



AUTOMATING COMPLEX MANUAL OPERATIONS

#complex operation automatisation #advanced robotics processes
#innovative processes #production engineering

Groupe Bouhyer followed the example of many industrial key players and decided to technologically transform its processes. This especially concerned some typically manual operations, such as sanding, which is known to be difficult and a potential source of repetitive strain injury (RSI). But automating these finishing operations is complex and involves mastering many skills. This French foundry worked with engineers from Capacités and received a global support throughout the automating process; they considered business constraints and aimed for improved technical performance as well as (Return On Invest) economic viability.

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THE MULTI-SKILL PROCESS APPROACH IN ITS REAL CONTEXT

Groupe Bouhyer manufactures cast parts that are manually sanded during the finishing process. They wanted to automate this difficult operation that has a heightened risk of repetitive strain injury for its workers. Capacités' engineers helped them to analyze the need and to establish detailed specifications. Then they worked together to set up the project of robotizing the operation.

Capacités' experts participated in writing the complete specifications, and they also provided support while consulting with the team that implemented the solutions. The experts objectively evaluated and compared the different responses in terms of technical solutions and ROI. Groupe Bouhyer can use this information to select a robotic cell that perfectly fit the needs.

Project carried out for:



Linked expertises:

- Mechanical engineering
- Production engineering
- Robotics and automatisaton
- Industrial Data

First, the engineers assessed the entire process including the finishing operation. Then they analyzed several technical solutions that were available on the market and tested them on actual parts. They recommended the best solution and included a study on managing the shop to optimize flows.

To successfully complete this project, the Capacités' experts benefited from support and technical equipment from the LS2N laboratory (Digital Sciences Laboratory), joint research unit of Nantes Université, Centrale Nantes engineering school, Inria, IMT Atlantique and CNRS. ■

CAPACITÉS SAS :

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