EDGE AI

Multi-sensor robot platform with DEEPCRAFT™ AI

This demo showcases our domestic robot platform, highlighting a multitude of parts and features, including our edge AI software with DEEPCRAFT™ AI Suite, HMI, BLE remote control, motor control, XENSIV™ sensors, and CAPSENSE™ – all running on our MCUs. The 3D-printed mechanics allow quick alterations to and evaluation of our MCU, communication, power, and sensor devices.

Benefits

- End-to-end edge AI offering with DEEPCRAFT™ AI Suite (develop custom models, access production-ready solutions for fast time-to-market, or convert existing models to run on our MCUs)
- Offline, edge AI voice control for custom wake word and command recognition
- DEEPCRAFT™ AI on power-efficient PSOC™ Edge with AI acceleration
- Hands-free control
- Robust in noisy environments with DEEPCRAFT™ Audio Enhancement
- Showcasing a range of our products offering valuable features to customers
- Flexible platform for evaluation of many microcontroller, communication, power, and sensor devices

Highlight products

- Main control and GUI: PSOC™ EDGE
- Motor control: PSOC™ Control C3
- Motor driver: MOTIX™ IC, XENSIV™ sensor
- Communication: AIROC™ BLE
- XENSIV™ game controller
- XENSIV™ BGT60TR13C radar sensor
- XENSIV™ Sensor Shield
- PSOC™ 4, CAPSENSE™
- Voice control: DEEPCRAFT™ AI Suite, PSOC™ Edge E84 AI Kit

Applications

- Feature-rich domestic robot platform utilizing many of our products including high-accuracy AI models
- On-edge surface detection by radar to differentiate grass from most common non-grass surfaces (no perimeter wire needed)
- No damaged mower blades
- Robust against ambient light and low visibility
- Multiple sensors for evaluation of numerous functions
- Triple motor control with one MCU, driving two wheels and one blade simultaneously
- HMI for manual control and data visualization
- Voice command and BLE remote control

Scan for more information