

Rapid Prototyping & Engineering for Precise Temperature Control

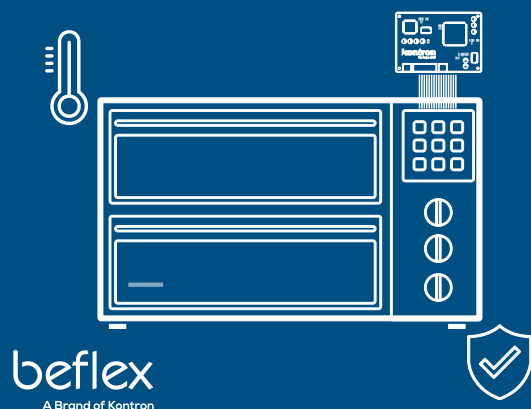
Challenge: The temperature control system needed modernization but faced major technical challenges and limited internal resources.

Solution

- › Rapid prototyping with fast turnaround and close co-engineering.
- › Iterative, data-driven improvements fixing thermal, EMC and sensor issues early.
- › Targeted engineering consulting including layout optimization and obsolescence strategy.

Outcome

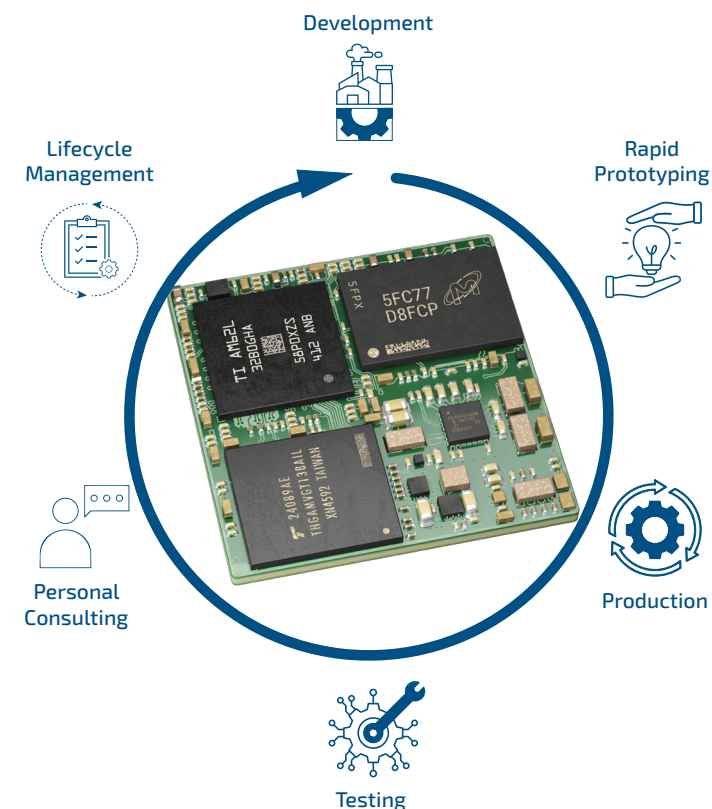
- › 8 weeks per loop faster time-to-market thanks to fewer redesign loops and quicker decisions.
- › Faster temperature-control response, improving stability, reliability, and energy efficiency.
- › Robust, market-ready product with higher quality and a more efficient development workflow.



Electronics Solutions from a Single Source

Our Solutions for Your Project

- › **Development:** Transforming concepts into complete designs
- › **Rapid Prototyping:** Fast samples, short development cycles
- › **European Manufacturing:** Certified, scalable, and reliable series production & box build
- › **Quality Assurance:** Every assembly is carefully inspected before delivery
- › **Sales Support:** We're here for you beyond product launch
- › **Custom Solutions:** Excellence across all industries



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Last-Minute Sensor Adjustment for Snack Vending Systems

Challenge: Two days before production, a key fill-level sensor became unavailable, requiring a footprint change.

Solution

- › Rapid footprint modification on the prototype PCB
- › Immediate sourcing of replacement components
- › Accelerated prototype build including SMT + manual adjustments
- › Targeted functional testing under real device conditions

Outcome

- › Fully functional prototypes delivered on time
- › Field testing started as planned
- › No redesign loop, no timeline impact
- › Customer decided to route future express prototypes through beflex

Robust HMI & Control Platform for High-Temperature Baking Systems

Challenge: Reliable operation under extreme heat and humidity is required, along with modern interaction and remote service.

Solution

- › 7"/10" capacitive touch display
- › CAN communication, digital I/Os, Ethernet
- › Audio feedback & data logging
- › USB software updates
- › Stainless-steel housing & custom cover glass

Outcome

- › Reliable performance in harsh environments
- › Intuitive, modern user interface
- › Faster maintenance & remote support
- › Modular, future-proof embedded platform

Scalable Embedded Platform for Next-Generation Coffee Machines

Challenge: A scalable electronics platform was required for multiple coffee machine variants, with unified software, heating control, and flexible I/O.

Solution

- › Customer-specific board with SoM SL i.MX8M
- › Modular IO & heating board incl. embedded software
- › Cross-device software platform
- › Linux application + HMI
- › EMS: Electronics manufacturing & display assembly

Outcome

- › Unified platform for multiple device series
- › Faster product development
- › Higher software & service quality
- › Modular architecture for future expansion

