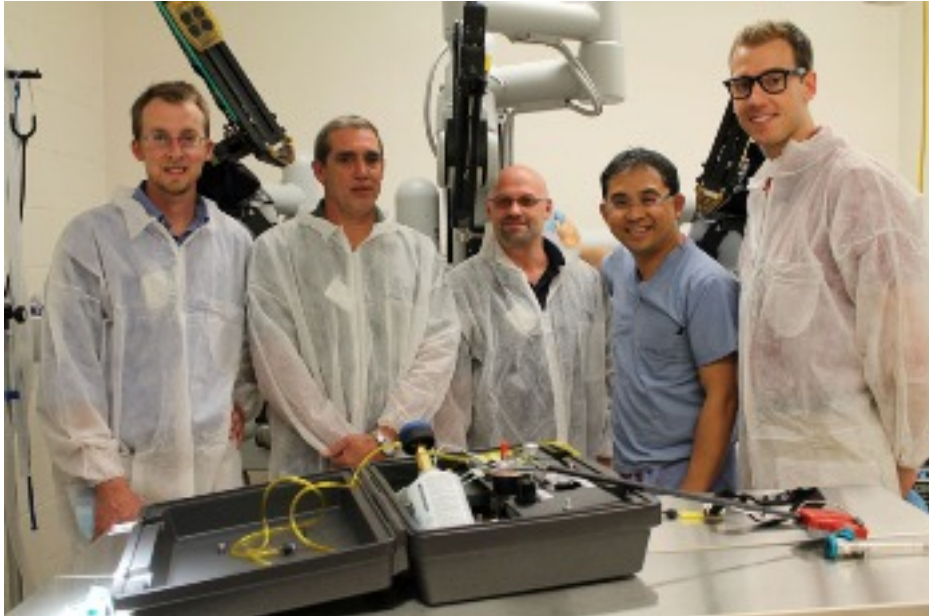


Surgeons Perform First-Ever 'Blindfolded' Simulated Robotic Procedure

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Surgeons at Boston Children's Hospital, using a new man-machine interface, were able to successfully perform simulated robotic surgical procedures using only their sense of touch.

Despite all of the advances in robotics, the ability to provide the operator of a robotic system with a sense of touch (haptics) still remains a significant problem. This is no more dramatically illustrated than in the use of robots in surgical procedures. Some of the world's most advanced minimally invasive surgical (MIS) robots still don't allow the surgeons who operate them to feel what they are doing through their robotic surrogates. As a result, these robotic systems are used to perform only a small fraction of their overall capability.

Cambridge Research & Development (CRD) has recently completed research on a new haptic robotic interface which provides an enhanced level of tactile feedback allowing robotic operators to perform operations previously problematic and dangerous. As a proof of capability, CRD, in cooperation with surgeons in the Department of Urology at Boston Children's Hospital, successfully simulated robotic surgical procedures using solely the surgeon's sense of touch.

"The development of haptic feedback is an essential milestone for robotic surgery. Surgeons will be able to truly feel the instruments as if their hands were in the operative field. Haptic feedback may help to reduce surgical errors and may allow for improved quality of surgery," says Boston Children's Hospital, Director of Robotic Surgery, Doctor Hiep T. Nguyen.

Scientific evolution in the area of man-machine interfaces opens up new capabilities for robotic operators in medicine, space, public safety, exploration, and remote

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vehicle operations.

"The robotics industry understands that the true potential of robotic and cybernetics lies in the ability of man and machine to meld," says Ken Steinberg, CEO of Cambridge Research & Development. "Full bio-compatibility is in our future but advancements have to be made now if we are truly going to realize the potential of our robotic counterparts. With this new haptic interface, we feel we are providing a solution which will lead to new and exciting capabilities from the surgery room to space."

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