

For the last decade, researchers and engineers from the Rehabilitation Institute of Chicago, Northwestern University and HDT have worked together to bring clinicians a novel therapy system for gait and balance recovery. This system, called the KineAssist – Mobility eXtreme (MX) provides clinicians with evidence based tools and treatment guidelines to get patients back in the community confidently and doing more than they did before (Brown et al.). The research supporting the system has been presented both nationally and internationally at several conferences in recent years.\*

The KineAssist-MX Walking & Balance system offers unique benefits to patients and their care providers.



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## KEY FEATURES

- Ability to safely challenge patients in real life environments, such as over ground walking, step climbing, standing balance and dynamic balance therapy
- Efficient use of clinician's time
- Protect patients from the consequences of losing their balance which builds confidence in their abilities while they increase strength and stamina
- Easily adapts to the environment and integrates with a wide range of existing practice settings
- Provides objective, standardized outcomes data
- Treadmill surface moves in direct response to the user's intention
- Scientifically-tested challenge-based training protocols
- Rapid fall recovery for resumption of training
- Documentation of progression
- Combined intervention protocols incorporated in a single session
- Body-weight support at the hip allowing for natural gait
- Novel force-field environments
- Provides ability to impose perturbations



## KINEASSIST – MOBILITY EXTREME (MX) SPECIFICATIONS

### ORDERING INFORMATION

HDT Part Number HDT-R000454

### PERFORMANCE SPECIFICATIONS

Maximum patient weight	350 lbs	158.8 kg
Continuous body weight support	≤175 lbs	≤79.4 kg
Hip range of motion		
Vertical from treadmill surface	18.5" – 58.5"	46.99 – 148.59 cm
Lateral	±4"	± 10.16 cm
Pelvic width*	11.5" – 22.4"	29.2 – 56.9 cm
Maximum treadmill speed	Up to 6.7mph	3m/s

### COMMUNICATION BUS

CAT5 Ethernet Port, open or site to site VPN (with required security), wireless optional

### POWER REQUIREMENTS

115 VAC, 15A, 50/60 Hz or  
230 VAC, 15A, 50/60 Hz

### PHYSICAL CHARACTERISTICS

L x W x H	92" x 48" x 86"	233.7 x 121.9 x 218.4 cm
With lift chair installed (either right or left side)	92" x 67" x 86"	233.7 x 170.18 x 218.4 cm
Space requirements	128" x 96" x 96"	325 x 244 x 244 cm
Weight	1289 lbs	584.7 kg
With lift chair	1439 lbs	652.7 kg

\* Narrower width with optional extra small harness

## PUBLICATIONS

- Capo-Lugo C, Mullens, C, Brown DA: Maximum walking speeds obtained using treadmill and overground robot system in persons with post-stroke hemiplegia. *J. Neuroeng Rehabil.* 2012 Oct 11;9:80. doi: 10.1186/1743-0003-9-80.
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- Hidler, J and Brown, DA: Robotic Devices for Overground Gait and Balance Training in *Neurorehabilitation Technology* by Dietz, Volker; Nef, Tobias; Rymer, William Zev (Eds.), Springer, 2012.
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- Capo-Lugo CE, Mullens C, Brown DA: Maximum walking speeds obtained using treadmill and overground robotic system in persons with post-stroke hemiplegia. 2012 Combined Sections Meeting of the APTA, Chicago, IL
- Anand I, Bell S, Kerzee-Stames A, Logan, J, Schmidt K, Brown DA: Individuals post-stroke walk faster with body weight support on a challenging, compliant surface. 2011 Combined Sections Meeting of the APTA, New Orleans, LA.
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- Burgess JK, , Brown DA: Variations in loading type cause timing changes in paretic leg extensor muscles during pedaling. 2010 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2010. Online.
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