

-COGNI

Multisensory therapeutic device

Interactive system for cognitive rehabilitation

Innovative rehabilitation device designed to facilitate efficient and targeted therapy across various motor functions.



The system performs the following activities:

- Analysis of motor deficits
- Analysis of orthopedic and neurological dysfunctions
- Analysis of the effectiveness of use of orthoses
- Optimization of movement for patients with motor deficits and athletes
- Active, repeated exercises influence neural plasticity to regain lost functionality,
- Afferent and efferent stimulation to support brain reorganization,
- Bilateral work supports the work of both hemispheres,
- Tailored solution for upper extremity rehabilitation

- Wide spectrum of neurological and musculoskeletal conditions
- Advanced biofeedback mechanisms for real-time movement analysis
- Precise monitoring and adjustment of therapy exercises
- Virtual reality supporting patient motivation and faster therapeutic progress.

X-cogni is an active therapeutic device for motor re-education of upper extremities, eye-hand coordination and cognitive disorders training.

Tests to evaluate patient's capabilities and prepare individual training:

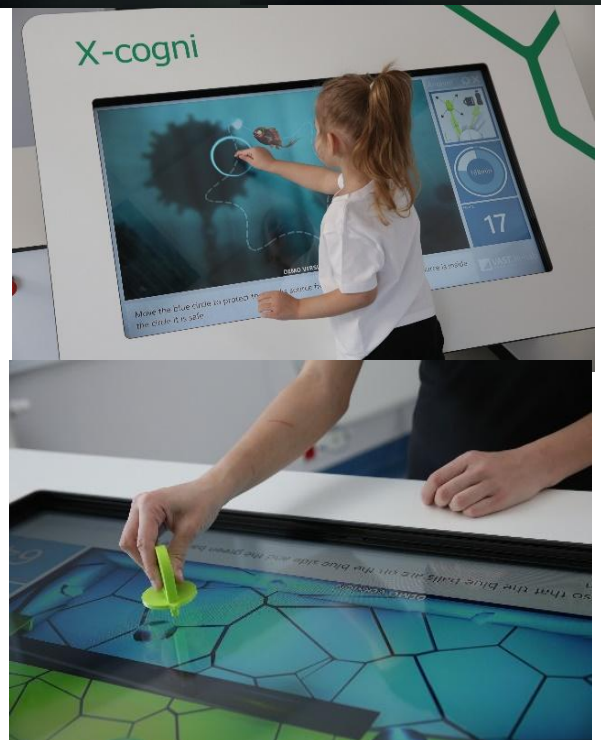
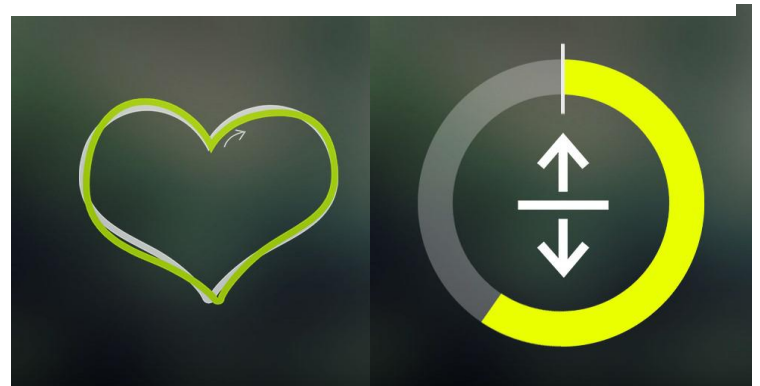
- GOnoGo
- strength test
- precision test
- dynamic test

Effective training of:

- movement precision,
- functional movements,
- divided attention,
- memory
- problem solving

Adjustability:

- Customizable settings to accommodate individual patient needs
- Variable resistance levels and difficulty settings for progressive



rehabilitation

The system includes a sensor-based screen for rehabilitation exercises with various therapeutic applications. Rehabilitation exercises stimulate the cognitive skills of patients of all age groups with orthopedic and neurological impairments. The goal is to improve the motor functions of the upper limbs, as well as concentration, memory, and precise movements in the wrist and fingers. Additionally, the system should encourage the use of both hands and practice all types of grips.


Purpose of the device:

- The device enables tracking and quantification of patient progress
- The device is applicable to patients with partial loss of motor and cognitive skills as a result of multiple sclerosis, cerebral palsy, and other conditions
- The main focus of the X-Cogni system is on interactive work with real objects, force control, and sensor applications
- The device is used for therapy across different categories of therapeutic applications, which cover individuals with deficits in concentration, selective attention, motor functions, visual-spatial perception, and spatial-perceptual abilities.

Compatibility:

- Seamless integration with therapy software and options of electronic health record (HER, HL7) systems
- Connectivity options for data sharing and remote monitoring

Safety Features:

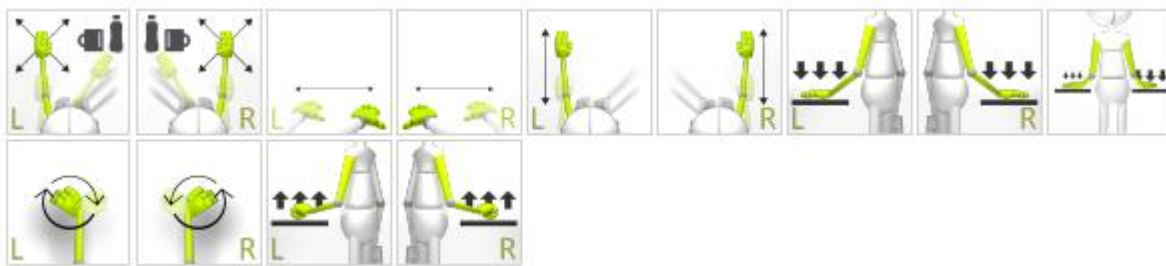
- Emergency stop functionality for immediate cessation of exercises
 - User-friendly interfaces with clear safety instructions
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Mobility and Portability:

- Compact and mobile designs for easy relocation within therapy spaces
- Lightweight components for versatile use across different treatment areas

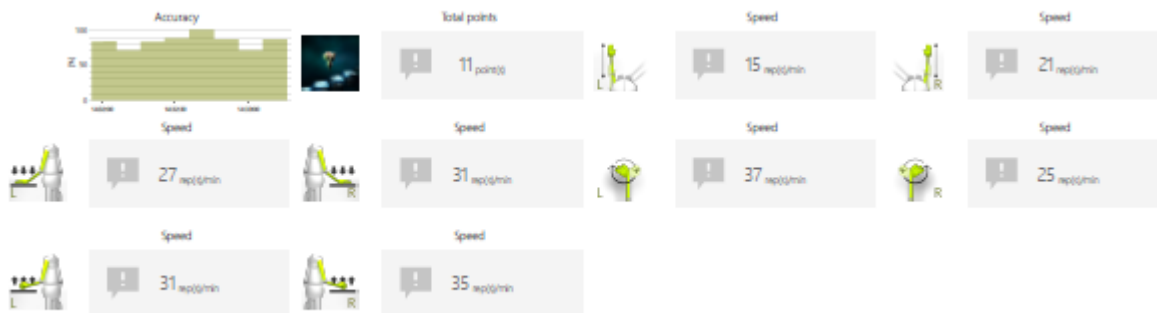
Training Programs:

- Pre-set therapy programs targeting various motor functions
- Custom program creation for individualized patient rehabilitation plans



Monitoring and Analytics:

- Built-in analytics for tracking patient progress over time
- Performance metrics to assess improvements and adjust therapy plans



User Support:

- Comprehensive user manuals and training resources for therapists
- Continuous training and technical support

ACCESSORIES :**TECHNICAL DATA:**

- Adjustable height of the device (675-1325 mm)
- Work surface can be tilted from 0 to 90 degrees
- Maximum tilting speed of 13 mm to 16 mm / second
- The set of the device includes an interactive display, specialized software, a specialized mouse, and USB jacks
- Dimensions of the table top: overall width: 1660 mm; overall depth: 890 mm
- Monitor: width - 42 inches
- Range of screen center from 0 to 300
- Height of the horizontal screen: 1325 mm
- Height of the vertical screen: 1772 mm
- Maximum drive power: 500 N (push/pull); measurement range: pressure mass horizontal
- Pressure mass vertical: screen center from 0 to 200N,
- Traction (mass horizontal or vertical): screen center from 0 to 50N;
- Supply voltage: 110 - 240 V
- Power frequency: 50 - 60 Hz
- Power consumption: 5 - 2,5 A / 540 W
- Weight: 236 kg
- Protection against the ingress of liquids: IP20