CoboSort

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A project by

eit Manufacturing

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Sustainable garment market with intelligent sorting, promoting eco-friendly business models

circular and green actions

machine learning models

collaborative robotic induction system

Project consortium

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Summary

The fashion industry is undergoing a disruptive shift towards sustainability and circular economy, needing a more flexible supply chain for managing product takeback, with robotic induction systems emerging to automate garment sorting, albeit facing challenges in handling item variability and unexpected conditions.

The CoboSort project aims to push the garment market toward a sustainable economy by means of circular and green actions enabled by the adoption of intelligent systems for effective management of new, returned or used clothing.

Nowadays the sorting actions required to manage re/placing of garments involve teams of operators for sorting operations, that are repetitive, wearing and not motivating for the innate capabilities of human. Adoption of a collaborative robotic assistant, mixing of vision sensors, grippers and artificial intelligence could be a feasible alternative.
CoboSort focuses on the development of machine learning models and robot grippers, as well as their integration within a reliable and inclusive collaborative robotic induction system that enable sorting of full/partially/not packaged pieces of clothes.

The proposed solution has an impact on the spread of used item in fashion market opening for a more affordable business models with a limited environmental footprint.

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