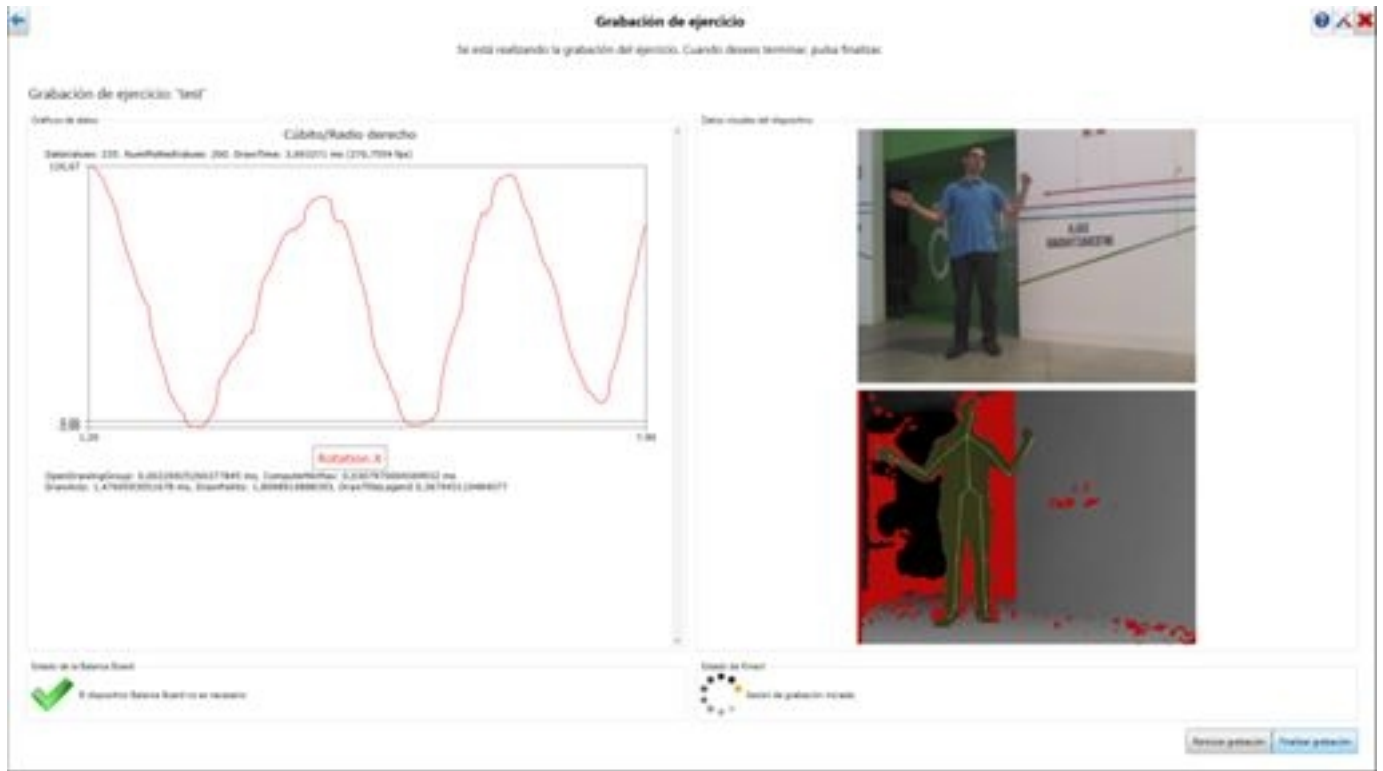


TEMIS Kinect Application

In the next figure we can see the capture of movement of a specific joint based on the Kinect, where the user is placed in front of the Kinect. Two images are represented on the right side, the upper one contains the image taken by the RGB camera and the lower one contains the depth image obtained thanks to the Infrared Emissor/Receiver with the recognised skeleton superimposed. On the left side the joint angular of the right elbow joint over the time is shown.



The architecture of the subsystem based on the Kinect is composed by a Kinect connected to a PC, providing raw data about joints and their positions (angular and linear movements) along the time, such as joints angles, joints angular speed, joints angular acceleration, 3D Joints positions, 3D Joints linear speed and 3D Joints linear acceleration. Afterwards a module processes the obtained signal (filtering and conditioning of the captured signal). This series of data are provided to the TEMIS platform where they can be visualised and also analysed to obtain movement patterns of the persons and to compare them with previously defined behaviour patterns. This can be seen in the figure below:

