MICROCONTROLLERS AND CONNECTIVITY

Next generation smart appliances

This transparent laundry machine demo shows how you can simplify the development of next-generation home appliances by using an integrated Infineon solution that combines edge AI and advanced motor control capabilities with our power products.

Benefits

- Faster time-to-market: A coordinated hardware, firmware, and ModusToolbox™ software ecosystem reduce integration effort from evaluation through implementation
- Lower system complexity: ML-based load classification uses motor information already available on the controller, avoiding an additional dedicated weight sensor
- Compact, efficient motor drives: CoolGaN™ IPS lowers losses and heat, enabling high-power-density inverter designs without heatsinks
- Responsive, privacy-conscious AI: Local processing delivers immediate interaction without depending on cloud inference

Highlight products

- PSOC™ Control C3 MCU
- CoolGaN™ Integrated Power Stages (IPS)
- CoolSET™ System in Package (SiP)
- PSOC™ E84 Edge AI MCU
- XENSIV™ 60 GHz radar sensor
- XENSIV™ MEMS PDM microphone
- XENSIV™ MEMS analog microphone
- AIROC™ Wi-Fi + Bluetooth® combos
- SEMPER™ NOR flash
- PSRAM – pseudostatic RAM

Applications

- Home appliances such as laundry machines
- PSOC™ Edge E84 MCU: Local voice commands and radar presence detection for intuitive, cloud-independent operation
- AI-powered load sensing: Our ML algorithm classifies laundry loads using speed and torque
- System approach: Integrated CoolGaN™ IPS and PSOC™ Control C3 enable easy, high-efficiency multi-motor control
- Next-generation sensing: PSOC™ 4 MCUs with CAPSENSE™ technology provide responsive hover touch and liquid detection with real-time HMI visualization
- Software ecosystem: ModusToolbox™ Motor Suite and DEEPCRAFT™ AI Suite enable faster development