

Soft robots for terrestrial and marine locomotion

Mobile robots have the potential to address many of today's pressing problems ranging from search-and-rescue to environmental monitoring to disaster relief. However, the traditional approaches indoors do not perform well in unstructured environments. The key to solving many of these challenges is to explore new, non-traditional designs. Fortunately, nature surrounds us with examples of novel ways to navigate and interact with the real world. Dr. Tolley's Bioinspired Robotics and Design Lab seeks to borrow the key principles of operation from biological systems and apply them to robotic design. This talk will give an overview of recent projects demonstrating approaches to the design, fabrication, and control of soft mobile robots. These projects seek to develop bioinspired systems capable of navigating the world by walking and swimming.