

Company and Product Information

Life Science Robotics ApS

Our medico company is based in **Aalborg, Denmark** and consists of a highly dedicated team. Our goal is to develop advanced medical robotics and provide innovative solutions that improve patient care, optimize work conditions and increase patient flow. We are currently present on the **European and US market**.



ROBERT®

ROBERT® is our innovative and flexible robotic solution to rehabilitation of the lower limbs. The robot is designed to assist with an intensified rehabilitation and start early mobilization.

Standards and Certifications

- ✓ ISO-13485
- ✓ CE Certified
- ✓ FDA Registered
- ✓ Class IIa



Benefits of ROBERT®

• **The Patient**

- Receive necessary amount of training
- Self-training (easily up to 45 min)
- Increase no. of repetitions from 10-20 to 100-200
- Faster recovery
- Flexible rehabilitation
- Side exercises
 - Reduces risk of Pressure Ulcer
- Handle severe pointed foot/clubfoot
- Prevent further muscle wastage

• **The Physiotherapist**

- Improved working environment
- Reduce heavy and repetitive movements
- Double the output per physiotherapist
- Easy and quick set-up
- Multitasking

• **The Hospital/Rehabilitation Center**

- Great ROI
- Ideal Economy of Scale
- Reduction of sick leaves
- More motivated employees
- Minimize risk of diseases spreading
- Shorten recovery period

ROBERT® helps with:

- **Lack of repetitions₁**
 - Australian studies from among others Prof. Dr. Louise Ada has proven that stroke patients and other within complete spinal cord injuries get a faster recovery by having early intensive care with high amounts of repetitions.
 - 240% increase of exercise dose is associated with improved mobility outcomes.
 - Extra lower limb rehabilitation within 6 months of stroke, improves walking ability and walking speed.
- **Muscle wastage₂**
 - Muscle wastage begins within a few days of inactivity.
 - Inactivity causes approx. 0.5-0.6 % wastage of total muscle mass per day equivalent to 3.5-4.2 % per week.
 - Elderly are most vulnerable to greater muscle wastage with inactivity (OUH).
- **Timing₃**
 - First 6 months are crucial for rehabilitation of neuroplasticity and intensive training should especially be applied here.

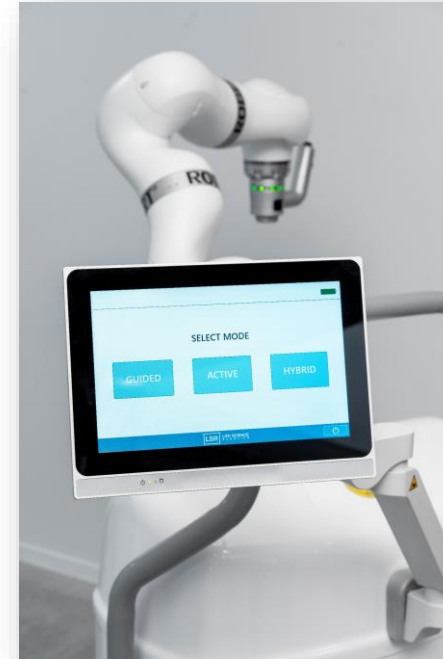
1. Ada et. al, 2006. Scrivener et. al, 2012. Schneider et. al, 2016. *See notes.*

2. Wall et. al, 2013, *Skeletal muscle atrophy during short-term disuse.*

3. CNS, 2020, <https://www.neuroskills.com/brain-injury/neuroplasticity/ten-principles-of-neuroplasticity/>

Functions of ROBERT®

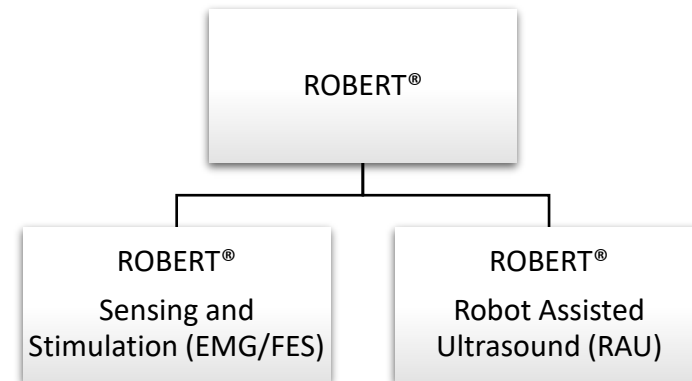
- **3 modes of mobilization training**
 - Active Resistive
 - Active Assistive
 - Passive
- **Up to 999 repetitions**
- **Program many different exercises (flexible)**
- **Program up to 4 different exercises in sequence**
- **Treat patients up to 150 kg/331 lb.**
- **Measures data during training**
 - Amount of kg pushed by the patient
 - Activity level of the patient
- **Guiding sound effects during training**
- **Detects spasm and adheres to the movements**
- **Hand-held “pause”-button for the patient**



Future functions of ROBERT®

- **Data collecting module**
 - Log in patient
 - Save patient information and progress
 - WIFI
- **Presentation of data**
 - Graph – better visualization of data
- **Improved Foot Fixture** ✓
- **Treat patients up to 160 kg/353 lb** ✓
- **Hand Fixture**

Current projects with ROBERT®



Who can we help?

- **Rehab**

- Neuro Rehabilitation Centers
- Rehabilitation Centers

- **Hospital Departments**

- Spinal Cord
- Neurology
- ICU
- Geriatric
- Oncology
- COVID-19

- **Nursing**

- Nursing Homes
- Caretaking Centers for MS and Multi-disabled



Pricing and Cost Benefit

Purchase options

Purchase

- Recommended end-user price is US\$ 148.000,-

Lease

- 6 year-lease with a monthly cost of 1,59% by Grenke Leasing.

Rent

- Monthly rent of € 1.500,- which will be deducted from purchase price.

Maintenance package

- Yearly maintenance (software updates) is € 1.500,-

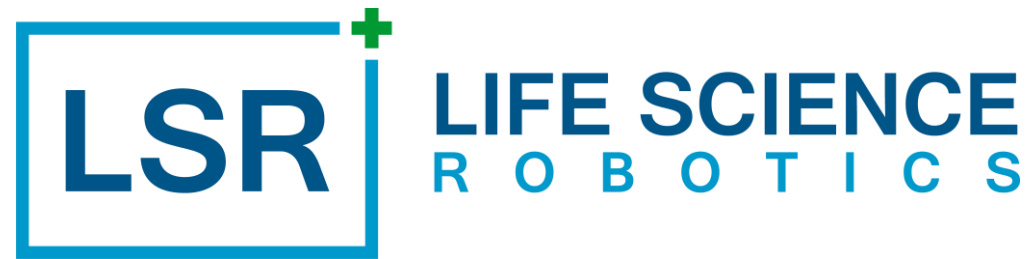
Consumables

- ROBERT® Sheet (S, M, L) US\$ 50.30,-
- ROBERT® Foot Strap US\$17.24,-
- ROBERT® Pillow US\$ 53,-
- ROBERT® Heel Pillow US\$ 53,-

Streams of revenue

- Sales/Lease/Rent of ROBERT®
- Consumables (US\$ 80,- per patient)
- Maintenance packages (Recommended end-user price is € 3.000,-)

ROBERT® COST BENEFIT (ROI)					
€	Unit price	Cost per day	0 ROBERT	1 ROBERT	2 ROBERT
Physiotherapeut (one shift)	€ 9.090	472,2	1,0	1,0	1,0
ROBERT (6 years finance)	€ 148.000	112,1	-	1,0	2,0
Amount of treatment per shift manual			8,0	6,0	4,0
Amount of treatment per shift ROBERT	10			10,0	20,0
Total amount of treatment per day			8,0	16,0	24,0
Total cost			472,2	584,3	696,3
Total cost per treatment			59,0	36,5	29,0
Reimbursement per treatment			28,0	28,0	28,0
Total reimbursement per day			224,0	448,0	672,0
Cost saving per day (6 years finance)	vs. Manual		-	360,2	720,3
Cost saving per month (6 years finance)	vs. Manual			7.563	15.126
Income per day (6 years finance)	vs. Reimbursement		-248,2	-136,3	-24,3
Income per month (6 years finance)	vs. Reimbursement		-5.212,4	-2.862	-511
ROI (EUR/year) (X% cost of capital)	vs. Manual			113.076	232.073
ROI (Years) (X% cost of capital)	4 vs. Manual			1,3	1,3



“Pushing the Limits of True Recovery!”