

Advantages of Sensing and Programmability in Nano-/Micro-Robotics

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Abstract

Microrobotics and nanorobotics can be made considerably more versatile and capable by adding sensing to a resolution of 5.10-10m and user-programmability. Such functionalities have enabled micro-assembly lines and automation (where desired) on the nano-scale. Add to such functionality a global co-ordinate system between the robots and we protect from robot clashes and enable sensing by one robot and operation by another on the same micro/nano spot. Image recognition either on the bench (micro) or under the Scanning Electron Microscope (micro or nano) is an essential element for programming such microassembly.

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