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TECHNOLOGIES FOR THE IMPROVEMENT OF THE MOBILITY OF PEOPLE WITH MOTOR AFFECTATION

Patent

ES1138935 U
and
ES1104783 U

Code

BIO_UAH_11

Application areas

- Information and Communication Technologies
- Other Industrial Technologies
- Biological Sciences



Type of Collaboration

- Technical cooperation
- Commercial agreement with technical assistance
- License agreement

Main Researchers

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Fig. 1: Andador



Fig. 2: Silla de
ruedas eléctricas

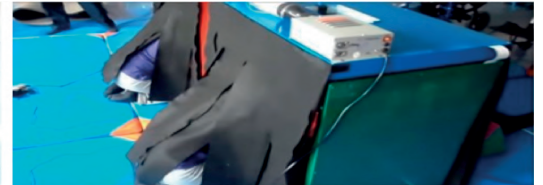


Fig. 3: Cabina multisensorial portátil

ABSTRACT

Walker for the improvement of the mobility of people with some motor affectation. This walker incorporates a guide for the legs that improves the maneuverability of the users, and also is accompanied by an electronic that allows the configuration of basic actions. The walker can be adjusted to the height of the child, allowing to configure different positions as well as adapting to the different weights of the user. The structure is made up of three distinct parts: a structure with wheels that provides stability, a harness with leg brace that supports the child and an electronics that provides functions added by software.

Portable multi-sensory cubicle that allows users with serious cognitive and / or physical conditions to receive an individualized multisensory stimulation.

It is easy to transport and store, and its structure of felts can isolate relatively the user. In this way, different methods of multisensory activation of the user are combined in an integrated way, providing him with auditory, optical and tactile stimulus.

The cubicle contains folding panels, felt pieces or opaque fabrics, an exterior decoration for tactile stimulation of the user, as well as an opening in one of the sides of the structure that allows to incorporate a tablet or digital device for the visual stimulation of the user. At the same time this tablet can be connected to a control electronics allowing amplification of the sound to act on the speakers and LEDs inside the cubicle. In addition, it is possible to interconnect several multi-sensory cubicles, just in case that it is desired to increase the size of the cubicle.

Electric wheelchair for children between 2-5 years of small size that allows the child to sit. It is characterized by its small size and it is easy to disassembly. It is supported on two axles with wheels, housing in the rear axle two electric motors that allow the mobility of the chair. In addition, the structure allows to accommodate the system of power batteries and a joystick that allows its control.

ADVANTAGES AND INNOVATIONS

- Walker:** This walker allows to rotate in a relatively normal form, without forcing the patient to make exaggerated movements with the feet. For this, it contains guides in the design that transmits the lateral displacement almost immediately to the structure of the walker, as well as a development based mainly on flat pieces.
- Electric chair:** The developed electric chair tries to cover the existing gap in this type of products for young children, on the other hand it has been complemented with a design that allows to place the Joystick in the front to be handling by the child or in the back to be controlled by an adult accompanying the child. On the other hand the bar that supports the Joystick can be removed to approach the classroom chair.
- Multisensory cubicle:** The multi-sensory cubicle combines in a very small space the possibility of performing visual, auditory and tactile stimulation so that they can be combined in an individualized treatment room either for postural changes, for relaxation or for stimulation.