

Brainlab Introduces Mobile Intraoperative Imaging Robot

The technology vastly increases the company's digital reach in spinal procedures

CHICAGO, September 25, 2019 — Brainlab, the digital medical technology company, unveiled Loop-X[™], the first mobile intraoperative imaging robot today at NASS 2019 in Chicago. Loop-X sits at the core of the Brainlab Digital Surgery portfolio for the rapidly evolving spinal market. Brainlab is leveraging its long history in 3D imaging and open integration to bring to market a new benchmark in automation and robotics helping surgeons provide advanced care while improving surgery for patients.

The Loop-X robotic architecture introduces a new standard in flexibility, adding additional degrees of freedom to any surgical procedure: By automating imaging workflow steps and robotically moving with the procedure and on command, the system is in sync with other devices like robotic arms and with the surgeon and staff. The non-isocentric movement and collimation capabilities allow for the imaging of structures that are much larger—for example in diameter—and much smaller—reducing radiation exposure—than what is possible with the typical CT or 3D C-arm. The highly integrated device is designed for 2D and 3D imaging, combining ultra-high resolution with extra-low doses, and proprietary technology to image with interlaced energies for soft-tissue visualization. Loop-X imaging robot can be integrated with Brainlab technology as well as third party products through an open interface, maximizing interoperability and data integration.

"For Brainlab, Loop-X is a critical milestone in contributing disruptive innovations in spinal surgery," said Stefan Vilsmeier, President and Chief Executive Officer, Brainlab. "It provides us with an even stronger foundation for leveraging emerging technologies such as AI, big data, cloud computing, augmented reality and spatial computing."

Part of the overarching Brainlab Digital Surgery portfolio, Loop-X imaging robot increases the depth and breadth of the company's offering and supports excellence in a broad range of surgical applications. Building on the broad utility of X-ray-based 2D and 3D imaging in the O.R., Brainlab aims to provide a surgery-centric digital platform for every surgery. Beyond diagnostic imaging, the intelligent device can capture partial information, "digitizing" anatomical intraoperative changes in order to update a "digital model" of the patient previously generated by aggregating pre-operative images.

Loop-X imaging robot has been developed by medPhoton in close partnership with Brainlab. Brainlab has co-funded development, strategically invested in the Salzburgbased company, and become the exclusive distributor of Loop-X imaging robot in surgery, underscoring the company's commitment to innovation. Both companies are fully dedicated to maximizing technological synergies for the ultimate benefit of surgeons and their patients and have agreed upon a path forward toward further deepening the collaboration and integrating their activities in the future.



Since the company's first 3D C-arm integration, Brainlab has been a pioneer in the field of intraoperative imaging. The Brainlab open framework supports the company's full range of imaging technologies, driving innovation and integration while ensuring that current customers will continue to reap benefits, in upgrades and software advancements, from their technology investments.

For more, visit brainlab.com/loop-X.

About Brainlab

Brainlab, headquartered in Munich, develops, manufactures and markets softwaredriven medical technology, enabling access to advanced, less invasive patient treatments.

Core products center on information-guided surgery, radiosurgery, precision radiation therapy, digital operating room integration, and information and knowledge exchange. Brainlab technology powers treatments in radiosurgery and radiotherapy as well as numerous surgical fields including neurosurgery, ENT, CMF, spine and trauma.

Privately held since its formation in Munich, Germany in 1989, Brainlab has more than 12,850 systems installed in over 100 countries. Brainlab employs almost 1,400 people in 18 offices worldwide, including more than 420 Research & Development engineers, who form a crucial part of the product development team.

Visit brainlab.com and like/follow the company here: Twitter; Facebook; Instagram; LinkedIn

About medPhoton

medPhoton develops and manufactures CE marked and FDA cleared medical devices for image guided procedures in radiation therapy, with a strong focus on particle therapy. Advanced product development centers on innovative, universal solutions for robotic, navigated applications in surgery, interventional radiology, brachytherapy and intraoperative radiation therapy (IORT). The company's core competencies and patented solutions with X-ray-based imaging chains and algorithms are being customized for system integrators in B2B partnerships worldwide. Founded in 2012 in Salzburg, medPhoton employs close to 50 people including physicists, mechanical and electrical engineers and software developers. The company is a spin-off of Paracelsus Medical University and the Salzburg public hospital (SALK).

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Disclaimer:

Loop-X mobile intraoperative imaging robot is currently under development and not FDA approved, nor commercially available. Brainlab is not soliciting or accepting orders for Loop-X mobile intraoperative imaging robot, nor is Brainlab attempting to market or solicit any orders. The information being provided is for informational purposes only. Commercial availability is contingent on the current development schedule, achieving certain performance according thereto, and approval by the appropriate regulatory agencies.