Design and Control of A Soft Wall-Climbing Robot (*New - Winter 2019*)
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Soft robotics is a newly emerging research direction in the field of robotics, and have found many exciting applications such as wearable medical devices and untethered field navigation. The objective of this project is to design and control a pneumatically actuated soft robot capable climbing vertical walls for field navigation and inspection applications. Through proper structure design of the pneumatic actuators of the robot, the robot will be able to locomote on flat and vertical surfaces along arbitrary in-plane directions, and multiple adhesion regulation mechanisms will be investigated for effectively holding the robot body on a vertical surface. The research tasks include robot design and fabrication, position sensor integration, control sequence programming, and prototype testing.

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