**Product Brief** 

## **MotionEngine™ Air**

As technology enables us to interact and connect with one another, isn't it time that our interfaces evolved as well? Combined with your choice of inertial sensor, Hillcrest Labs MotionEngine Air software adds precise motion-based pointing, 3D motion tracking, and gesture controls to existing interfaces.

These features open up new avenues of intuitive convenience to a variety of applications including smartphone and PC stylus pens, set-top box remote controls, game controllers, AR and VR controllers, and PC peripherals.



## FEATURE HIGHLIGHTS



Point and Click Control - Typically, devices require physical touch or some joystick- or direction-key-bound interface. But it's not always convenient to use those inputs (like if you want to control from afar) and key-based inputs can be slow and inefficient. Point and click controls allow users to command a cursor on screen effectively and efficiently by simply rotating their wrist. Imagine pointing and clicking on a screen with a handheld remote, flying through a menu without using directional keys, or watching a 3D model move perfectly in sync with your motions. And with advanced features like tremor cancellation and orientation compensation, our intuitive interface will track your motion flawlessly.





**Event Classification and Gesture Recognition** - Whatever controller device you're using, it undoubtedly is wireless and battery operated. And a key component of that is saving power and unlocking convenient functionality. For example, you can wake up a controller as it's being 'Picked Up', or put it in power-saving mode with 'Stability' detection. Or, imagine you're drawing with a stylus pen on a tablet or with a controller in VR. A simple 'Twist' could bring up a color wheel, or a 'Flip' could swap back to the last setting, speeding up your creative vision.





Flexibility in Execution - As a subset of our MotionEngine software solution, MotionEngine Air offers flexibility in how its unique features are utilized in a product design. If your product is accelerometer based, but you want to add Event Classification and Gesture Recognition to your interface, we can build it. If your 6-axis product lacks that special something to take it to the next level, our software can utilize your gyroscope and accelerometer data to add intuitive cursor control, virtual controls, and 3D motion tracking for gaming. MotionEngine Controllers is processor agnostic and designed for use with mainstream inertial sensors from leading sensor vendors. Our software is as flexible as our interface is dynamic.



## **ABOUT CEVA**

CEVA is the leading licensor of wireless connectivity and smart sensing technologies. We offer Digital Signal Processors, Al 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, 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 DSP-based platforms for 5G baseband processing in mobile and infrastructure, advanced imaging and computer vision for any camera-enabled device and audio/voice/speech and ultra-low power always-on/sensing applications for multiple IoT markets. For sensor fusion, our Hillcrest Labs sensor processing technologies provide a broad range of sensor fusion software and IMU solutions for AR/VR, robotics, remote controls, and IoT. For artificial intelligence, we offer a family of Al processors capable of handling the complete gamut of neural network workloads, on-device. 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.

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