“The Mechanical Side of Artificial Intelligence”

Artificial Intelligence typically focuses on perception, learning, and control methods to enable autonomous robots to make and act on decisions in real environments. On the contrary, our research is focused on the design, mechanics, materials, and manufacturing of novel robot platforms that make the perception, control, or action easier or more robust for natural, unstructured, and often unpredictable environments. Key principles in this pursuit include bioinspired designs, smart materials for novel sensors and actuators, and the development of multi-scale, multi-material manufacturing methods. This talk will illustrate this philosophy by highlighting the creation of two unique classes of robots: soft-bodied autonomous robots and highly agile aerial and terrestrial robotic insects.

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