

NanoCompass success enables Baolab to create MEMS inertial measurement units

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[Baolab Microsystems](#) [1] has said it expects to be able to modify the structures that it designed for its 3D NanoCompass to build a range of other motion sensors and, ultimately, to create low cost, smart, reconfigurable Inertial Measurement Units (IMUs). These NanoIMUs will use Baolab's patented, award winning NanoEMS technology to create nanoscale MEMS (Micro Electro Mechanical Systems) within the standard metal structure of a high volume manufactured CMOS wafer.

"We have designed ways to modify the structure that we developed for the 3D NanoCompass so that it can be used to create gyroscopes and accelerometers as well as magnetometers" explained Dave Doyle, Baolab's CEO. "As we have the ability to build combinations of these different types of sensors simultaneously on the same chip along with the associated electronics to provide control and intelligence, we will be able to create the product that the industry is wanting - multi-sensor IMUs that can be activated and configured dynamically as required by the application. The key is that our technology enables us to build MEMS using standard CMOS production techniques so we can make as many as we like of whatever mix of sensors that are required at the same time, integrated with the analog and digital electronics running fusion software to make them smart."

The traditional way of making MEMS sensors requires a different production process to make each type of sensor. Baolab's NanoEMS approach will enable the costs of making smart, multi-sensor IMUs to be slashed dramatically, accelerating the drive to provide ubiquitous multi-sensor awareness into almost any device for enhanced performance and features.

"We have proved that we have solved all the challenges of making MEMS within the CMOS wafer with our production of working 3D NanoCompasses," added Dave Doyle. "We will be introducing a series of nanosensor products as we work our way through the roadmap towards our goal of ultra low cost, smart, multi-sensor NanoIMUs."

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<http://www.ecnmag.com/news/2012/05/nanocompass-success-enables-baolab-create-mems-inertial-measurement-units>

Links:

[1] <http://www.baolab.com>