

Flexibility to Patient Needs

ReoAmbulator™ was designed as a truly flexible system with respect to patient size.

Main conclusions:

Patients of nearly any body dimensions can easily use the system interchangeably due to the following features:

- A set of harnesses designed to support a patient height of 90 – 190 cm, easily enabling pediatric as well as adult usage
- Any patient weight up to 150 kg is fully supported
- Robotic legs are adjustable to any patient pelvic width between 24 – 61 cm
- Robotic legs are easily adjustable to children
- Robotic legs can be moved out of the way for patients able to walk unassisted
- A short set-up time due to an easy and quick patient harnessing procedure
- Wide treadmill allows easy access for a large wheelchair
- Built-in treadmill shock-absorbers create a comfortable walking environment on a hard surface
- Versatile one robotic leg set for adults and pediatric



Technical Specifications

- Length 313 cm
- Width 120 cm
- Height 219-287 cm
- Weight 850 Kg (1874.25 lb.)
- Treadmill width 70 cm
- Treadmill length 130 cm
- Adjustable hip width 24-61 cm
- Patient weight max 150 kg (330lb.)
- Patient height 90-190 cm
- Treadmill speed Max 10 km/hr without robotic legs
- Treadmill speed Max 3.5 km/hr with robotic legs
- Main screen size: 40" HD TV
- Therapist touch screen size: 22"
- System Rating:
115/230 VAC, 50 / 60 Hz , MAX 2,500 VA
- Frequency – 50-60 Hz
- Two USB ports
- One Internet port
- Adjustable hand rail
- Integrated wheels for easy transport



About Motorika

Since 2004, Motorika's mission is to create robot-assisted solutions to meet the therapeutic needs of patients suffering from a variety of neurological conditions, including stroke, traumatic brain injury, spinal cord injury, as well as orthopedic and post-surgery dysfunction.

We work with top experts in the field to develop and market innovative, high-end robotic products for rehabilitation of the upper and lower extremities.

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Reo Ambulator

Get back on your feet



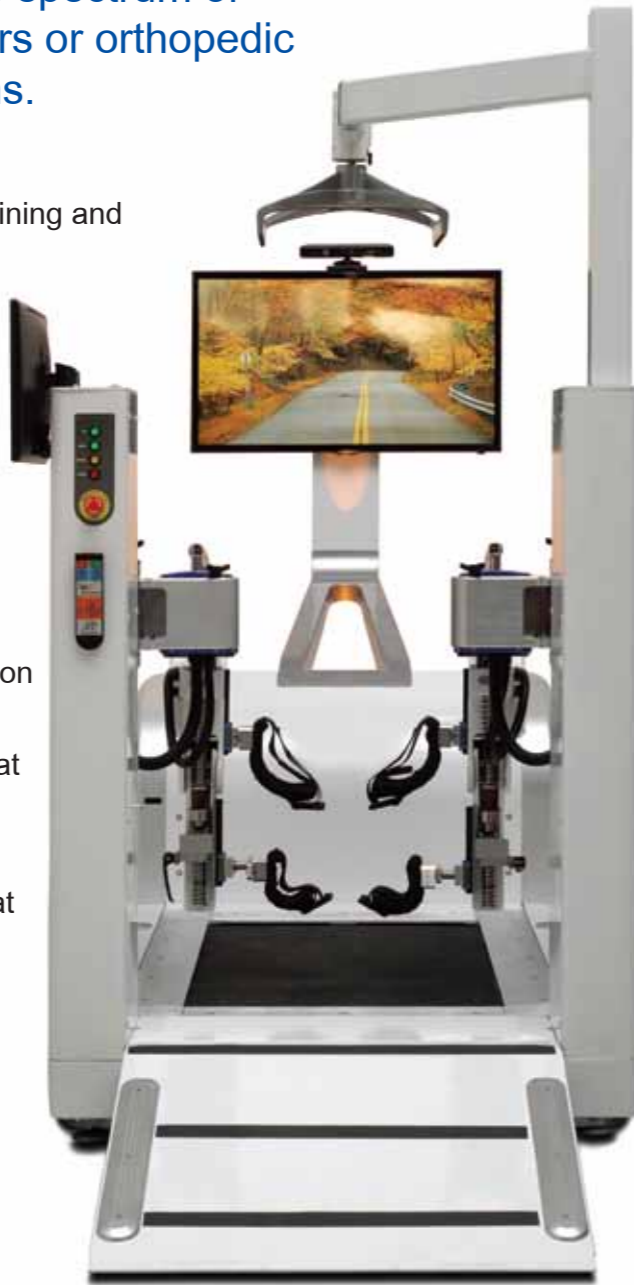
Therapy with a Robotic Touch

ReoAmbulator™ is an innovative high level gait training platform combined with advanced robotics, integrated body weight-support treadmill (BWST), Active Neuromuscular Facilitation Capabilities, Virtual Reality/ Multi-Tasking features and Gait Analysis/Coordination training using auditory and visual feedback. ReoAmbulator™ fits wide spectrum of patients suffering from neurological disorders or orthopedic injuries that affect gait and balance functions.

ReoAmbulator Benefits:

Combining an innovative and proprietary platform for gait training and re-education based on years of experience in Robotics and Neuro-Rehabilitation., ReoAmbulator offers an advanced and clinically oriented rehabilitation solution:

- Intensive, controlled, task specific gait therapy for adults and children.
- Reproduce reciprocal, synchronized normal and natural gait pattern
- Dynamically adapt the rehabilitation process while using multiple modes of operation: a passive mode and various adaptive active modes that involve neuromuscular facilitation
- Increase patient awareness, understanding, engagement and motivation by integrating gait training with multitask that involve upper limb motor and cognitive challenges
- Advance ergonomic design that includes quick harnessing connection with computerized robotic leg height control that leads to a short set up time
- Increase ambulatory therapy efficiency and therapy management by customizing session parameters, and monitoring of patient's objective outcomes and progress
- Customized weight-bearing by shifting load from robotic's support to the patient's legs
- Earlier patients participation in a controlled method of gait re education



What our customers say:

"Before practicing with the feedback, I did not know how to walk correctly and could not keep the correct position of my feet -my legs actually were rotating outside. Now, after the training I know how to balance my body , walk better and I feel more confidence in myself and in the device that will continue helping me in my walking rehabilitation..."

Monica (TBI patient)

Advanced Management Software

The ReoAmbulator robotic rehabilitation system is driven by a user-friendly, versatile therapy management software that is designed to optimize the training in every therapy session for every patient.

The system allows therapists to customize settings, maximizing the patient's benefit and leads to improved ambulatory capabilities.

ReoAmbulator offers the Patient:

- A stimulating VR exercise environment designed to engage and motivate the patient during the therapy
- A safe environment to advance through rehabilitation:
 - Adjustable height, force, speed and robot modes of operation
 - Sensors' closed loop control that will automatically stop the machine for patient safety
 - Built in gait profiles that mimics natural walking pattern
- Exercises are designed to improve:
 - Gait pattern
 - Balance
 - Weight bearing
 - Speed
 - Coordination
 - Endurance

ReoAmbulator offers the Therapist:

- An intuitive user interface, with multi-language support
- A full control of the session and customize exercises specifically to each patient
- Data collection documentation and report of treatment progress:
 - Detailed gait analysis and feedback on patient progress
 - Monitoring and tracking of ambulatory status
 - Ability to print reports and graphs



Practice screen

Advanced Training Modules

The advanced training modules are designed to simulate real life situations

Multi-tasking module

Multiple virtual sceneries providing the patient variation and a realistic environment with real time speed and distance feedback. In addition, motion detection's sensors are designed to follow patient movements in real time, and incorporate a patient avatar in the projected scene.

The software is designed for multi-tasking training, and includes upper extremity exercises. These multi- task exercises are developed for both motor and cognitive rehabilitation. The improvement of patient engagement during the exercise, enhances their motivation. The multi tasking is clinically proven to improve gait and balance.

Gait Analysis Module

ReoAmbulator's innovative gait analysis module is focused on monitoring gait, and providing precise, real-time auditory and visual feedback to the patient. This feedback is proven to improve the patients' gait symmetry.

The gait analysis module was designed for patients able to walk without the robotic legs with optional use of the body weight support function.

The gait analysis screen displays the desired and actual foot positions. The patient can then correct the future steps.

The therapist can adjust step size and frequency during the gait session. At the end of the session accuracy scores are generated. This data is saved and available offline for continued patient monitoring.

