

High impact solution

Novel Cobot Solutions for Automated Production: GE Healthcare

Business need

Collaborative robots (cobots) are currently expensive and installed statically on a single workstation, reducing their viability as an investment. GE wanted to explore new approaches for increasing cobot versatility and utilisation rate in production.

Solution

- Brainstorm on a cobot concept that can switch workstations as well as grippers and manipulators, based on production and task context
- Design and pilot a standardised physical interface and mobile robots in executing cobot workstation switches (docking/undocking)
- Design and pilot a physical interface for YuMi cobot gripper/manipulator switching
- Design and pilot a neural network-based cobot work tracking solution towards autonomous error recovery



Impact

- Cobots are applicable for a variety of tasks and workstations, increasing their versatility and utilisation rate
- Cobot investments appear more feasible and feature shorter ROI due to new functionality
- Increase in productivity compared to static cobot deployment setting
- More flexible distribution of tasks between cobots and human workers, enabling shifting of human work towards higher fidelity grades

Outlook

GE Vallila factory is committed to both mobile robot and cobot development and piloting in their digitalisation roadmap. When possible, new solutions will also be offered to other GE sites globally.