

# Soft Robotics Hand Rehabilitation System



**EsoGLOVE™**

*"Gain self-reliance in a natural & efficient way!"*



# ABOUT OUR COMPANY

**Rocco Technologies**, the world's pioneer in soft robotics exoskeleton technologies since 2016, dedicated to empower people with neurological disorders and disabilities through innovations and technologies.

**Rocco Technologies'** vision is to be a leading technology company bringing independence and dignity back to people's life.

**EsoGLOVE™** is also registered and approved by the following to ensure quality compliance:

- ◆ US FDA Class II
- ◆ EU CE Class IIa
- ◆ Japan PMDA Class II
- ◆ Australia TGA Class IIa
- ◆ Singapore HSA Class B
- ◆ Korean MFDS Class II
- ◆ Malaysia MDA Class B



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# ABOUT EsoGLOVE™

*Committed to bridge the gap between patient recovery and therapy productivity.*

**EsoGLOVE™** is a lightweight, highly flexible and extremely comfortable hand rehabilitative device, thanks to the patented soft robotic technology.

Pneumatically driven, **EsoGLOVE™** is a soft robotic hand rehabilitation system offers passive, active and bilateral trainings conveniently in comfort.

Targeted to improve fine motor skills of the fingers and upper limb coordination, **EsoGLOVE™** provides opportunities for clinicians to incorporate other therapy elements to enhance the therapy experience and outcome.



# EsoGLOVE™ Pro

The **EsoGLOVE™ Pro** is the flagship model under **Roceso Technologies** which boasts a highly portable and compact system with a comprehensive training programme.

The **EsoGLOVE™ Pro** also comes with a hand tracking module to facilitate the latest bilateral training programme that is packaged as part of the **EsoGLOVE™** series.

Key features of **EsoGLOVE™ Pro**:





# EsoGLOVE™ Pro Luxe

In combination with the high quality arm support system, **EsoGLOVE™ Pro Luxe** compensates the arm weight and weakness, as though operating in zero gravity.

**EsoGLOVE™ Pro Luxe** supports patients with shoulder and elbow impairments for effective upper limb rehabilitation and functional task trainings.



# EsoGLOVE™ Myo

In addition to the features offered by the **EsoGLOVE™ Pro**, the **EsoGLOVE™ Myo** provides training via acquisition electrical impulses through surface EMG sensors.



**EsoGLOVE™ Myo** detects patient intention to move the hand via sEMG signals.



**EsoGLOVE™ Myo** also provides real-time EMG biofeedback to promote motor relearning base on neuroplasticity.

1 Patient's intention

2 Detection of EMG signals

3 Real-time biofeedback via  
EsoGLOVE mobilisation

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## PASSIVE TRAINING

◆ Cyclic Training

◆ Functional Task Training

◆ Static Training



## ACTIVE TRAINING

◆ Active-Assisted Range of Motion Training

◆ Functional Task Training

◆ Bilateral Training

◆ Electromyography (EMG) Training



Passive mobilization exercises are accompanied by real-time 3D representation.

The simultaneous visual effects and proprioceptive feedback are associated to stimulate the patient's neuroplasticity.

## PASSIVE TRAINING - ASSISTED REPETITIVE EXERCISE



# ACTIVE-ASSISTED TRAINING - ENCOURAGING ENGAGEMENT

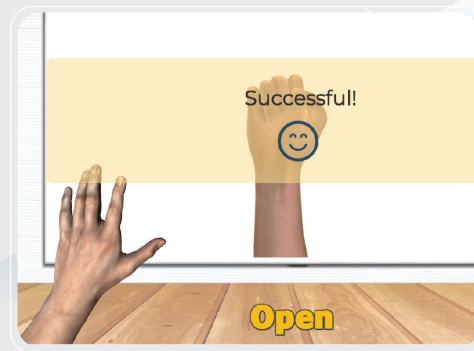
On top of incorporating proprioceptive feedbacks, the **EsoGLOVE™** programme encourages patient participation to further enhance the therapy experience.



# BILATERAL HAND TRAINING - COUPLING THERAPY EFFECTS

Encouraging bilateral hand training may have an impact on re-training the bilateral skills of the brain that can benefit the weaker hand.

The **EsoGLOVE™** programme also incorporates Mirror Therapy in this series of exercise to motivate patients to actively participate in their training exercise creatively.



# EMG TRAINING - POWER IN BIOFEEDBACK



Muscle signals picked up by the surface EMG sensors are projected on-screen and provides biofeedback which may increase motivation to move the affected hand.

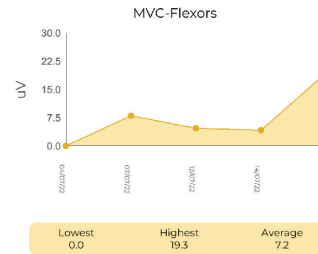
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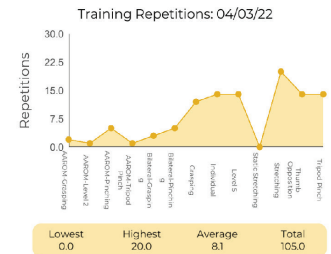
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Age: 12  
Gender: Female  
Affected Side: Right



Patient Code:AO  
Age: 50  
Gender: Male  
Affected Side: Left



Patient Code:demoright  
Age: 60  
Gender: Male  
Affected Side: Right



The **EsoGLOVE™ Hand Rehabilitation System** stores exercise sessions that can be used to monitor patient's progress and provide immediate feedback as therapy continues.



# Contact Us

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



## SINGAPORE

**Email:**  
[info@roceso.com](mailto:info@roceso.com)

**Address:**  
The Curie, 83 Science Park Drive  
#04-01, Singapore 118258

## GERMANY

**Email:**  
[info@rocesomedical.com](mailto:info@rocesomedical.com)

**Address:**  
Spessartstraße 1573433  
Aalen  
Handelsregister: HRB 740566  
Registergericht: Amtsgericht Ulm

EC REP

**Address:**  
Obelis S.A  
Bd Général Wahis, 53  
1030, Brussels  
Belgium