Title (provisorio): Development of rehabilitative exercises with Kinect and Leap Motion and testing on healthy subjects in order to evaluate the usability

Relatore/i: Dellepiane Silvana

E-mail: Silvana.Dellepiane@unige.it

Indirizzo:

Tel.: (+39) 010 33 52754

Description

Motivation and field of application
The main objective of the project is to transform the patient's home in a place where physical and cognitive rehabilitation processes can be performed in a safe and comfortable way. The patient will not only be in contact with experts in the rehabilitation centre providing guidance and feedback, but will also enjoy the participation in the rehabilitation program, to increase inclusion and motivation.

Objectives general and main activities
Study and development of rehabilitative exercises executable with Microsoft Kinect and Leap Motion. In particular, a deep study of exercises that will be reproduce remotely at home without the direct therapist support. The second step will be consisting of the transformation of the physical exercise in a "rehabilitative exercise" guided by Kinect or Leap Motion. The last phase will be the analysis of the usability of the exercises developed with a protocol test on healthy subjects.

Objectives of learning (technical tools and analytical methods, experimental methodologies)
- Study of rehabilitative exercises with expert therapist
- Development of innovative exercises and evaluation of usability
- Conducting experiments with healthy subjects

Location where the work will take place: DITEN

Additional information

Skills and capabilities required: Good level of programming

Maximum number of students: 2