

A new era for surgery with real-time AI: Medtronic to unveil Touch Surgery™ Aide, the next-generation compute platform for the operating room at Society of Robotic Surgery 2026

Advanced compute power, built on NVIDIA infrastructure, enables real-time decision support during the procedure

FDA-cleared Instrument Exit Point (IEP), the first real-time AI application for robotic procedures from Medtronic, advances a precise, predictable, and personalized future for surgery

GALWAY, Ireland, July 21, 2026 [/PRNewswire/](#) -- Medtronic (NYSE: MDT), a global leader in healthcare technology, is presenting an early look at its next-generation compute platform for the operating room. Touch Surgery™ Aide — an AI-native surgical computing platform that powers the Touch Surgery™ ecosystem — enables real-time artificial intelligence during procedures. Touch Surgery™ Aide will be shared at the Society of Robotic Surgery (SRS) 2026 Annual Meeting in Florida, July 23-26.

Built on years of experience, the Touch Surgery™ ecosystem brings insights to surgery, in more than 1,500 operating rooms worldwide. It connects the entire surgical journey: bridging pre-operative planning and training, intra-operative tele-mentoring and tele-proctoring, and AI-powered post-operative insights, simplifying workflows and extending access beyond individual ORs.

Touch Surgery™ Aide expands the Touch Surgery™ ecosystem with next-generation computing capabilities, enabling multimodal AI-driven support during surgery. This provides surgeons with access to actionable insights during procedures, supports case review, and helps inform continuous improvement in clinical decision-making.

"Real-time AI marks a new frontier for healthcare — it is a fundamental evolution in how surgery is supported, moving from technology that assists the surgeon's hand to technology that helps teams work smarter, move faster, and deliver greater impact in the moment," **said Jim Peichel, Chief Technology Officer at Medtronic.**

Touch Surgery™ Aide incorporates NVIDIA's accelerated computing infrastructure, leveraging the company's Holoscan, CUDA, and TensorRT to deliver AI-powered insights in the moment, supporting surgical decision-making when it matters most. Touch Surgery™ Aide combines computer vision, multimodal AI, and accelerated inference to process surgical video and procedural context in real time. This enables multiple AI applications to run simultaneously during a live procedure, processing and acting on surgical data in the moment. It brings intelligent, increasingly automated support in the OR, and is designed to continuously learn and evolve.

Medtronic's first real-time AI application for robotic surgery

Instrument Exit Point (IEP) is an AI application that runs on Touch Surgery™ Aide, for use with the Hugo™ robotic-assisted surgery (RAS) system. It received U.S. Food and Drug Administration (FDA) clearance.

Using computer vision, IEP provides a visual notification when select instruments move beyond the visible field of view during a robotic procedure. As the first real-time AI application to run on Touch Surgery™ Aide, IEP represents an early step in bringing AI-enabled support into robotic surgery, with the platform designed to support expansion into laparoscopic surgery over time.

Medtronic continues to progress the capabilities of the Hugo™ robotic-assisted surgery (RAS) system. In December 2025, the Hugo™ RAS system received [FDA clearance](#) for use in urologic surgical procedures, bringing a versatile robotic-assisted platform to U.S. surgeons and health systems. In June 2026, Medtronic [announced](#) 510(k) submissions to expand the use of the Hugo™ RAS system into general and gynecologic specialties in the U.S. The Hugo™ RAS system continues to have a growing global impact and has been used in tens of thousands of procedures across more than 35 countries in six continents.

Transforming the future of surgery

This is an early step in a broader effort to bring AI into more of what happens in the operating room. Over time, Medtronic expects the platform to support a growing range of real-time AI applications, connect with other Medtronic technologies in the OR, and turn the data from every case into insights for surgical teams and the hospitals they work in.

"Surgery is on the cusp of a generational shift, powered by AI and advanced compute," said **George Murgatroyd, General Manager & Vice President, Digital Technologies** within the Surgical business at Medtronic. "The Touch Surgery™ ecosystem, powered by Touch Surgery™ Aide, establishes a platform for a new generation of embedded connectivity, seamlessly integrating advanced capabilities into surgical workflows and reinforcing Medtronic's commitment to delivering the best possible care, for every patient, anywhere."

About Medtronic

Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Galway, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission — to alleviate pain, restore health, and extend life — unites a global team of 95,000+ passionate people across more than 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic, visit www.Medtronic.com and follow Medtronic on [LinkedIn](#).

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