MotionEngine™ Wear

High Performance, Low Power Activity Tracking, and Context Awareness for Wearables

MotionEngine™ Wear software makes low power, context aware sensing possible in wearable devices. MotionEngine™ Wear connects to a variety of motion and environmental sensors, collects data and provides motion outputs. The software includes sophisticated signal processing algorithms to process sensor data and provides real-time 3D orientation and advanced contextual outputs. MotionEngine™ Wear includes sensor drivers developed by Hillcrest for a wide variety of sensors from different hardware vendors.

KEY BENEFITS

Enables New Applications in Wearables

High performance algorithms provide foundation for applications in wearables – better context awareness, more accurate pedestrian navigation, and improved gesture control

Flexible Software Architecture and Platform Support

Portable to a wide variety of platforms including ARM® Cortex-M, Cadence® Tensilica® Fusion DSP, Synopsys ARC® EM for maximum flexibility

Low Costs with Sensor Independence

Sensor independent for reduced integration complexity, increased flexibility and lower bill-of-materials cost

HIGHLIGHTS

- ✓ **Automatic Activity Tracking**
- ✓ **Intuitive Gesture Controls**
- ✓ **Precise Orientation and Compass Heading**
- ✓ **Sensor, System and Power Management**
- ✓ **Flexible and Modular Software Architecture**
- ✓ **Broad Sensor Category and Brand Support**
- ✓ **Low Power and Small Code Footprint**

MotionEngine™ Wear

KEY FEATURES

Automatic Activity Tracking –

detects if user is still, walking, running, on stairs, in a car or on a bicycle

Advanced Sleep Monitoring –

actigraphy based sleep state monitoring

Optimized Sensor Drivers –

improved sensor drivers provide better control of and data from included sensors

Intuitive Gesture Controls –

recognizes natural gestures such as shake, flip, glance and taps for device interaction

Flexible and Modular Software Architecture –

software can be delivered as an embedded library on a single-processor or as a chip executable on co-processor based platforms. Compatible with bare metal or OS based systems

Broad Sensor Category and Brand Support –

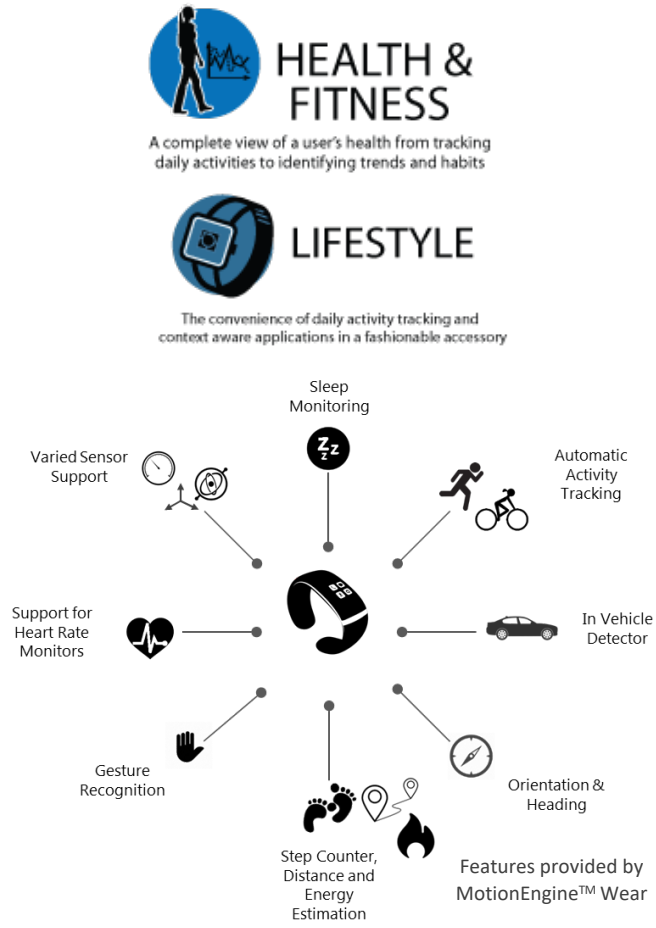
supports motion and environmental sensors from many leading sensor brands.

Support for Different Platforms –

easily portable to ARM® Cortex-M, Cadence® Tensilica® Fusion DSP, Synopsys ARC® EM and pre-built chip binaries available on with popular Cortex® M0+ and M4 processors from Atmel and STMicroelectronics

FOR MORE INFORMATION

SAMPLE MOTIONENGINE WEAR APPLICATIONS



TYPICAL CONFIGURATIONS