Ariana Mechatronics Researchers







The Best Balance system is used, among others, by:













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-تعادل سنج كنترلي

شركت مهندسي ودانش بنيان یژوهشگران مکاترونیک آریانا



Ariana Mechatronic



Best Balance

Introduction

Best Balance as a reliable and valid measurement of the functioning of posture control mechanisms is a prerequisite for discovering the reasons for balance problems or evaluating the effects of treatment and rehabilitation. The Best Balance System, developed in close co-operation with research and clinical work, is the answer to this need. The solutions are based on modern digital technology.

Usage Fields

Physiotherapy, Neurology, Ear, Nose and Throat, Sports Medicine, Occupational Medicine, Orthopedics and Surgery, Gerontology and Geriatrics Physical Medicine and Rehabilitation

Static Balance Measurement

On thae basis of the force signals the system produces a dimensional curve showing the amount and characteristics of postural sway throughout the registration period. In static test, the patient stands still on the plate, and then the device measures his/hers



staticbalance'sParameters such as Average and Maximim Speed in X and Y Axis and its Covered Area

Patient Info Entry





Amount of pressure on each foot

Best Balance has the Ability to measure the amont of pressure on each foot. Also the patient can be asked to put most of his weight on one of his/her feet in order to stenghten his/her muscles.



Biofeedback Training (Dynamic)

Best Balance's Dynamic Training using biofeedback is a usefull and Joyous feature of it, which is also very easy to learn. The Patient can see his/hers Balance's condition on the monitor and he/she can try to to change and improve it.



nic tests' featu

Custom test Creation Predefined Tests based on best prac-

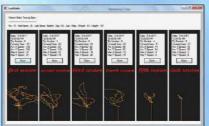
The ability to save and load each test and its Balance Parameters' data

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Video Game Training

Recent Resaerches show that the patient treatment process can be much more faster using joyfull video games. Best Balance features several good and easy video games which you can play them by moving your center of pressure.





Result Comparision and Analysis

It is possible to compare the curves and

the values of several tests simultaneously on the computer screen.

The system shows the values of the variables obtained for each test/subject and their differences.

their differences.
This test shows a patient improvement in lowering his/hers body movement while standing still on the plate through six treatment sessions.

Sample Rate	100 Hz
1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 -	1999 610
Maximum Weight	200 Kg
Force -Plate Dimensions	h = 56 cm - I = 64 cm
Weight Resolution	100 gr - 50 gr
Baud Rate	28 KB/S
Center of Pressure Calculation Accuracy	1 mm
Weight	6 Kg
Operating Temperature	-5°C ~+ 40°C
Input Power Voltage	220 V
Operating System	Windows 7

Body Link Model Measurment via Camera

Camera and Movement Censors for Patients Body Link Model Diagnosis

Graphical Games with Body Link Model

The Ability to save Body Link Model through the



BEST BALANCE



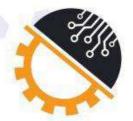
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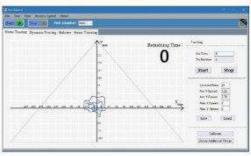
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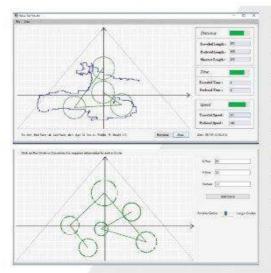
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Biofeedback Training (Dynamic)

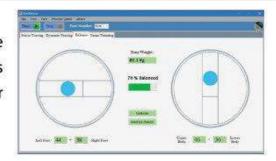
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Dynamic tests' features

- · Custom test Creation
- · Predefined Tests based on best practices
- The ability to save and load each test and its Balance Parameters' data

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