

Research program:
“Tools for 3D modelling and simulation of the human body and motion capture for virtual ergonomics in industrial and bio-medical applications”

Annex C

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Research project

The program is divided in several phases, starting with the updating of the state of the art of motion capture (Mocap) systems and of commercial and academic tools for digital human modeling (DHM). The project is aimed at creating, in the following phases, the development of an integrated solution relying on markerless optical techniques and, eventually, on inertial sensors to be applied on industry and medical field. The research outcomes will increase the level of automatization, repeatability and reliability of the analyses of the scenes acquired. Such scenes may be focused on a task to be accomplished on the shop floor, or on the gait of a patient with an artificial leg. To this aim, existing solution will be considered (both commercial and developed in house) and a new software module will be developed to elaborate data in order to automatically identify issues and deviations from the standard way of performing tasks.