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Nanorobotics Control

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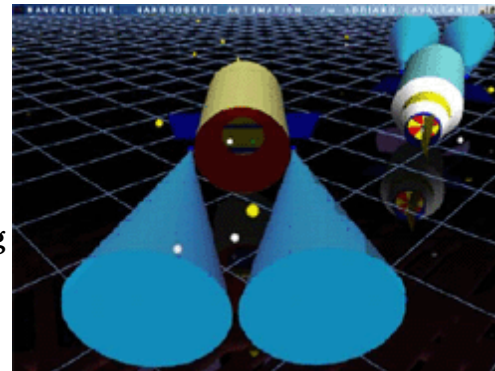
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Initial uses of nanorobots to health care are likely to emerge within the next ten years with potentially broad biomedical applications. The ongoing developments of molecular-scale electronics, sensors and motors are expected to enable microscopic robots with dimensions comparable to bacteria.

Recent developments in the field of biomolecular computing have demonstrated positively the feasibility of processing logic tasks with bio-computers, which is a promising first step to enable future nanoprocessors with increasing complexity. Studies in the sense of building biosensors and nano-kinetic devices, which is required to enable nanorobots operation and locomotion, have also been advanced recently.

Moreover, classical objections related to the actual feasibility of nanotechnology, such as quantum mechanics, thermal motions and friction, have been considered and resolved, and discussions about the manufacturing of nanodevices are growing up.



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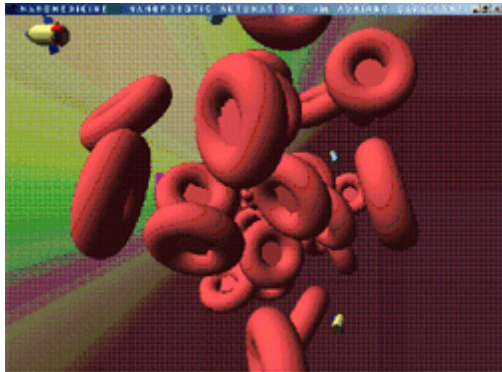
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Developing nanoscale robots presents difficult fabrication and control challenges. A practical approach within advanced graphics simulations is presented for the problem of nanorobots automation and its application for medicine. The approaches described in our papers focus mainly on nanorobot control design for assembly manipulation and the use of evolutionary agents as a suitable way to enable the robustness of the proposed model. Also,

the presented papers summarize distinct aspects of some techniques required to achieve a successful nano-planning system design and its 3D-simulation visualization in real time. The control design and the development of complex nanosystems with high performance can be well analysed and addressed via simulation to help pave the way for future use of nanorobots in biomedical engineering problems.

Further information about nanorobot design, control and simulation available at: <http://www.nanorobotdesign.com>.

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