

Controlling Soil Interactions to Enable a Fast, Steerable, Burrowing Soft Robot

In this talk, I describe our new soft burrowing robot. The talk has three sections. First, I introduce the challenges associated with burrowing and how we can look to biology to glean some principles for reducing and controlling the resistive forces that arise while burrowing. Second, I describe a set of experimental results from testing hypotheses that we derived from our look to biology. Third, I present the design and characterization of the robot.