Kinect integration into a biofeedback system for children under rehabilitation.

Background

This project is done in collaboration with the German Heart Center and Sony. The goal of the project is to research and develop systems that help children with heart disorders to recover physical fitness after having an operative treatment. The system uses electronic games to help motivate the children to perform exercise. Playing games will cause the children to perform moves that are supporting the rehabilitation process. The patients' physical engagement is measured by biomedical sensors and used for controlling the intensity and frequency of moves that are stressed by playing the game.

Description

The objective of this project is to use Kinect together with the windows SDK development framework for the detection of body movement and posture. This information will be integrated into the biofeedback system together with the data obtained from different sensors. Programming skills are required, experience in 3d and Qt is advisable.

This project is to be developed at the Experimental Heart Surgery Lab of the German Heart Center. (Lazarettstr. 62)

References

- German Heart Center: http://www.dhm.mhn.de/