MANUVISED

ROBOTWIN
MOTION IMITATING ROBOTICS

CHALLENGES

One of the big challenges in our work is to provide the right guidance to the users of our solution and to make their user experience smooth. We are bringing a tool meant to empower ordinary users, workers, operators, to make robots move and do the heavy, demanding job for them.

And it needs to be accessible to everyone. In order to address this challenge, we focused on human centered design to make our product as easy to use as possible. We followed some principles presented in the workshops and provided materials. And we also made use of the iterative testing cycles with industrial partners during the application experiment.

THE SOLUTION

Manuvised is ambitious to exceed the state-of-the-art of industrial automation with the help of human centric digitalization. It is a system able to automatically generate robot programs and to control industrial robots in manufacturing. Manuvised learns from human demonstrations, allows workers to supervise it and takes in feedback from this supervision to immediately correct imperfections and learn from it in long-term. Manuvised changes manual routine work into collaborative automation.

RoboTwin is a start-up that focuses on industrial automation for manufacturing companies. Together with EARASHI project, we had been developing our Manuvised technology. Manuvised is a solution for manufacturing companies that need to automate but that are struggling with the classical way of automation. We are using advanced technology to generate robot programs autonomously, however, we still keep the human in the centre of the process.

There is a strong trend to automate the manufacturing industry and investments into automation are ongoing. Classical automation works well for big producers with large series of products. However, it reaches its limit by smaller series, specialized industries and SMEs. These cannot afford replacing manual workers with robot programmers who cost about two times more, who lack the knowledge of the specialized production technology and therefore need too much time and resources to fine tune the robotic programs.

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RESULTS

Together with our project partner Ikerlan, their Robot control building block, and other partners of EARASHI, we were able to create a solution for no-code robotization that is acceptable not only by the big corporations but also by SMEs and small manufacturers. Our application experiment Manuvised proved that we can make robotization easy, flexible and accessible even for smaller manufacturers.

We had the chance to collect feedback from users in the industry and shape the product the right way.

IMPACT

At the end, we have seen our technology help to introduce into robotics even workers who had no prior experience with it and who were facing an entry barrier. We also observed our tool becoming a communication tool for the workers – instead of describing verbally their know-how and how would they do a certain manufacturing operation, they can demonstrate it into a movement recorded by our device and so capture the essence of their skill.

For us as the startup, technology provider, it was essential that we could participate in EARASHI and focus on this iterative development and validation process and work with end users. It made us again one step closer to our vision – to make automation accessible to anyone.

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EARASHI

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