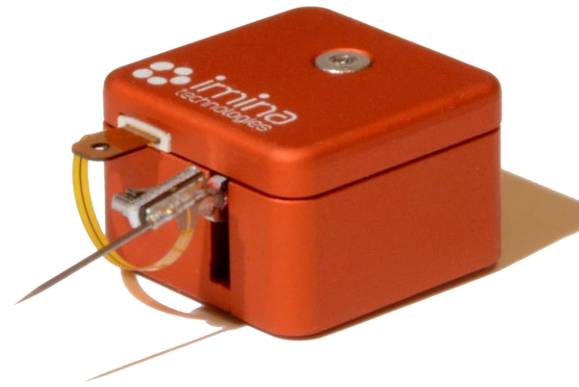


# miBot™ BT-11

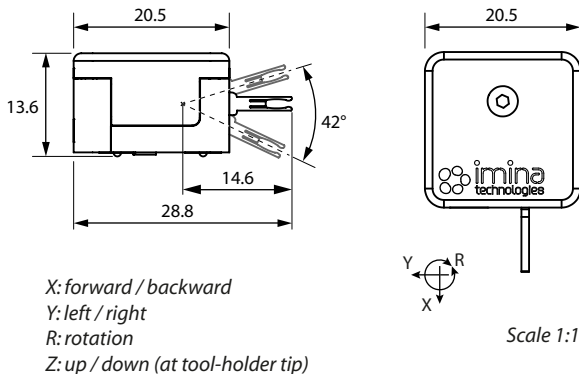
## Revolutionizes micromanipulation and sensing

The miBot is an ultra compact mobile robot. It is virtually untethered and free to move, providing many advantages to manipulate and probe anything from nanoparticles, semiconductors, MEMS to biological cells. This unique solution dramatically simplifies experiment in a microscope, helping you *taking your research to the next level.*



## Technical Specifications

<b>Degrees of freedom</b>	4 (2 translations and 2 rotations)
<b>Dimensions</b>	body: 20.5 x 20.5 x 13.6 mm <sup>3</sup> arm: 8.3 mm (without micro-tool)
<b>Weight</b>	12 g (without micro-tool)



<b>Operating range</b>	X and Y: typ. 5 cm (limited by cable) R: ± 180° Z: 42° (arm rotation)
<b>Scanning range</b>	X: 440 nm Y: 250 nm Z: 780 nm
<b>Speed</b>	X and Y: < 2.5 mm/s Z: < 150 mrad/s
<b>Resolution</b>	X: 60 nm    scanning: 1.0 nm Y: 40 nm                       0.5 nm Z: 100 nm                      1.5 nm
<b>Forces and torques</b>	X and Y: push: 0.3 N hold: 0.2 N Z: lift: 0.7 Nm (5 g) hold: 0.9 Nm (6 g)
<b>Temperature range</b>	273 K to 353 K
<b>Lowest pressure</b>	10 <sup>-7</sup> mbar
<b>Electrical probing</b>	voltage range: ± 100 V current: < 100 mA signal resistance: typ. 3.5 Ω

## Your Benefits

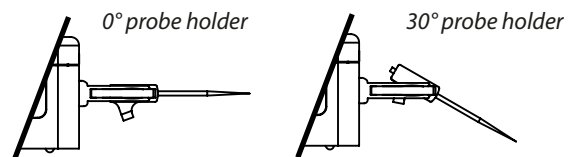
- Probe large samples with nanometer resolution
- Reduce damaging of your samples
- Carry out complex positioning maneuvers
- Simultaneously characterize multiple properties of samples
- Work at ambient and vacuum conditions
- Perform more experiments in less time

## Applications

- *In situ* material characterization
- Micro / nanomanipulation
- Electrical probing (failure analysis)
- SEM / TEM sample preparation
- MEMS testing

## Key Features

- No coupling movements (natural axes)
- Ultra compact design
- Nanometer resolution of positioning
- Centimeter traveling range
- Compatible with various microscopes (light, SEM, FIB)
- Electro-mechanical tool holder



The proprietary tool holder mechanism of the miBot allows to quickly modify the angle of attack of the electrical probe and connect diverse micro-tools and sensors.

Available in the US & Canada exclusively from:



9831 S. 51<sup>st</sup> Street, C119 • Phoenix, AZ 85044 USA  
tel: 888.777.5573 (toll free) / 480.940.3940  
www.nanoscience.com • info@nanoscience.com