

ROBOTHERAPIST 3D



1. Description of the product

RoboTherapist3D is a complete system designed to the neurorehabilitation of upper extremities. It is based on a modular dispositive that allows the adaptation of the patient to the necessary therapy by doing some activities programmed in its software.

2. Characteristics

Simulation of diary activities

RoboTherapist3D has an immersive virtual reality system that helps the patients to relearn diary tasks such as drinking, eating, combing their hair etc. They are easy tasks that stimulate patients and help them with the rehabilitation process. The exercises could take place in seating or lying position.



Pneumatic actuation

There are two robotic arms with this type of actuation. One arm catches the hand of the patient and the other one holds him by the arm, as a physiotherapist does normally. The pneumatic actuation provides the system with an intrinsic security degree.



Modularity and suitability

Thanks to its final interchangeable schedule it is possible to personalize the rehabilitation of patient's arm. Each pathology needs of a final actuator coupled in one of the arms of the system.

Besides, as we can work both in seating and lying position, **RoboTherapist3D** is suitable for the first stages of the rehab that take part on the hospital and for the next stages when the patient still needs some periods of therapy.

Controlled force

The robotic system knows for each moment the forces performed, thanks in part of the pneumatic actuation. It is also a vital point for security.

Innovative Technology

It represents an innovation in the field of **robotic rehabilitation for the upper limbs**.

Technical Specifications

- Size: 2mx0.6mx2m
- Weigh: 150kg
- Supply voltage: 220V-230V/2A/50Hz
- Comprised-air supply: 11-12 bar

Safety

- Class II, Type B
- Indirect contact protection
- Grounded system
- Differential switch (25A, 30mA)
- Short-circuit protection
- Magneto thermic (10A)
- Emergency stop system
- Pneumatic actuators intrinsically safe

Advantages

- Quick rehabilitation in both seating and supine position
- Improve the benefits of the therapy
- Wide working range in 3D
- Virtual reality space which motivates patients with exercises by playing games
- Different levels of difficulty
- Broad and personalized reports for each patient, showing their progress during the process.

