



## PRESS RELEASE

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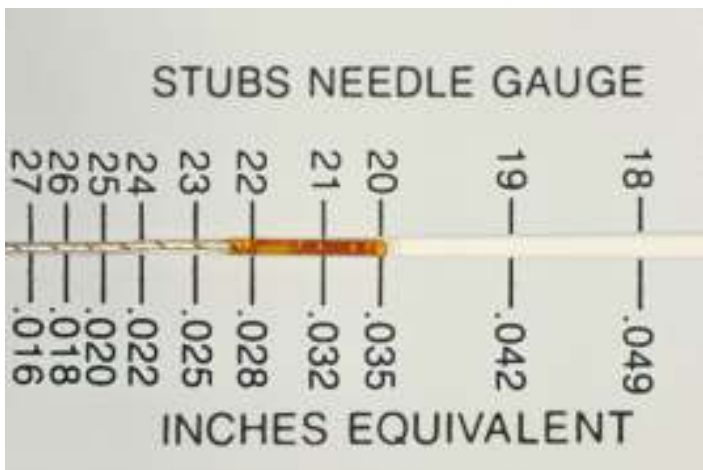
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# Ascension Develops World's Smallest Six Degrees-of-Freedom Sensor for Emerging Medical Procedures

**BURLINGTON, VERMONT; August 19, 2008:** Ascension Technology Corporation has shrunk the dimensions of its 3D Guidance medSAFE magnetic sensor without sacrificing tracking parameters. The outer diameter of its new sensor is 0.90 mm (0.035 inch), small enough to comfortably fit the hollow tube of a 19-gauge biopsy needle.

The new sensor passively senses pulsed DC magnetic fields generated by either a cubic transmitter or a flat transmitter and is available for easy integration and manufacturability by medical OEMs. Its first use is fast, accurate, and unobtrusive tracking of the distal tip of a needle deployed for soft tissue intervention.



Ascension's newest medSAFE sensor is 0.90 mm in diameter and weighs less than one-tenth gram. It freely fits into the tip of a hollow 19-gauge needle, which can be rapidly tracked in all six degrees of freedom. Besides monitoring needle and guide wire location, the new sensor with imaging software provides immediate feedback of a successful intervention without over reliance on X-rays.

The performance of the new sensor is unaffected by occlusions, composite materials, or the presence of common hospital metals, such as stainless steel (300 series), titanium, and aluminum. When used with Ascension's flat transmitter, it overcomes the distorting effects of underlying ferrous steel structures, contained in procedural tables and gurneys.

Before the introduction of Ascension's sensor, the miniaturization of magnetic sensors typically resulted in the loss of tracking of an instrument's roll angle. The new sensor cures that limitation while allowing navigation and guidance of tools with miniscule inner diameters. It is fully integrated with other medSAFE sensors for gating purposes, ensuring that needle placements occur only at opportune times in the organ motion or respiratory cycle.

Ascension Technology Corporation, based in Burlington, Vermont, USA, is a world leader in magnetic and optical tracking solutions for medical applications. For additional information about Ascension sensors in surgical navigation and minimally invasive procedures, visit [www.ascension-tech.com](http://www.ascension-tech.com) or contact Trish Scott at: 802-893-6657, ext. 34.

*Biomedical references and medical procedures described in this release are examples of what can be accomplished with tracking and imaging technology once users and have complied with all pertinent FDA/CE/IRB directions.*

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