

Pediatric overground exoskeleton for rehabilitation

Bambini Teens

We Raise you UP!

Key to Robot Therapy !
An ankle-assisting function that supports
effective gait rehabilitation

Children with congenital walking disabilities who have difficulty moving their ankles correctly during walking cannot acquire the ability naturally from birth. Bambini Teens can support natural walking training by having motors installed in their ankles.



Pediatric overground exoskeleton for rehabilitation

Key features of Bambini Teens



User height
110 ~ 160cm



User weight
Up to 65Kg



Active & passive
Walking support
modes



Ankle motors
Dorsiflexion
implementation



**Wide range of
indications**
Applicable to both
severe and mild
patients



**Customized walking
patterns**
Adjustable stride, height,
and speed



Key Indications

Children with severe to mild walking disabilities due to developmental delay and acquired walking disorders, such as cerebral palsy, pediatric paralysis, traumatic brain injury, and multiple sclerosis



Bambini Teens is a ground-walking wearable rehabilitation robot developed exclusively for young children with congenital or acquired neurological disorders to receive proper and efficient walking therapy. It features both Active motion gait and Passive motion gait functions, making it suitable for a wide range of indications. Bambini Teens is the first ground-walking wearable rehabilitation robot to apply ankle motors, enabling Dorsiflexion and Plantarflexion implementation for a more natural walking pattern during walking therapy.

Key to Walking Therapy ! Bambini Teens



Fast and easy size adjustment and wearing

- One-touch buckle for quick and easy wearing
- Can be worn within 3 minutes after size adjustment, and can be taken off within 30 seconds
- Applicable for a wide range of user heights and weights
- Effective gait training for various indications



Effective gait training for various indications

- Severe gait disorder children can receive efficient gait therapy with the passive walking mode, and mild gait disorder children can receive therapy with the active walking mode, resulting in high satisfaction
- The wearable rehabilitation robot is the first to apply an ankle motor, making it possible to implement dorsiflexion and plantarflexion movements, allowing for more natural gait patterns during therapy



Improved gait safety with a dual safety system

- The therapist can immediately stop the device in case of an emergency during therapy by pressing the stop button
- There is a function to immediately stop the device in case of resistance caused by severe spasticity during walking, enhancing safety during sudden situations



Digital report function

- The therapy session result report file can be sent to medical professionals by email immediately
- The training results can be viewed in graph format for easy progress monitoring
- Patient/user body data can be easily managed and stored on a tablet PC

COSMO ROBOTICS



The CDC (Centers for Disease Control and Prevention) states that cerebral palsy (CP) is a group of disorders that affect a person's ability to maintain movement, balance, and posture. CP is the most common motor disability in childhood. "Cerebral" refers to the brain and "palsy" means weakness or problems using muscles. CP is caused by abnormal brain development or damage to the developing brain, which affects a person's ability to control their muscles.

It has been reported that the central nervous system has the ability to change, which is called "neuroplasticity". This allows people to partially compensate for lost function due to new skills or trauma or disease. Studies have reported that using ground-walking wearable robots for long periods of intense training can affect neuroplasticity, and that it is more efficient in younger patients.

 **COSMO ROBOTICS CO., LTD.**

801-1, Ace Techno Tower 5th Building, 20,
Digital-ro 31-gil, Guro-gu, Seoul, Korea

T. +82-70-4375-3821 / +82-2-2051-1596
F. +82-2-2051-1594

Web. www.cosmo-robotics.com
http://www.cosmofamily.com/e_sub02/sub06.php