Assignment: Source Acquisition (I=0.1)

Identify and document some exciting and useful animal capability that continues to elude robotics. By citing some appropriate scientific literature, support the argument that the desired capability has indeed not been (completely) achieved in robotics and that there is animal "expertise" to be mined. Defend the quality of your major source(s) of authority regarding the capability and of the key supporting literature.

Remarks

The simplest way to do this would be to find a paper in the refereed bioinspired robotics that discusses the authors' efforts to develop such a capability. However, it would be equally appropriate to identify on your own some useful capability that robots lack that can be found in the world of biology, so long as you are able to muster the required documentation.

This is the first opportunity in the class to become acquainted with a particular set of locomotion capabilities in machines and animals. Hopefully, the background reading you do here will shape the group project you participate in and possibly motivate you to work up a bit of a self-tutorial effort on some technical aspects of the material that you think are important but found very hard to understand.

Evaluation Rubric

General Quality:

C.1.1) Venue

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Provide evidence that defends the quality of the venue(s) of the article(s) you are using to make the major claim.

**C.1.2) Authors**
Provide evidence that supports the reliability of the authors of the major article(s).

**C.1.3) Source Identification Methods**
Describe Librarian consultation on your search methods and describe your response to the advice.

**Bibliography**

**C.1.4) High Quality Bioinspired Robotics Contribution**
At least one high quality source from the bioinspired robotics literature: what is the problem or capability that animals possess with which we do not know yet how to endow our robots?

**C.1.5) General Robotics Literature**
Three Claims-Checking Quality Sources from Robotics Literature: which investigators have tried to develop the capability and why/how have they fallen short?

**C.1.6) Biology Literature**
Three Fact-Checking Quality Sources from the Biology Literature: what are the animals’ capabilities in these areas and how are they relevant to machine builders’ needs?

**Submission**
Mandatory Consultation with Librarian: 1/20 – 1/27
Submission of Draft to Class Wiki: 1/27
Scoring of Mechanics (Librarian scores C.1.1 – C.1.3; Technical Staff scores C.1.3 – C.1.6)
Scored Draft emailed back: 2/10