

# Soft Robots

(or, let's build inflatable robot elephants and stuff)

ATLS 4519-003 / CSCI 4830-005 2:00 - 3:20 MW ENVD 234A

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In this seminar and projects special topics class, we'll investigate emerging technologies in soft robotics, and build working prototypes of synthetic organisms (aka robots) that use soft and compliant mechanisms to move. We'll survey recent work in this field, by reading research papers and videos; and we'll experiment with building working systems that leverage biomimetic and compliant robotics principles. Challenging? Yes. Fun? Certainly. Crazy? Maybe. No previous experience is expected; only a willingness to work hard and take risks.

If you have no idea what I'm talking about, please see (for example):

**Otherlab's elephant:** [youtube.com/watch?v=F7DfuALmptw](https://youtube.com/watch?v=F7DfuALmptw)

**Harvard's octopus:** [youtube.com/watch?v=1vkQ3SBwuU4](https://youtube.com/watch?v=1vkQ3SBwuU4)

**Seoul National University and Berkeley's Jumproach:** [youtube.com/watch?v=xa7OCHohbdc](https://youtube.com/watch?v=xa7OCHohbdc)

**PopupCAD:** [popupcad.org/](http://popupcad.org/)

