



vast.rehab

FUNCTIONAL TRAINING WITH VIRTUAL REALITY



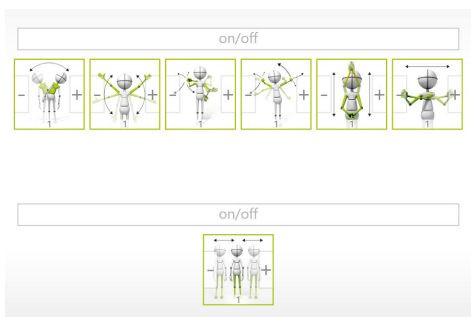
VAST.REHAB OVERVIEW



Dual tasking including the upper limbs for a full body workout on a treadmill



Create specific trainings in the VAST.Rehab software



Huge task generator with many variations of games, choices for body regions to address, as well as time and difficulty.



VAST.Rehab is a revolutionary training solution for h/p/cosmos treadmills. This innovative technology fuses training, rehabilitation, virtual reality and serious gaming, transforming treadmill workouts into active and diverting dual tasking sessions with engaging experiences.

With VAST.Rehab, treadmill training is no longer a tiring routine but a dynamic and exciting journey that stimulates the play instinct.

VAST.Rehab - Functional training with virtual reality

VAST.Rehab allows virtual reality experiences during standing, walking or running on a treadmill. The subject's body will be tracked by a camera while being on the treadmill. As a dual tasking exercise besides walking, the subject needs to fulfil different tasks, involving the upper limbs, body posture or the position on the treadmill.

The VAST.Rehab interfaces

The VAST.Rehab software platform consists of a therapist and a patient panel. Both platforms can be run on the same PC or in case of multiple patient stations on dedicated PCs. The therapist panel allows to create and manage patients. Afterwards the therapist assigns the available selection of trainings as well as personalized training targets. The software also includes features for evaluation, feedback and documentation.

The patient panel is the gamified part of the system right in front of the treadmill on a big TV screen, displaying the patient's games and results.

State of the art gamification

Chose from more than 30 interactive games focusing on varying cognitive and motor tasks. The subject is tracked via a special camera and represented live as an avatar to fulfil motion-activated solutions, such as:

- Change the position on the running deck (left – right) in order to race an ambulance car through the busy streets of a town
- Fold your hands and navigate a spaceship to avoid obstacles
- Throw a ball and hit the tins
- Swing your arms like you were holding a sword to hit funny vampires
- Position your arms like a clock to block balls with a stick

A short video clip using the VAST.Rehab system on the quasar® med treadmill at a therapy centre. Equipped with the safety arch and speedplate it is a great device for return to sports training.

The video is featuring many games with a wide variety of movements. This is also possible with simultaneous perturbation events.



YouTube



BENEFITS FOR THERAPY



Example task: swing a sword and defend yourself against vampires



Example task: steer the spaceship via your upper body movement



Example task: balance balls into their targets with your arms

VAST.Rehab uses a wide variety of therapeutic tasks to enable training in all rehabilitation domains:

Musculoskeletal

- Range of motion
- Strength
- Endurance
- Fitness and cardiovascular training

Neurological

- Movement quality (gross and fine motor skills)
- Movement awareness and proprioception
- Bilateral movements in response to bilateral stimulation

Balance and Equilibrium

- Trunk and postural control
- Anticipatory postural responses
- Adequate reactions to stimuli and distractors placed in preplanned or random positions

Technical specifications - What do you need for VAST.Rehab?

- h/p/cosmos treadmill with UserTerminal Touch Pro incl. coscom® v4 (via Ethernet)
- High resolution camera for body detection
- Optionally needed to measure and transmit step frequency: speed sensor (cos101000_brake_as) and FTMS interface (cos101000_FTMS)
- State of the art PC system, recommended: h/p/cosmos satellite PC (cos14970-03)
- TV (e.g. cos102397) and TV stand (e.g. cos101624) or wall mount

Minimum system requirements for VAST.Rehab

- Windows 10 | Intel i3 CPU or better | 8 GB RAM
- 2 PC monitors
- Available USB, Ethernet and Bluetooth® interface
- Utilization of Touch screen is possible

RECOMMENDED CONFIGURATION MERCURY® MED: FUNCTIONAL TRAINING WITH VIRTUAL REALITY



pos.	qty.	order number	product description
1.	1	cos31042	h/p/cosmos treadmill mercury® med - running surface 150 x 50 cm, speed range 0 ... 22 km/h, elevation 0 ... 25 %, UserTerminal Touch with keyboard and touch display, integrated interface and coscom® v4 protocol
2.	1	cos101000_touch_pro	Upgrade UserTerminal TouchPro , Upgrade of the UserTerminal Touch Basic to UserTerminal TouchPro for professional applications and special features
3.		cos102918-01	Handrails long , straight for pluto® and mercury® models with running surface 150 x 50 cm
4.	1	cos10079-01va01	Safety arch 50 with harness & chest belt / stop function, fall protection for all applications (mandatory for high risk applications); running surface 50 cm wide
5.	1	cos104823	VAST.Rehab system software including licence and dongle
6.	1	cos104823_cam	Camera including mounting kit
7.	1	cos14970-03	h/p/cosmos satellite PC med DELL PC, 2x 24" LCD Monitor, COL Laser printer, potential isolation transformer, h/p/cosmos PC-rack with 4 casters
8.	1	cos102397	Monitor TV 50" (with a small monitor stand for table)
9.	1	cos101624	Monitor stand mobile for TV 32-60" monitor stand (without monitor!) for additional TV / monitor (max. load: 30 kg), height: 180 cm.
10.	3	cos60098010002	Labour costs per hour for service engineer
11.	1	cos102522-01va07	Packing treadmill 150/50 (SA), packed part assembled in a wooden box, incl. safety arch (L: 274 cm / W: 122 cm / H: 163 cm)
12.	1	cos60098010021	Transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)
13.	1	cos10194	Installation, commissioning and instruction through authorised and trained personnel

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ESSENTIAL CONFIGURATION MERCURY® MED: FUNCTIONAL TRAINING WITH VIRTUAL REALITY



pos.	qty.	order number	product description
1.	1	cos104823	VAST.Rehab system incl. software + licence + dongle
2.	1	cos104823_cam	Camera including mounting kit

For existing h/p/cosmos treadmills with safety arch, TV, computer and periphery.

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h/p/cosmos dealer contact:

manufacturer

h/p/cosmos sports & medical gmbh
Am Sportplatz 8
83365 Nussdorf-Traunstein
Germany

phone: +49 86 69 86 42 0
fax: +49 86 69 86 42 49

sales@hpcosmos.com
www.hpcosmos.com

teams: @hpcosmos.com (search & select name)
youtube: [youtube.com/hpcosmos](https://www.youtube.com/hpcosmos)
TikTok: [tiktok.com/@hpcosmos](https://www.tiktok.com/@hpcosmos)
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