Rehab-Robotics

Member of Vincent Medical Holdings Limited

Visio Roller (VIRO)

For Wheel Chair Training

Using a Wheelchair

Wheelchair training is a very important step for a newly disabled person enabling them to become mobile and more independent.

When a person is confined to a wheelchair there is a very high chance that they will have to encounter various forms of surfaces and gradients. With each situation it requires the person to take a special approach to prevent them from falling or sustaining injuries.

Training

Without training a person may be restricted with their movements and many will be unable or unwilling to maneuver their wheelchair into certain areas making their public experiences much more difficult, dramatically limiting their overall mobility.

The general environment is not always suitable for a wheelchair so it's essential that a person learns how to traverse areas such as ramps, uneven terrain and curbs, there is also the necessary skills of moving forward, backwards, and turning the chair.

Visio Roller (VIRO)

Let's introduce you to our Visio Roller (VIRO) system, an interactive training and exercising system for wheelchair users. It is intended for people who have recently been disabled and for those who want to improve their skills in wheelchair usage and muscle endurance training.

The system allows you to learn the intricacies of wheelchair use before venturing out into everyday life, preparation is key. Not only can Viro provide this type of invaluable training but it also allows you to build up your physical strengh, fitted with a real-time heart rate monitoring system to provide feedback to control the level of exercise.

How does it work?

During training, the user will safely park their wheelchair onto VIRO's platform using the ramp, then security belts are attached to the wheelchair.

Our unique Spinning Resistance control system is tuned to meet the required level of resistance which is a magnetic braking system. The higher the level of the resistance the higher the spinning resistance is experienced on the rollers which the trainee can adjust as well as the spinning resistance level according to his/her physical condition.

Motion sensing system of the rollers are embedded in the Roller Platform Module, by measuring the motion each of the rollers the motion of the wheelchair shall be inversely calculated.

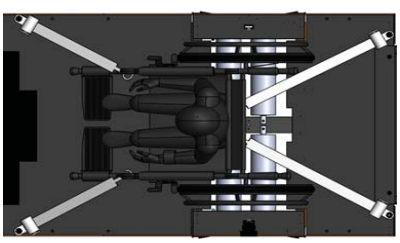
The software reads this data and all motions, including moving forward, backward, turning and holding which will display on the screen. With the help of the device the trainee learns the skill of controlling the wheelchair.

Why it is unique

- The software of VIRO is a Virtual Reality simulation and has three training modes, with different games available. The software program is customisable for different participants depending on their level of skills of using their wheelchair.
- The Real-Time heart rate monitoring system provides feedback for the suitable level of exercise.
- VIRO is simple and easy to operate and can be set up in less than 3 minutes.
- After each exercise, users can view their reports and track their progress.







Intended Use & Features

Intended Use

- For wheelchair beginners to learn the necessary skills for controlling and using a wheelchair
- Exercise device (i.e. treadmill) for wheel-chair users

Features

- Arm Training
- Cardio Monitoring
- Resistance Training
- Virtual Reality Games
- Compatible with most wheelchairs
- Quick setup

Training

Basic Training

For patients beginning with VIRO, basic mode offers them the chance to experience the system for the first time with gentle movements but still provides resistance training and a cardio workout across 4 training sessions

Basic Training opening screen

Patient drives the wheelchair and moves the car until reaching desired point

The graphic shows the car colliding with the wall increasing the hit count

Completion of the task

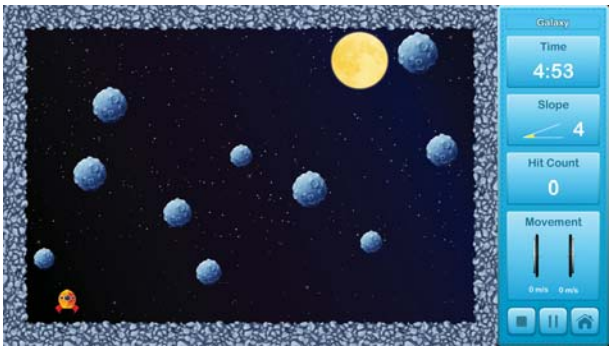
Training

Advanced Training

For more experienced patients the advanced mode enables them to undertake a host of directional movements across 6 training sessions with higher executive functions for training and execises.

Six Training Sessions

Park the car using the motion and direction of the wheelchair



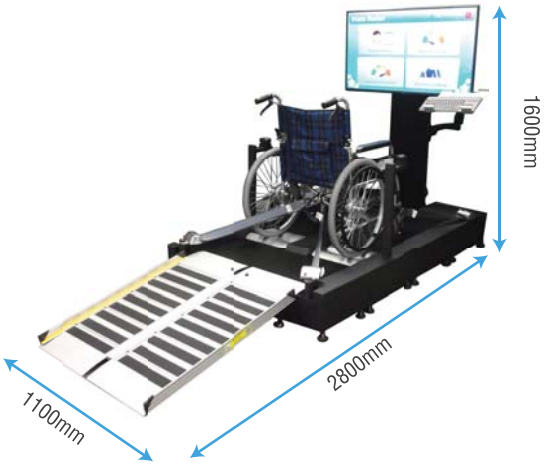
Sightseeing Mode

A unique function where the patient can visit 5 separate locations around the world providing them with a virtual reality experience with inclines and speed adjustments to provide resistance and cardio training as well as maneuvering over different floor surfaces.

Selecting a place to visit

The patient can visit Egypt or 4 other locations

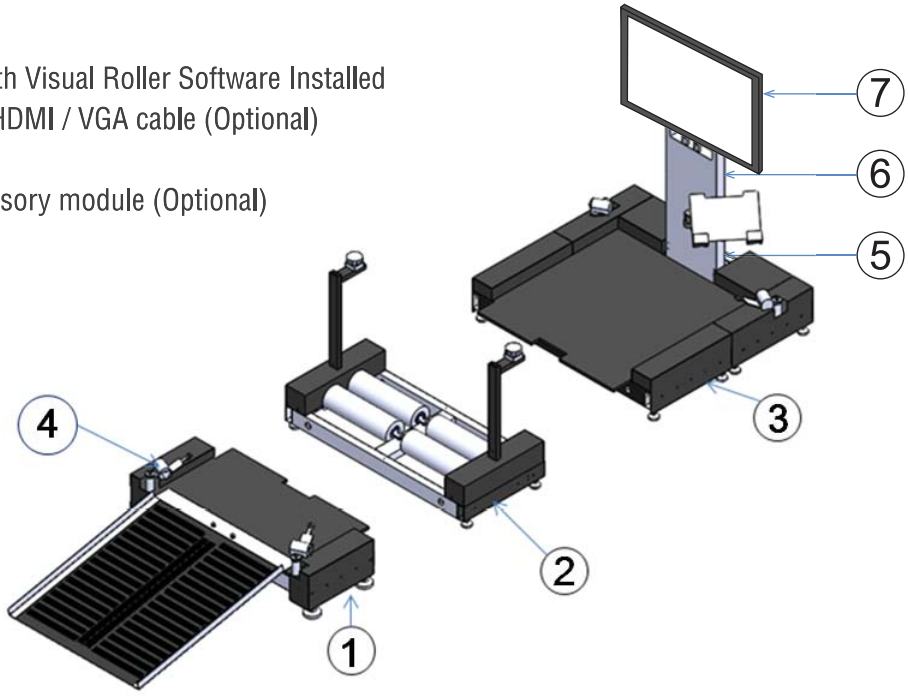
Specification



Dimensions (W x L x H)	1100 x 2800 x 1600 mm
Weight	152 kg
Max weight capacity (including the wheelchair)	100 kg
Recommended Wheelchair	Self-propelled wheelchair where Rear wheel = 16-24 inch, Width ‹ 700mm
Power Supply Unit	Input Power 100 – 240V AC, 0.5~0.5A, 50/60Hz

The VIRO system includes the following items:

1. Front Platform module
2. Roller Platform module
3. Rear Platform Module
4. Safety Belt Unit
5. Control Box Receiver
6. Computer system with Visual Roller Software Installed
7. 32”- 42” monitor & HDMI / VGA cable (Optional)
8. User manual
9. A heart-rated supervisory module (Optional)



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We are Rehab-Robotics...

Rehab-Robotics is an award winning company committed to advance technologies in the rehabilitation profession to help patients achieve their maximum recovery outcomes.

We are dedicated to provide the integration of robotics into a patients training activities of daily living, continuous education and professional support.

Rehab-Robotics Company Ltd.

Unit 307, 12W Building, Hong Kong Science Park,
Shatin, Hong Kong

Tel: (+852) 2416 4832
Fax: (+852) 2437 9407
info@rehab-robotics.com

Rehab-Robotics Company Ltd.

European Office
Valencia, Spain

Tel: (+34) 96 198 2710, (+34) 638 953 601
paul.johnson@rehab-robotics.com

www.rehab-robotics.com

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