Case Study:

Optimising Proof of Concepts Through Collaborative Engineering



The Problem

A large OEM needed a solution to improve operational efficiency on their shop floor, using data captured from existing visual and audible equipment. The system had to record downtime reasons, duration, operator information and location, while providing supervisors with a live dashboard in a busy 24/7 operational environment.

With an ambitious three-week deadline, the customer needed a proof-of-concept that could be developed, built and delivered quickly, without compromising on functionality or cost.

The Solution

GTK brought RDS into the project to combine engineering, design, hardware and software expertise in developing an integrated solution.

Using existing stock alongside in-house engineering and manufacturing capabilities, the teams designed and built three hardware prototype sets in just seven days. These incorporated 3D-printed components, capacitive touch displays, custom cable assemblies, relay boards and mechanical assemblies, supported by bespoke software developed by RDS.

The prototypes were delivered ahead of schedule and within budget. A further lineside proof of concept was put into development to test the solution in real-world conditions and assess its potential for wider deployment.

Key Benefits

Cost Efficiencies

Using existing stock and cost-effective 3D printed components allowed us to develop three prototype sets within budget, with a cost roadmap to support future production volumes.

Time Saving

By combining GTK and RDS' expertise, prototype sets were delivered ahead of schedule, which helped the customer progress towards its proof of concept.

Business Advantage

Combined engineering, DFM and IMS capabilities created a tailored solution with a clear path from prototyping to scalable production, supporting real-world testing and potential wider rollout.

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