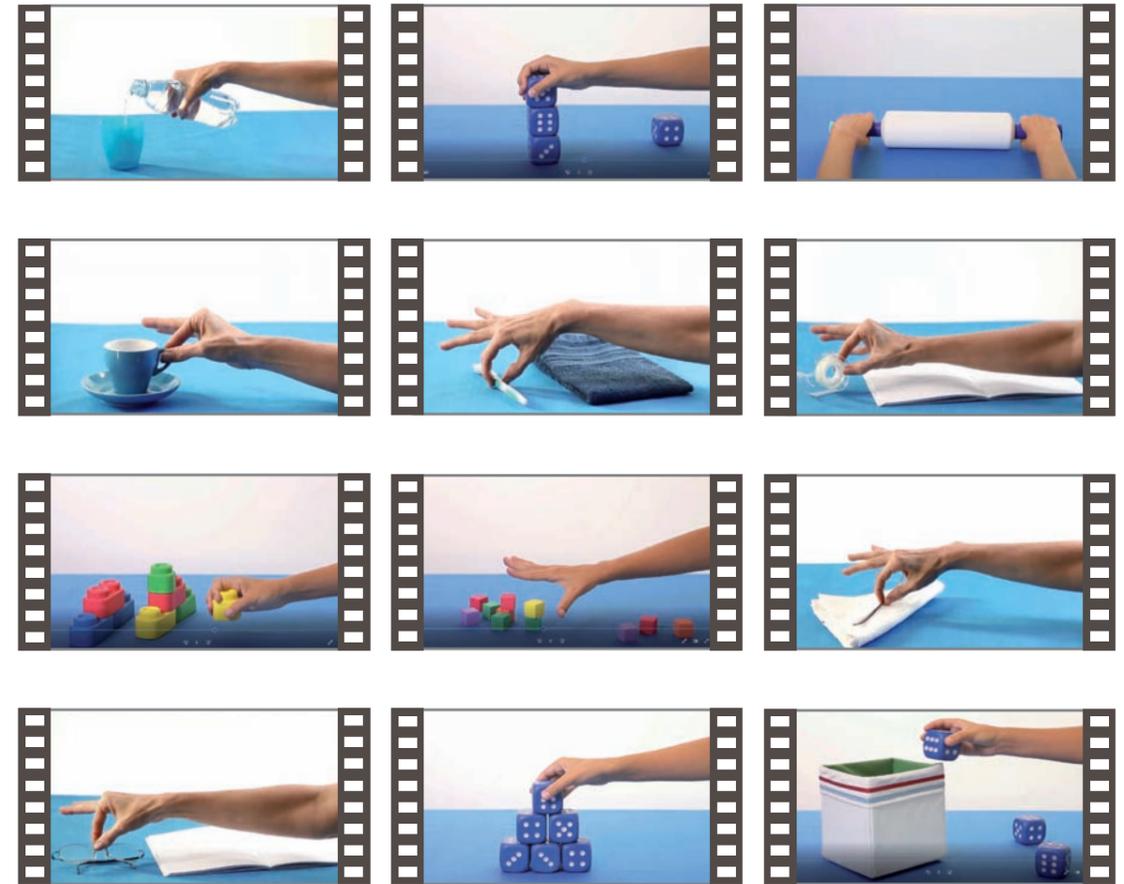# ACTION OBSERVATION THERAPY

Gloreha allows the execution of exercises based on the logic of the Action Observation Therapy, that provides training characterized by two steps:
OBSERVATION - first the patient observes a motor task on the screen

EXECUTION - once the visual preview ends, the rehabilitation glove supports the performance of the specific motor exercise.
The help provided by the device is calibrated based on the patient's abilities.

THE OBSERVATION OF A MOTOR TASK ACTIVATES MIRROR NEURONS

Action Observation Therapy (AOT) and Motor Imagery are novel rehabilitation approaches applied to patients affected by hemiplegia, hemiparesis, Parkinson's disease, cerebral palsy, and even to post-surgical orthopedic patients. The scientific basis of such approaches is the neurophysiological mechanism of mirror neurons: studies confirmed that the imagination of a movement and the observation of actions performed by others activate the same neural structures engaged in the actual execution of those movements.

Scientific literature shows that imitation of observed tasks leads to a re-organization of the primary motor cortex: intact cortical networks reinforce and the damaged ones are activated. AOT can prevent the changes in the cortical re-organization that occur after inactivity and disuse.

- The software includes a wide range of videos available: from single articular movements to more complex actions such as functional grasps of real objects
- The therapist can choose the number of repetitions of a video: the phase of observation of the task, depending on the settings, can last a few seconds or minutes; then the software automatically starts the motor exercise phase
- New video previews can be easily uploaded by the therapist, stimulating the patient to train with objects belonging to his daily life
- A customizable voice guide can introduce each video to explain to the patient how the therapy will take place