



Tomorrow's medical robot today



SMOOTH SAILING FROM THE GET-GO

Fast setup, and users get proficient with the system after only a few cases - while keeping their team from making changes to the usual workflow.



BUILT FOR SAFETY

Our class I medical device **decreases user radiation and patient radiation** thanks to its navigated alignment, misalignment detection capabilities and reduced need for control scans.



ALL-ENCOMPASSING TURNKEY SOLUTION

Micromate comprises a full-fledged portfolio that **supports most imaging modalities** and is compatible with every standard table and biopsy and ablation needles.



SPOT-ON, EVERY TIME

Our table-mounted robot and live-imaging features grant Micromate users **full-body accuracy**.



FAST AND ALL-AROUND

Our small robot grants the physician up close or 360° access (even inside the gantry) while **reducing intervention time**.



Micromate solves the four essential problems all medical robotics should tackle: ease of use, accuracy, consistency, and affordability.

Dr. Marco van Strijen
St. Antonius Hospital, the Netherlands

Seamless workflow integration with no missing features



SETUP

Seamlessly mount the robot to any standard table, load DICOM data, and automatically register in a few minutes.



INTRAOPERATIVE PLANNING

Use the pre- and intraoperative scans with a proprietary, intuitive software to accurately plan your single or multi-needle intervention without angular limitations.



ALIGNMENT

Accurately perform an automatic or joystick-controlled alignment to your planned trajectories within seconds with the help of navigation and live imaging.



INSTRUMENT INSERTION

Securely advance your instrument of choice. Lateral deviations after instrument insertion are signaled by the system, allowing for correction.

Movement Range

40 mm and 30° from center position
Pre-positioning with Positioning Arm with 7 DOF and 40cm range
The position on the table can be adjusted along the table's length

Clinical Accuracy

Average accuracy of alignment to the trajectory:
Average angular deviation to the trajectory:

Fluoroscopy guidance

0.43 ± 0.50 mm
0.79 ± 0.41°

Optical CT navigation

1.04 ± 0.60 mm
0.75 ± 0.47°

Maximum Load

Robot: Instruments up to 1kg without interruption of motion (halt at 40N)
Positioning Arm: 5 kg without slippage when fully extended

Compatible Image Modalities

Fluoroscopy, Cone-Beam CT, CT-Fluoroscopy and CT
Ultrasound under development

Planning and Navigation

Yes, using pre- and intraoperative scans
Optical navigation capabilities available, with disposable tracker and without the need for dynamic referencing

Integration into 3rd party navigation systems

Yes, through proprietary API

Guided Instruments

Instruments from 8-21G
US: cleared for instruments from 8-19G

Product Classification

EU: System according to article 22 of the Medical Device Regulation (MDR) regulation 2017/745
US: Class II, 510(k) cleared for CT Navigation



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