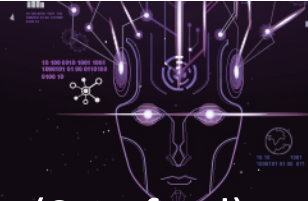


Mesh of Robots on a Pneumatic Highway (MORPH): An Untethered, Human-Safe, Shape-Morphing Robotic Platform

PI Elliot W. Hawkes (University of California, Santa Barbara), PI Sean Follmer & Co-PI Mac Schwager (Stanford)

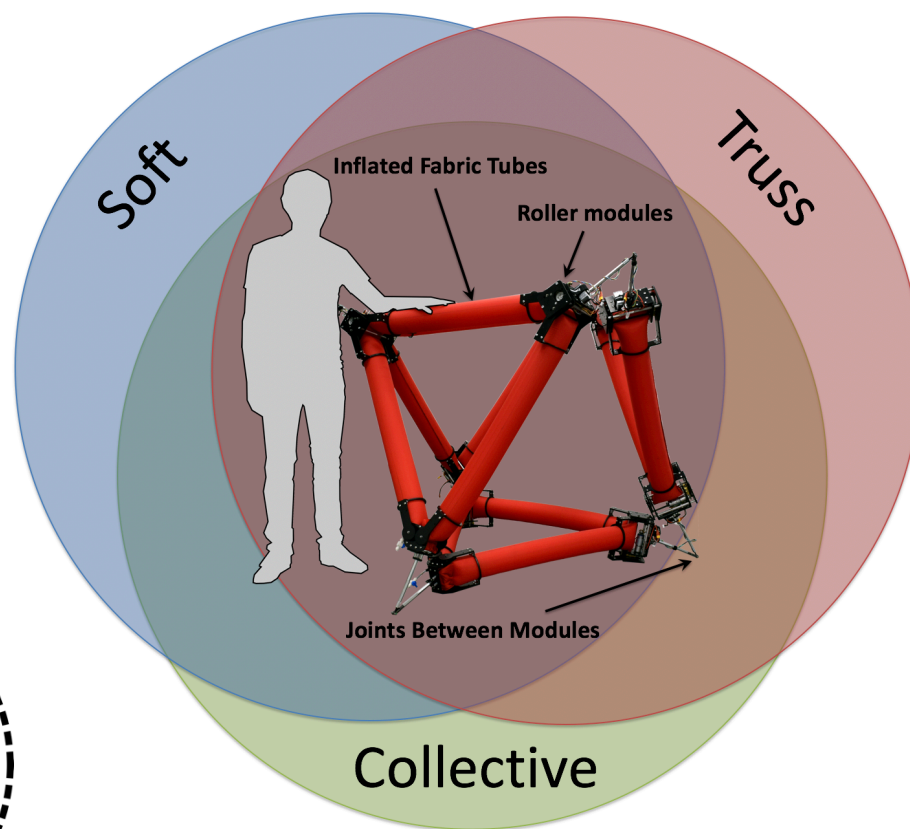
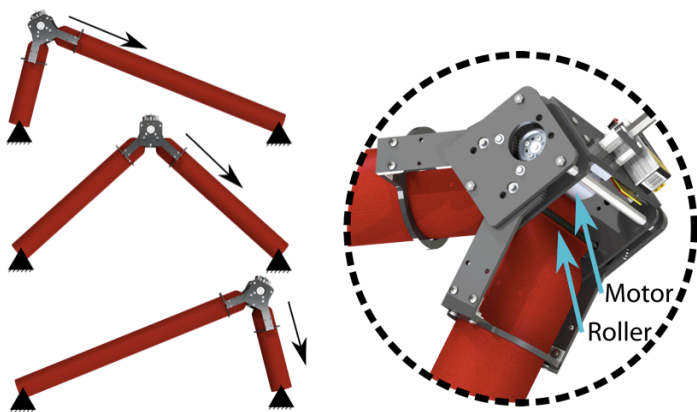


Challenge

- How can we create un-tethered soft robots capable of dramatic shape change?

Solution

- Iso-PERI-metric soft robots with an effective constant volume



Scientific Impact

- New Robotic Architectures
- Distributed Control Methods
- Soft Inflated Tube Mechanics

Broader Impact

- Search and Rescue
- Human Safe Interaction
- Robotic Platform for exploring Kinematics

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