



UBILITY™

PRESENTING UbiliFlex™

PERSONALIZED UPPER-LIMB SUPPORT

UbiliFlex™

Built around the individual.

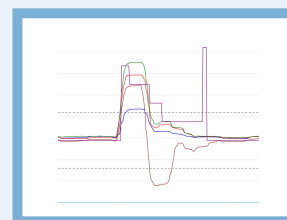
Anatomy-led design.

Integrated technology.

A more personal approach.



UbiliFlex™ with battery and surface-EMG sensor



Muscle contraction. Activation request.

sEMG detects muscle activity used to request brace activation.

01 / THE IDEA

One system. A personal connection.

UbiliFlex™ brings custom-fabricated interfaces, powered elbow support, and muscle-sensing technology together for patients with upper-limb paralysis.

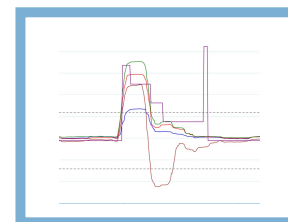
For wheelchair users and patients with complete paralysis of the affected arm, a functional muscle elsewhere can provide the EMG signal.

Patient profile

Patients with paralysis associated with ALS or stroke may be evaluated. A usable EMG signal and individual clinical assessment are required.



UbiliFlex™ brace · lateral view

**Muscle activity becomes an input.**

The detected signal requests activation; the controller commands brace movement.



02 / THE INDIVIDUAL

It starts with anatomy. Your anatomy.

Individual contours guide a more personal fit. 3D anatomical reference data helps shape the design of custom-fabricated interfaces and the way they connect to the brace.

Not simply a size selection.
A design approach built around the person.



3D anatomical reference · cropped to focus on the arm

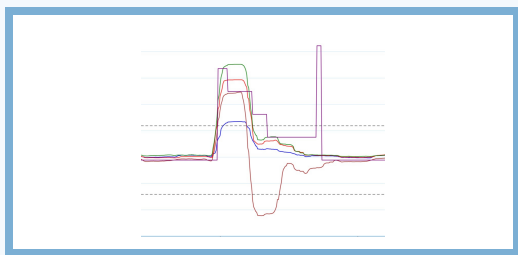


How we build your UbiliFlex™ brace.

The fabrication journey for UBILITY™'s powered upper-limb brace: from the patient's anatomy and functional goals to a personalized brace configuration.



The UbiliFlex™ brace shown with its battery and surface-EMG sensor.



Muscle contraction is detected by sEMG and used to request brace activation. The controller commands movement.

WHAT THIS PROCESS CREATES

A personalized powered arm brace.

UbiliFlex™ is designed to assist bending and straightening at the elbow. These nine steps connect patient anatomy, custom parts, and individualized fitting.

UNDERSTAND THE PATIENT

01

Prescription & functional evaluation

Begin with prescribed needs and functional goals.

02

3D limb scan & direct measurements

Capture the individual's anatomical dimensions.

03

CAD-rectified limb model

Develop the digital reference for custom design.

DESIGN & FABRICATE THE CUSTOM PARTS

04

Custom fabricated cuff and bracket design

Plan patient-specific interfaces and connections.

05

Thermoplastic cuff molded on patient

Shape the contact interface to the individual.

06

Patient-specific 3D printing

Upper and lower cuffs, lower bracket, and custom lower arm bar.

ASSEMBLE, PERSONALIZE & FIT

07

Finishing, padding & assembly

Finish and drill components; assemble with the motor and bar.

08

Alignment, calibration & programming

Set patient-specific joint alignment, sensor calibration, and programming.

09

Final fitting, verification & delivery

Complete the final fit and review of the assembled brace configuration.



Built around the patient.

Lateral view: patient-specific interfaces, supporting structure, and controls.



- 01 Pronation/supination cuff*
- 02 Lower cuff*
- 03 Upper cuff*
- 04 Lower forearm bar*
- 05 Harness attachment
- 06 Main control panel
- 07 Power button

* Custom fabricated for the individual patient.



The brace behind the custom fit.

The powered brace connects with cuffs made for the individual patient.



BRACE WEIGHT

1 kg

Excluding custom-fabricated cuffs.

Powered brace configuration shown.

Patient-specific interfaces. Connected design.

Custom-fabricated cuffs connect the brace to the individual. Their weight is not included in the 1 kg figure.



Details that connect the system.

A closer look at the closure, patient-contact liner, and motor unit.

Magnetic clasp

Closure detail

Liner*

Patient-contact lining



Motor unit

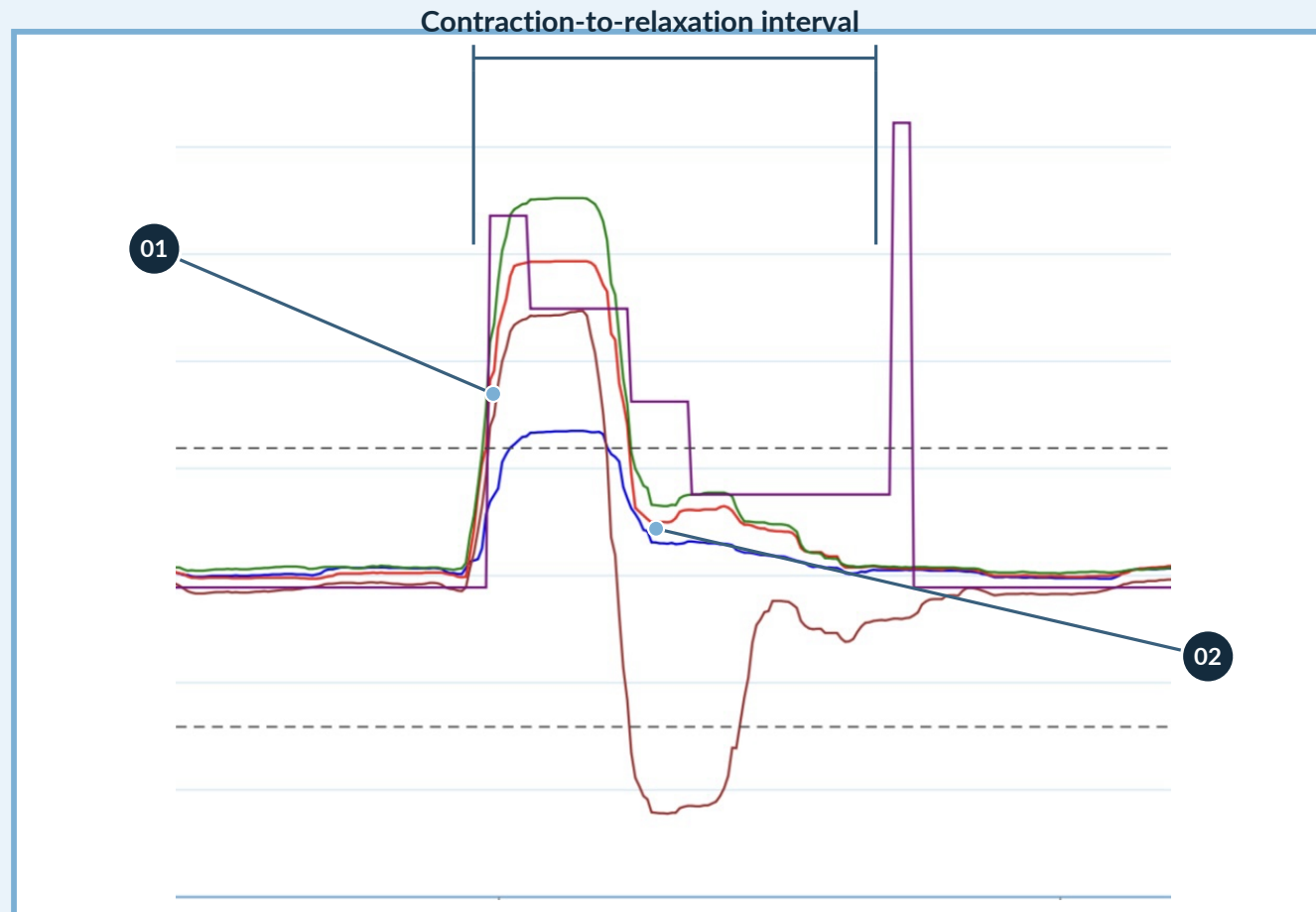
Powered housing

* Custom fabricated for the individual patient.



Muscle activity, made visible.

A descriptive view of muscle contraction and relaxation, using the supplied trace.



01 Muscle contraction

Rising muscle-activity region.

02 Muscle relaxation

The falling activity region following contraction.

From signal to movement

Detected muscle activity provides an activation request. The controller commands the powered brace.

MUSCLE CONTRACTION → sEMG DETECTION → ACTIVATION REQUEST → BRACE MOVEMENT



One integrated brace system.

Core brace components, battery, and surface-EMG sensor.



- 01 Pronation/supination cuff*
- 02 Lower cuff*
- 03 Upper cuff*
- 04 Lower forearm bar*
- 05 Harness attachment
- 06 Main control panel
- 07 Power button
- 08 Battery
- 09 Surface-EMG sensor



Muscle contraction → activation request

The sEMG sensor detects muscle activity. The controller then commands brace movement.

* Custom fabricated for the individual patient.

Brace weight: 1 kg, excluding custom-fabricated cuffs.



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Personalized design. Powered possibilities.

Building a more personal approach to upper-limb support.

Start a conversation with UBILITY™.

General inquiries

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