ARTIN

DESO DEV

DESO

CASE STUDY

AI FOR PREDICTIVE MAINTENANCE OF TINTING MACHINES

A software maker for the paint industry – DESO supplies software that controls paint tinting machines in DIY stores across Europe and integrates equipment from different manufacturers into a single system.

We developed a set of AI tools in Python for DESO that predicts tinting machine failures before they happen, optimizes how the fleet is distributed across stores and, thanks to an intelligent service assistant, significantly reduces the experience operators need.

CHALLENGE

Tinting machines used to be repaired only after a breakdown – clogged nozzles, dried paint in the canisters or worn bearings caused unplanned downtime right in the store. Technicians logged their interventions only briefly, with no context on why the failure happened, so systematic root-cause analysis was practically impossible. DESO also needed better use of its fleet of machines with different capacities – busy stores had queues, while elsewhere machines sat idle.

SOLUTION

- **Predictive maintenance:** An AI model analyzes machine logs in real time and recognizes patterns that precede failures – it flags the need to replace a part before the machine goes down
- **Fleet optimization:** The system evaluates machine utilization across stores and recommends relocations so capacity matches real demand
- **Service assistant:** A smart chatbot in the portal lets technicians dictate service reports (even in the car between jobs), including the context of the repair – this data then makes the predictive models more accurate
- **Support for less experienced operators:** The assistant guides temporary staff and new employees in DIY stores, drawing on the collected documentation and know-how
- **Integration into the existing portal:** All AI components are part of the portal we developed for DESO in an earlier project – no switching between systems

TEAM SIZE

3 ARTIN people (AI lead, AI specialist, analyst) – following a team of 4 portal developers

TECHNOLOGIES

Python · Docker

WE'LL SHOW YOU HOW PREDICTIVE AI WORKS ON REAL OPERATIONAL DATA.