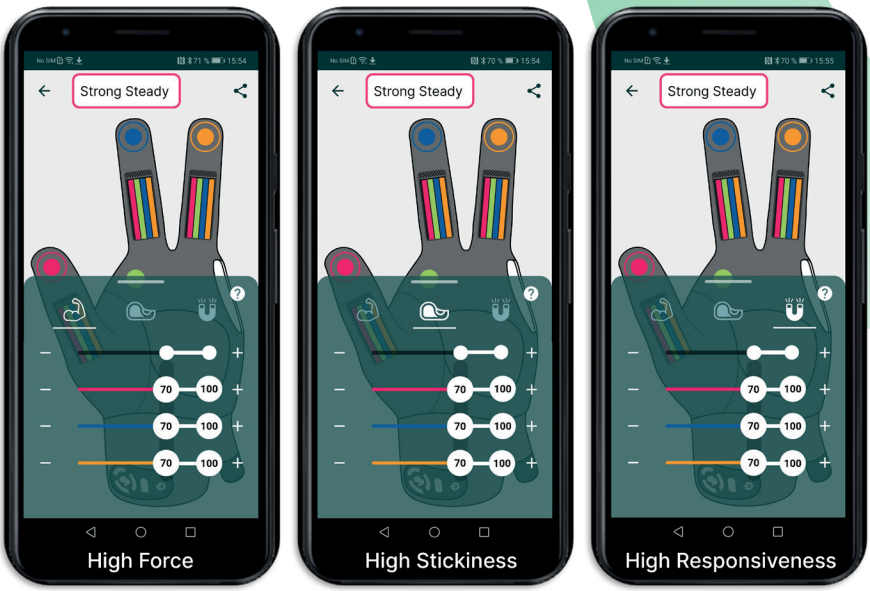
- Cutting with a knife
- Doing the dishes with a hand brush
- Vacuum cleaning
- Using a comb, brush, or a hair dryer
- Brushing teeth
- Carrying a glass of water

Settings

- Linking sensors is recommended.
- Activate Lock Assist when maintaining a steady grip for longer durations.
- High palm sensitivity. Link palm sensor to at least one finger.

Start with a lower force when first trying Carbonhand.
Adjust the settings to fit the patients' ability and hand strength.
Start low and gradually increase stickiness to optimized level.
The sensitivity of the palm sensor can be adjusted under settings in the app.

Strong and Steady



The settings above show a typical range for this type of profile, but each user's settings are customized to their needs.

Example activities

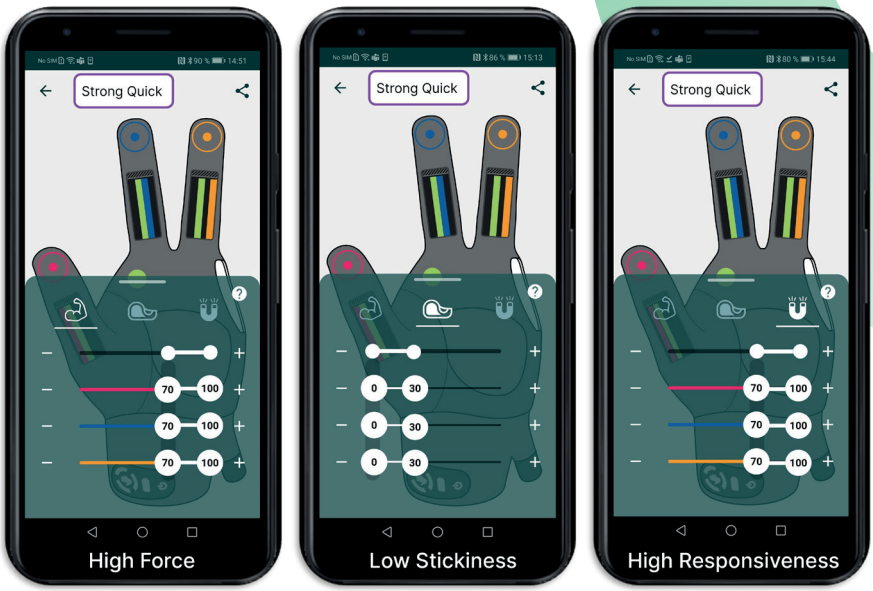
- Holding a frying pan
- Holding a weight or excercise bar/dowel
- Carrying shopping bags

Settings

- Linking sensors is recommended.
- Activate Lock Assist when maintaining a steady grip for longer durations.
- High palm sensitivity. Link palm sensor to at least one finger.

Start with a lower force when first trying Carbonhand.
Adjust the settings to fit the patients' ability and hand strength.
Start low and gradually increase stickiness to optimized level.
The sensitivity of the palm sensor can be adjusted under settings in the app.

Strong and Quick



The settings above show a typical range for this type of profile, but each user's settings are customized to their needs.

Example activities

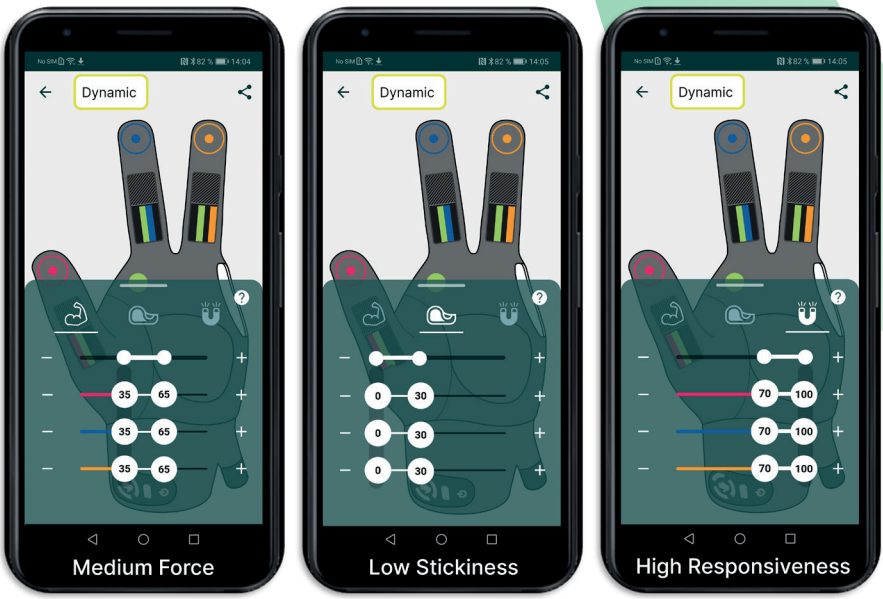
- Opening jars
- Using utensils and tools when quick action is needed
- Using a manual wheelchair

Settings

- Linking sensors to all fingers is not necessary.
- High palm sensitivity. Link palm sensor to at least one finger.
- Activate Lock Assist when maintaining a steady grip for longer durations.

Start with a lower force when first trying Carbonhand.
Adjust the settings to fit the patients' ability and hand strength.
The sensitivity of the palm sensor can be adjusted under settings in the app.

Dynamic



The settings above show a typical range for this type of profile, but each user's settings are customized to their needs.

Example activities

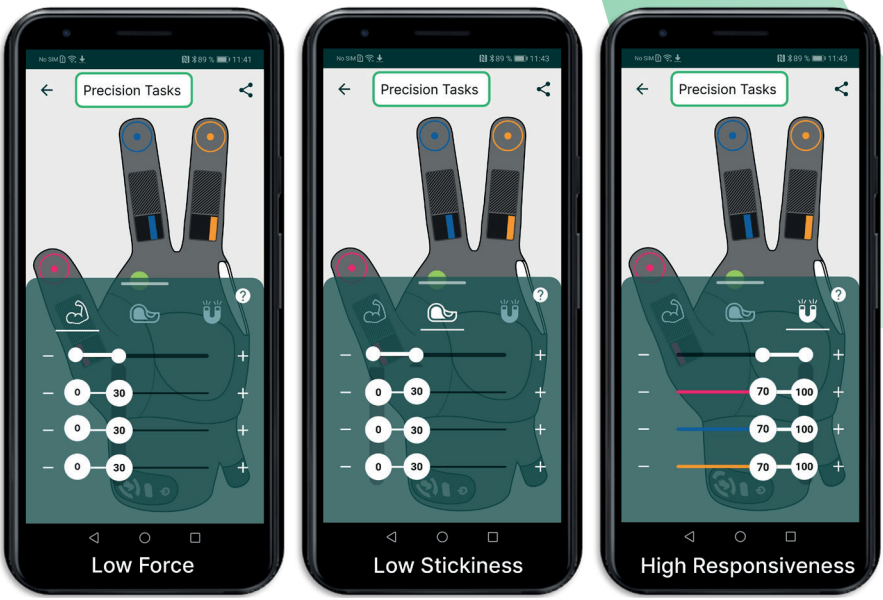
- Holding the railing while going up or down stairs
- Pushing a cart, picking up items, e.g. when grocery shopping
- Eating
- Emptying the dishwasher

Settings

- Avoid linking sensors for dynamic tasks.
- High palm sensitivity. Link palm sensor to at least one finger.
- Activate Lock Assist when maintaining a steady grip for longer durations.

Start with a lower force when first trying Carbonhand.
Adjust the settings to fit the patients' ability and hand strength.
The sensitivity of the palm sensor can be adjusted under settings in the app.

Precision Tasks



The settings above show a typical range for this type of profile, but each user's settings are customized to their needs.

Example activities

- Manipulation of small objects
- Writing with a pen
- Using keys, coins, or a phone.

Settings

- Avoid linking sensors for precision tasks.
- No linking of palm sensor to other fingers or low palm sensitivity.
- Activate Lock Assist when maintaining a steady grip for longer durations.

Start with a lower force when first trying out Carbonhand.
Adjust the settings to fit the patients' ability and hand strength.
The sensitivity of the palm sensor can be adjusted under settings in the app.

More information about Carbonhand

The Carbonhand Academy

You can access the Bioservo Carbonhand Academy by scanning the QR code below. Once registered with a free account, you will have access to a variety of learning resources. After watching all of the videos, an online exam will be available to test your knowledge of Carbonhand. Once you have passed the exam, you will receive a certificate confirming that you have completed the course.

Scan or Click the QR code to go to our Academy!

Carbonhand Getting Started Information

The Carbonhand Getting Started Information is a page on our web site where we have collected the most essential information to get started with Carbonhand.

Scan or Click the QR code to go to the Getting started Information.

Carbonhand User Manual

Scan the QR code below to open the complete Carbonhand User Manual.

Scan or Click the QR code to open the User Manual