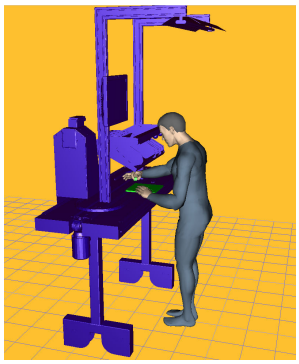
Master Thesis Proposal

Visualization of physical load evaluation with Augmented Reality or a Digital Human Model.

For early stage workstation and line design, TNO uses a system called Ergomix. Ergomix is mixed reality; a real life worker can be mixed into a digital environment.

With technical progress, new ambulant measurement systems come to market; for example the X-sense motion capturing suit with small inertial sensors. A great challenge in our opinion is to combine this new form of technology, with design tools (Ergomix) and guidelines to assess physical load. One of the most important issues is to visualize the results in an innovative and convictive way.



The purpose of this thesis is to create a real-time visualization of the outcome of a physical load evaluation (e.g. by an adding an AR layer to video data or a flexible Digital Human Model that changes segment colors depending on the risk evaluation). The software module has to be flexible for future changes and adjustable for full body or limited segment evaluation.

TNO is looking for a student with:

- … Good programming skills to create visualizations
- … A background in: e.g. Gaming, Multimedia, Information or Computer science
- … A flexible and practical mindset

In a nutshell: We are looking for some one who likes a practical challenge for research and consultancy purposes!

Are you interested in this thesis or want more information? Feel free to contact us.

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