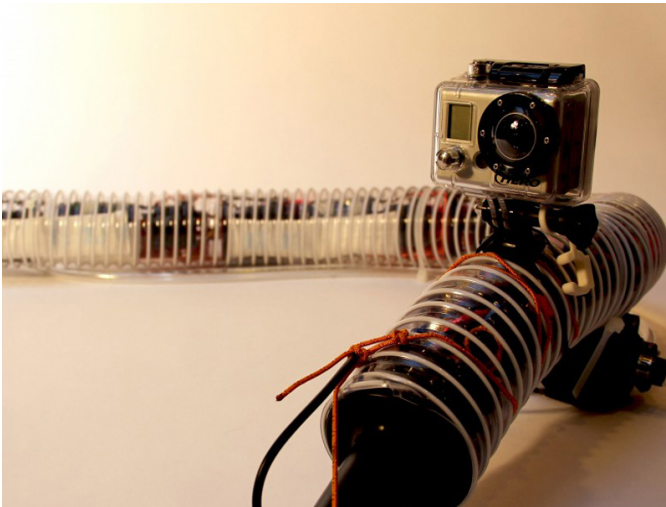


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# SNEEL

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## Swimming Robotic Water snake



### CONCEPT

Sneel is a swimming robotic water-snake, constructed to explore lifelike, sinuous motion in an aquatic robot. It is designed to navigate unknown territory and extreme terrain.

Sneel is a locomotive, aquatic robot. It is deeply tied to the work of Protei, an open-source, ocean-cleaning sailing robot. Sneel's purpose is to gather remote environmental data. Sneel engages communities to take a hands on approach to marine preservation through the use of modular hardware toolkits for fabricating and programming open-source biomimetic robots for environmental exploration. The electromechanical design of Sneel mimics the structure and motion of a real water snake, as a test to explore swimming behavior in an undulating linear robot.

Worldwide applications for Sneel include remote marine data collection of salinity / toxicity levels, nuclear level monitoring, pipeline or underwater exploration, fishery monitoring, and oil-collection.

### MATERIALS

*urethane flex tubing, microcontrollers, Zigbee wireless radio, hose clamps, wires, servo motors, titanium servo brackets, silicon, marine grease, epoxy*

### EXHIBITIONS

Sneel has been exhibited at TEKS meta.morf Trondheim Electronic Arts Biennial, Transnatural Art Festival NEMO Amsterdam, ITP NYU, Geekdown 92Y Tribeca.

### TECHNOLOGY

Sneel uses a custom-written software library to propagate an oscillating wave down a line of servo motors that comprise the robot's body. The current model is a platform for the development of other low-cost snake drones.

### LINKS:

<http://gabriellalevine.com/SNEEL>