

Breakthrough medical robot 'FreeHand' secures Innovation of the Year recognition

Sagentia is the prime development partner behind a new award winning medical device, the first product on the market to bring affordable robotic assistance to minimally invasive abdominal surgery.

Market research indicated that many surgeons are struggling increasingly to find dependable assistants to hold the camera during laparoscopic procedures. Even when quality assistance is available, long procedures are tiring, leading to camera shake, poor visualisation and even longer cases. Prosurgics' FreeHand, a second generation robotic camera holder, addresses and overcomes these problems.

Taking only moments to attach to the side of the operating table, the unit is controlled by the surgeon using gentle natural head movements, leaving the surgeon's hands free for instruments. Benefits to the surgeon include optimal visualisation and improved control over a critical aspect of the procedure. These benefits in turn convert into reduced procedure times and more efficient use of hospital resources.

Sagentia's input to this successful outcome has been considerable: we were appointed key development partner by Prosurgics in October 2007, with a brief to take an existing second generation prototype and

ensure that stringent specification requirements for performance, safety, size and ergonomics were all met. In conjunction with Sagentia, Prosurgics has developed a product that is more compact, easier to set up and use, and substantially more affordable than its predecessor.

FreeHand was launched at the European Association of Endoscopic Surgery earlier this year. Since launch, FreeHand has attracted great interest from surgeons worldwide and has been recognised by the Society of Laparoendoscopic Surgeons in the USA as a 2008 Innovation of the Year.



'Intelligent' shower wins Queen's Award

Sagentia has announced that Aqualisa – one of the UK's most successful shower manufacturers – has been awarded the Queen's Award for Innovation for the design, development and manufacture of digital showering technology. The award recognises more than a decade's research and investment by Aqualisa.

Sagentia worked with Aqualisa on the product development of the original digital shower, Quartz Digital. When launched in 2001, the shower heralded a new generation of digital showering and bathing products. Today, digital technology has established a new benchmark for sophistication and intelligence in the bathroom industry.

Sagentia's dual function pressure gauge development is a first for WIKA

Sagentia has developed a novel solution for WIKA that allows the display from an analogue measuring device to be converted into electrical signals.

For some time German pressure gauge manufacturer WIKA had been keen to incorporate electronic functionality into its range of mechanical gauges. Sagentia first undertook feasibility work to establish the most appropriate technology approach.

This was followed by a rapid development and prototyping stage that integrated the pre-existing mechanical gauge with PCB and case work. We also provided input into the development of a calibration rig which was subsequently used for full-scale automated production.

Our approach, involving a contactless sensor technology (patent pending), has now been incorporated into WIKA's recently launched LIG10

INTELLIGAUGE analogue pressure gauge. The non-contact sensor prevents any interference with the mechanism, maintaining the inherent high accuracy of the gauge and leading to maximum reliability and robustness. The breakthrough INTELLIGAUGE product gives WIKA's customers a unique solution which bridges the gap between the traditional analogue mechanical pressure gauge and solid state electronic sensors.