



WALK BOT

Robot assisted Gait training System



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We create the finest **robot-assisted** gait rehabilitation system named 'Walkbot Premium', exclusively designed only for adult patient, combines all the superlative and cutting-edge features of Walkbot series in order to bring the best outcome in patient's locomotor recovery. Its excellent performance enables maximization of the dynamic locomotion therapy and user's satisfaction, and it ultimately sets a new standard of gait rehabilitation robot.

Next Step Toward Perfection

Walkbot Premium

Re-walking For Perfection Goes Far Beyond The Infinity

Dynamic body weight support

Real-time unload adjustment and inertia compensation during walking enable optimization of the most physiological walking pattern.

Synchronization of Hip, Knee and Ankle

Walkbot aims at making patients learn correct **gait pattern** as exactly as possible with the help of perfect synchronization of three actuated joints which is designed based on actual gait algorithm of biomechanics study. In addition, its unique technology, 'Ankle joint drive', assures natural and unobstructed swing phase in gait cycle.

Automatic adjustment system

This brilliant **automatic leg length adjustment** system provides unlimited and patient-specific gait pattern according to each patient's anthropometry through precise adjustment by **Imm** resulting in more accurate gait training, and reduces time consuming of preparation process that leads to more cost-effective operation.

Active augmented virtual reality software with 42" wide LCD screen

Augmented environment immerses patient in highly repetitive therapy so that it encourages their neuroplasticity leading to more fast recovery.

Impedance control

The "**patient-cooperative**" approaches are able to detect patient's voluntary efforts and allow patients to actively influence a gait pattern during the rehabilitation processes. This method is a key technique of "patient-cooperative" strategies that enables patient's increased freedom of movement resulting in much higher self-activation and improved therapeutic outcome.

Motion analysis

Patient's actual kinetic and **kinematic data** performed during the training are **recorded** and can be reconstructed as 3-dimensional image to analyze and rectify inaccuracies at an operation panel.

Force plate (optional)

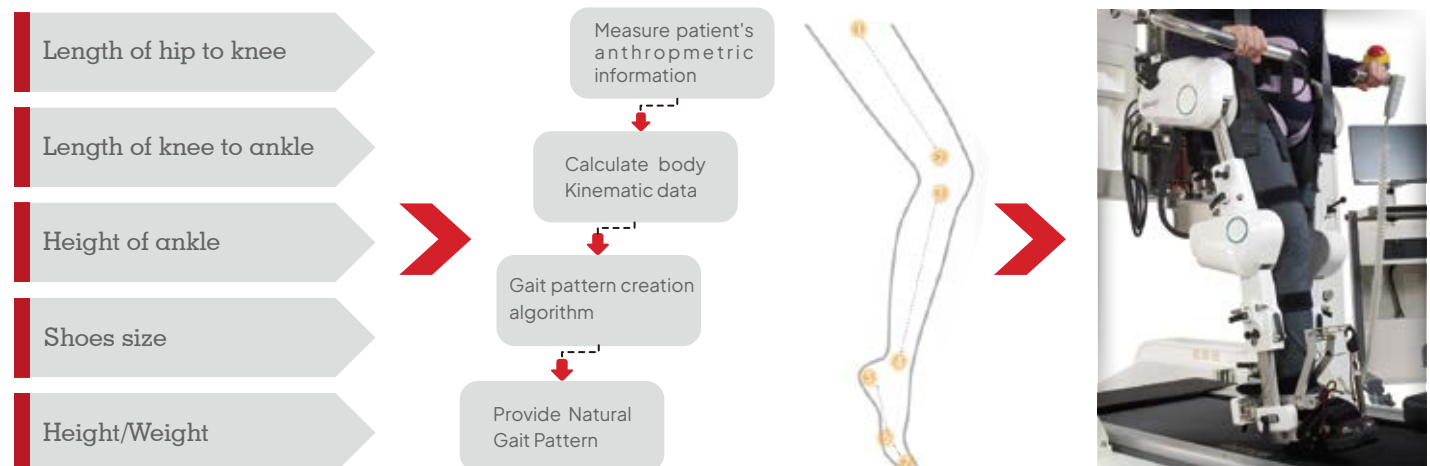
It analyzes and corrects the patient's gait through measurement of center of pressure, gait balance with **time synchronous video recording**.



"WALKBOT is a superlative robotic gait training system that provides the most natural and accurate gait rehabilitation training for patients with neurological disorders and gait impairments"

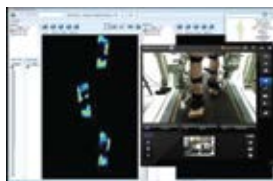
NGPG (Natural Gait Pattern Generator)

The Walkbot is designed to provide the most natural **kinematic and kinetic gait patterns**, which helps patients with **acute or chronic stroke, spinal cord injury or any gait related impairments** to relearn the optimal locomotor pattern in order to accelerate faster recovery during the initial rehabilitation phase.








Smart Solutions Perfection

- Augmented Reality 3d Software
- Force Plate
- Gait Analysis
- Measurement & Evaluation
- Session Report



"Product Line-up"

		Adult			Pediatric	
		Walkbot® Premium	Walkbot® G	Walkbot® S	Walkbot® G (K)	Walkbot® K
						
Robot Orthosis	Robotic gait orthosis for adult	✓	✓	✓	Compatible	
	Robotic gait orthosis for pediatric		Compatible		✓	✓
	Synchronization of motorized Hip-Knee-Ankle drive	✓	✓	✓	✓	✓
	Automatic leg length adjustment	✓	Manual	✓	✓	✓
Reverse-weight system	Dynamic body weight support	✓	✓	Dual active	✓	Dual active
Option	Augmented reality feedback	✓	Optional	Optional	Optional	Optional
	Force plate	Optional	Optional	Optional	Optional	Optional
	3D motion analysis system	✓	Optional	Optional	Optional	Optional

"Technical Specifications"

	Walkbot® Premium	Walkbot® G	Walkbot® G (K)	Walkbot® S	Walkbot® K
Patient Height	140~200cm	132~200cm	86~148cm	140~200cm	86~148cm
Leg length (Hip-Knee)	350~480mm	330~480mm	210~350mm	350~480mm	210~350mm
Leg length (Knee-Ankle)	353~483mm	330~480mm	212~352mm	353~483mm	212~352mm
Dimensions (L x W x H)	380 x 200 x 257cm			390 x 168 x 257cm	390 x 168 x 240cm
Space requirements (L x W x H)	530 x 300 x 265cm			540 x 400 x 265cm	540 x 400 x 249cm
Power resources	AC 230V, 50/60Hz Single phase 10A				



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