ROBOTICS

Contextual awareness with XENSIV™ sensors

This robotic head platform demo combines our XENSIV™ 60 GHz radar, ToF camera, and magnetic position sensors with MCUs. Radars provide 360° environmental awareness, while the ToF camera enables depth sensing and tracking. The PSOC™ 6 MCU runs ML-based audio detection with an MEMS microphone, and a magnetic sensor with PSOC™ motor control enables precise movement.

Benefits

- Integrated sensing and control portfolio simplifying robotic system designs
- The 60 GHz radar enables reliable detection in all lighting conditions
- The ToF sensor delivers accurate depth sensing and object tracking
- The magnetic sensor provides high-accuracy, contactless position measurement
- PSOC™ 6 runs low-power ML inference for audio event detection

Highlight products

- XENSIV™ 60 GHz CMOS radar sensor
- REAL3™ time-of-flight sensor
- XENSIV™ MEMS microphone
- XENSIV™ magnetic position sensor
- PSOC™ Edge MCU
- PSOC™ Control MCU
- PSOC™ 6 MCU

Applications

- Service and hospitality robotics
- Companion and human-following robots
- Smart home automation
- Industrial inspection and monitoring
- Autonomous navigation and obstacle avoidance

Scan for more information