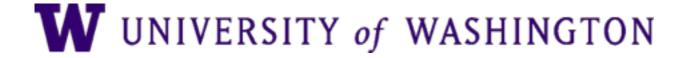
ME 599/AA 546/EE 546: Biology-inspired robot control

Lecture 8
Sawyer B. Fuller

Goals:

- Introduce Paper5
- Presentation and discussion of Paper 4 by Yogesh Chukewad



set 1 solutions posted on line

Problem set 1





Pdf and skeleton code posted on the course website here 2.

Note: to fill in the dynamics function for your robots, note that it is rolling on the ground, so it must *move in the direction it is facing*. For vehicle 1 (problem 2), this means that it will move with a velocity equal to the wheel velocity input u, and will not intercept the light source unless it is facing directly toward it.

Note 2: online or paper submissions are both accepted (if you don't submit online, just bring a printout to class).

Solutions here (please do not distribute).

Points 4

Submitting a file upload

at end of class today: Jim Burgford-Parnell

 mid-quarter eval/feedback - what do you like and what could be improved?

next Friday and following Wednesday

- midterm project presentations
 - initial results
 - next steps
- 10 min each + 2-5 min questions
- Order TBA

Next wednesday's reading: "vehicles: Experiments in Synthetic Psychology" by Valentino Braitenburg

- reading: vehicles (chapters) 1—9, 12. pdf online on canvas.
- basic idea: understanding the brain can seem really hard
 - but by conceptualizing simple robots inspired by the brain it gets easier
- shows how brain discoveries would produce functional robots
- muculloch pitts neuron:
 "integrate and fire"

 hebbian learning/associative memory Pavlov's Dog: ring a bell and feed at same time, dog learns to salivate at bell "neurons that fire together wire together"

