

Small Machines

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Fifty years ago, the Nobel Prize-winning physicist Richard Feynman claimed that a revolution was underway where information, computers, and machines would be shrunk to impossibly small dimensions. History has proven him mostly right: Moore's law has brought Feynman's dreams to fruition in the realms of data and computing, giving us cell phones, the internet, and artificial intelligence. But the third leg of Feynman's dream, the miniaturization of machines, is only just getting underway. Can we create functional, intelligent machines at the smallest scales? And if so, how? In this talk, I'll take a look at some of the approaches being explored, including our group's forays into combining electronics, paper arts, and functional 2D materials to create a new generation of smart, active micromachines.