

# **Nanorobotics Market by Type (Nanomanipulator (Electron Microscope and Scanning Probe Microscope), Bio-Nanorobotics, Magnetically Guided, and Bacteria-Based), Application (Nanomedicine, Biomedical, and Mechanical), and Geography - Global Forecast to 2023**

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## **Abstracts**

Increasing government support and level of investment in nanorobotics, growing advancements in molecular robots, and rising focus on nanotechnology and regenerative medicine acts as major driving factors for nanorobotics market

The nanorobotics market is expected to reach USD 8.3 billion by 2023 from USD 4.9 billion in 2018, at a CAGR of 11.1%. This growth can be attributed to the increasing government support and level of investment in nanorobotics, growing advancements in molecular robots, and rising focus on nanotechnology and regenerative medicine. However, implementation of excise tax and heavy custom duty on nanorobotics in the medical field restrict the growth of the nanorobotics market.

Nanomanipulator is expected to hold largest share of the overall nanorobotics market, by type, during the forecast period

Nanomanipulator is expected to hold a larger share of the overall nanorobotics market in 2018. In nanorobotics, nanomanipulators are mainly used to manipulate the atoms and molecules and were among the first nanorobotic systems to be commercially available. Nanomanipulators presents more capabilities similar to those in industrial manipulators and is expected to be highly used for nanomedicine applications.

Market for mechanical application to grow at highest CAGR during forecast period

The market for mechanical applications is expected to grow at the highest CAGR during 2018–2023. Mechanical nanorobotics system, an advanced step of nanotechnology, is flexible enough to be manipulated in various ways. Also, mechanical nanorobots can be built on any type of nanorobotics systems, such as bio-nanorobotics, magnetically guided, and bacteria-based. The market for other applications is expected to grow at the second-highest CAGR during the forecast period.

Americas to be largest shareholder in 2018, whereas Europe is expected to register highest CAGR during forecast period

The Americas is expected to account a major share of the overall nanorobotics market in 2018. The growth in this market is mainly driven by the favorable government scenario for nanorobotics research and focus on nanotechnology and regenerative medicine. Also, the large share of this region can also be attributed to the highly developed healthcare system and the presence of a large number of nanorobotics players.

The market in Europe is expected to grow at the highest CAGR during the forecast period. The high growth of the market in this region can be attributed to the increasing aging population and rising governmental healthcare expenditure in Europe. Also, Europe was among the earliest regions to recognize the potential of nanorobotics; therefore, a high level of public and private funding contribute to the high growth of nanorobotics in Europe.

The breakup of primaries conducted during the study is depicted below:

By Company Type: Tier 1 = 55%, Tier 2 = 20%, and Tier 3 = 25%

By Designation: C-Level Executives = 75% and Directors = 25%

By Region: Americas = 10%, Europe = 20%, APAC = 40%, and RoW = 30%

Players in the nanorobotics market include Ginkgo Bioworks (US), Imina Technologies (Switzerland), Thermo Fisher Scientific (US), Klocke Nanotechnik (Germany), Oxford Instruments (UK), Kliendiek Nanotechnik (Germany), Bruker (US), JEOL (Japan),

Toronto Nano Instrumentation (Canada), EV Group (Austria), Xidex (US), Synthace (Germany), Park Systems (South Korea), Smaract (Germany), Nanonics Imaging (Israel), Novascan Technologies (US), Angstrom Advanced (US), Hummingbird Scientific (US), NT-MDT Spectrum Instruments (SI) (Russia), and WITec (Germany).

Factors such as growth opportunities in emerging markets, increasing application areas of microscopes, integration of microscopy with spectroscopy are expected to generate opportunities for the nanorobotics market players.

## Research Coverage

Illustrative segmentation, analysis, and forecast for the market based on type, application, and geography have been conducted to offer an overall view of the nanorobotics market.

Major drivers, restraints, opportunities, and challenges pertaining to the nanorobotics market have been detailed in the report.

Opportunities in the market have been defined for stakeholders, along with the details of the competitive landscape for market leaders.

Strategic profiling of key players in the nanorobotics market has been done, players have been ranked, and core competencies have been comprehensively analyzed.

The study also covers the competitive leadership mapping for 25 players in the nanorobotics market.

## Reasons to Buy This Report

The report would help leaders/new entrants in the nanorobotics market in the following ways:

1. This report segments the nanorobotics market comprehensively and provides the closest market size estimations for segments across regions.
2. The report would help stakeholders understand the pulse of the market and provide them information on key drivers, restraints, challenges, and opportunities governing market growth.

3. This report would help stakeholders understand their competitors better and gain insights to improve their position in the business. The competitive landscape section includes the competitor ecosystem, and growth strategies such as product launches, acquisitions, expansions, agreements, collaborations, and joint ventures.

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