MotionEngine™ Robotics

As the world becomes more connected, automated robots allow for an extra layer of ease and efficiency at home and in industrial applications. And the key to those applications is precise heading. If a robot doesn't move where it's designed to, it can't perform it's tasks effectively.
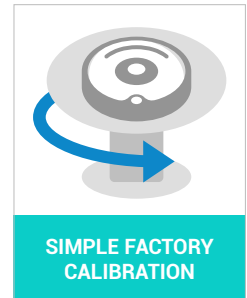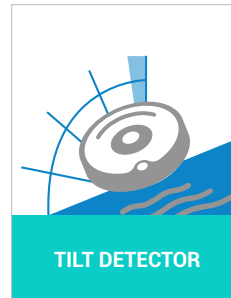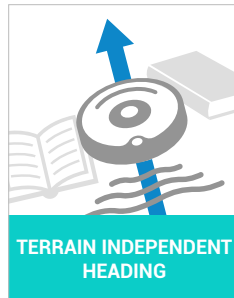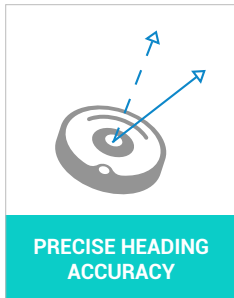
With robotic-specific algorithms like low-drift heading, Interactive Calibration, and Simple Calibration, CEVA's Robotics package gets the most out of consumer grade MEMS, from the factory to the kitchen floor. These specialized capabilities are available on our FSP200 Sensor Hub - with support for multiple 6-axis sensors - to promote flexibility in design, manufacturing, and BOM cost.

Motion Engine™ ROBOTICS

FEATURE HIGHLIGHTS

- ✓ MotionEngine™ 6-Axis Sensor Fusion – Provides raw, calibrated and fused sensor orientation data with best in class heading accuracy and stability

- ✓ Choose Your Sensor – Low-cost MEMS sensors from top sensor vendors are supported

- ✓ Improved Performance – Working with our specialized Interactive Calibration software, top performance is achieved even with low-cost sensors

- ✓ Intelligent Power Management – Manages sensor states to conserve power without sacrificing quality of motion data

- ✓ Dynamic Calibration – Our algorithms constantly monitor changes in sensor performance and temperature during live operation to deliver the highest performance

- ✓ Suitable for Android, Linux, and Embedded Designs – Driver example code available for ease of integration

- ✓ Firmware Upgradeable – Embedded bootloader enables factory and in-field firmware updates

- ✓ Simplified UART Interface – Requires NO configuration; simply outputs data on power-up

PRECISE HEADING ACCURACY

TERRAIN INDEPENDENT HEADING

TILT DETECTOR

SIMPLE FACTORY CALIBRATION

ABOUT CEVA

CEVA is the leading licensor of wireless connectivity and smart sensing technologies. We offer Digital Signal Processors, AI processors, wireless platforms and complementary software for sensor fusion, image enhancement, computer vision, voice input and artificial intelligence, all of which are key enabling technologies for a smarter, more connected world. We partner with semiconductor companies and OEMs worldwide to create power-efficient, intelligent and connected devices for a range of end markets, including mobile, consumer, automotive, robotics, industrial and IoT. Our ultra-low-power IPs include comprehensive platforms comprised of specialized DSPs coupled with an AI and other types of accelerators targeted for low power workloads, including 5G baseband processing, intelligent vision, voice recognition, physical layer processing and sensor fusion. We also offer high performance DSPs targeted for 5G RAN and Open RAN, Wi-Fi enterprise and residential access points, satellite communication and other multi-gigabit communications. Our portfolio also includes a wide range of application software optimized for our processors, including voice front-end processing and speech recognition, imaging and computer vision and sensor fusion. For sensor fusion, our Hillcrest Labs sensor processing technologies provide a broad range of sensor fusion software and inertial measurement unit ("IMU") solutions for AR/VR, robotics, remote controls and IoT. For wireless IoT, we offer the industry's most widely adopted IPs for Bluetooth (low energy and dual mode), Wi-Fi 4/5/6 (802.11n/ac/ax) and NB-IoT.