

**Project****Embedded software platform  
for industrial laundry  
machines**

An industrial laundry machine manufacturer developed a next-gen embedded software platform for laundry machines while cutting production costs by half.

## Twice the next-gen functionality with half the hardware

### Cutting down BOM to ensure competitiveness on the market

Proekspert's client is the world's number one supplier of professional laundry equipment measured by sales. They offer products and support under five brands in virtually every global market via their select network of distribution partners. They deliver leading performance through their exceptional team, unmatched quality, and commitment to innovation.

Product-cost management plays an increasing role in sustaining profitability and competitiveness. Our client's aim, while releasing their next-gen product, was to reduce the bill of materials (BOM) cost to ensure the final product would be competitive on the market.

The company sought a strategic partner to help improve and optimize the laundry machine control and logic board hardware, integrate a new processor, and upgrade software components. The requirement was for the next version to provide more value-adding features with modern UI and communications. Also, the solution was required to remain cost-effective to manufacture and customize for their customer's needs.

System reliability and a smooth end-user experience were the client's priorities, as well.

### Twice the software in half the hardware

Proekspert was trusted to find a solution to make the manufacture of the next-gen machine feasible from both technology- and cost points of view. We were charged with investigating (and later solving) techniques for reducing expenses on electronic boards without sacrificing the UX and digital functionality.

### Modularity means less development and configuration costs

Proekspert's engineers' method, when solving embedded software engineering challenges, is to approach through modularity and optimization for sustainable and future-proof solutions.

Proekspert rebuilt the core software logic and made it more efficient and modular so that, in the future, hundreds of different customized product versions could be built from the same software components. The result was a modular software product platform that would make the development of future products faster and more cost-efficient for our client.

### New display UI, new wireless comms

In addition to rebuilding the core logic of the laundry machine control system, Proekspert was tasked with rebuilding the machine display user interface and creating new wireless communications for controlling the laundry machine over WiFi and infrared. This would improve the overall user experience.

### Leading the market with development costs under control

Our client was able to launch its new generation product family, offering more features with a smaller BOM. Their product line's control board is now twice as cost-efficient to produce.

Thanks to the modular embedded software platform, our client can customize and configure products according to their customers' needs faster and more cost-efficiently. This positively affects the innovation and development costs of future models for their R&D department.

### Impact for the client's business

- The client can now provide customized products faster and more cost-efficiently.
- The product's electronic control board is twice as cost-efficient to produce.

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**Technology stack and competencies**

Product design and evaluation  
Next-gen product hardware concept modelling  
Embedded solution development