Modular Soft Robots (MSoRos)

M3SoRo - Mobility and Morphing using Modular Soft Robots/Award# 1830432/2018-21/
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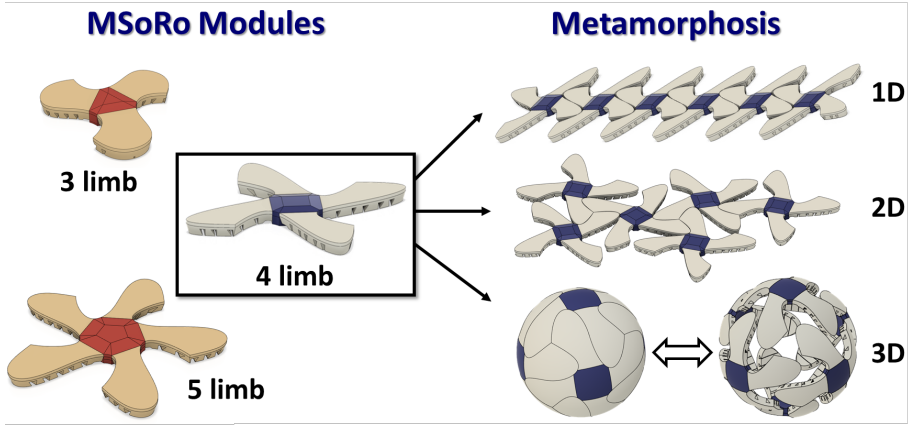
Challenge

- **Robot topology & morphology design** for SoRo metamorphosis
- **Mobility principles** for complex & unknown environments

Solution

- Geometric design approach optimizes ease of locomotion with that of reconfiguration.
- 'Environment-centric' approach uses motion primitives to model robot-environment interactions.



Scientific Impact

- **Environment awareness and reconfiguration.** Task-specific morphing of collective MSoRos

Broader Impact

- MSoRo swarms for disaster relief, precision agriculture
- Open-source MSoRos design kits for STEM outreach & community
- Achieve locomotion by learning from the environment