NORCAR-BSB EESTI AS

EU48685 Smart manufacturing and material technologies competence centre

Applied research: Automated stock solution for robot-cell service (sub-project PR2.3)

Period of the sub-project: 01.09.15.-31.12.18.

Amount of support: 109860 EUR

Description of the sub-project
For enabling flexible manufacturing in a robot-based complex, it is important to explore the possibility of automating the loading process (point-welded (or other type) products, sub-assembly products, jigs and fixtures, tools, etc.) using automated stock systems.
Since the production volume, the size of the lots and the floor space are limiting factors, the stock system must be built in such a way that the needs of SMEs are taken into account while ensuring the flexibility of production. Depending on product types, processes and tools that need to be deployed, multiple stock solutions must be developed and verified.

The objective and result of the sub-project
The main objective of the sub-project is to develop automated stock solution for servicing robot-cell with products to be assembled, jigs/fixtures and tools needed for production process. The main goal is to give SMEs fast, cost-effective and reliable solution to support reconfigurable manufacturing.
The result of the sub-project is developed and tested automated stock solution for servicing robot-cell that includes, among others:
- HMI (kasutajaliidese) development;
- Selection of the camera for object recognition;
- Robot selection (selection methodology for stock robot);
- Overall process optimization.

Supporting fund: EU Regional Development Fund
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