

VIRTUAL REALITY PUZZLE GAME FOR MUSCULOSKELETAL DISORDERS PREVENTION

Maria Sisto *et al.*

Haute Ecole Arc ingénierie, HES-SO

Contact: stephane.gobron@he-arc.ch



Musculoskeletal disorders are one of the big public health problems nowadays. Solutions are sought through ergonomic changes in the work environment and advice given to workers on how to protect themselves. Virtual Reality and motion tracking can be powerful tools to enhance the training given to the workers, combining these new technologies into a Serious Game. Inspired by real work situations, the game intends to teach the user to reproduce movements and postures commonly encountered while working. The game in itself is a puzzle game, where the user has to align gears correctly in order to make the system rotate. To complete a level, the user must solve the puzzle while maintaining correct positions and postures. This should show the user the danger some incorrect behaviours represent and help him change them while staying entertained and motivated.