Nanomanipulation made easy.
Imina Technologies introduces the miBot: the world’s smallest commercial micromanipulator. With four degrees of freedom, this mobile micro-robot provides nanometer precision displacements and travelling range of several centimeters. Thanks to its intuitive and flexible nature, the miBot is revolutionizing the handling and sensing of samples at micro and nano scale in a way which has never been achieved before. As it does not require mounting screws, the set-up time is a matter of a few minutes. And, since the motion directions of the miBot are aligned with its natural axes, it is very intuitive to control and allows you to easily achieve complex manipulations.

Options

- 1 to 4 miBot manipulators
- Vacuum / SEM compatible components
- Electrical probing module
- Integration with non-standard microscopy equipment or complex experimental setups

Micro-Tools & Sensors

- Test probe tips (µm Ø)
- STM tips (nm Ø)
- AFM probes
- Force sensors
- Optical fibers

Installation

Whether you are working with optical or scanning electron microscopes (SEM or FIB), installing the miBot manipulators in your experimental setup has never been so easy. Standard plug-n-play turnkey solutions are provided and you can choose between different options and compatible micro-tools in order to tailor the system exactly to your needs.
Key Features & Benefits

**Ultra compact design**
- High mechanical and thermal stability
- High stiffness for reduced sensitivity to vibrations
- Monolithic design for higher robustness

**Extreme high resolutions of positioning on large travel range**
- Piezoelectric actuators technology
- Virtually no motion limitation
- High operating velocity
- No drift (< 1nm/min)
- No backlash

**High modularity & versatility**
- Compatibility with many types of microscopes (light, SEM, FIB)
- Compatibility with several micro-tools and sensors

**Turnkey solutions**
- Standard platforms with 1 to 4 miBot
- Custom integration with existing or new microscopy equipment

**Unprecedented ease-of-use**
- Coarse positioning by hand (no screw)
- Fast setting-up and reconfiguration
- Easy transfer from one microscope to another
- Fast micro-tool exchange
- Intuitive control with control pad and software interface
- No coupling movements
- Extremely short training period
Applications

In situ material characterization

Micro-/Nano- Electronics

LED Testing

Single Cell Manipulation

SEM / TEM sample preparation

MEMS / NEMS Testing

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