

Reading Assignment 1

“Vehicles: Experiments in Synthetic Psychology” by *Braitenberg*, ch. 1-4

“An Imitation of Life” by *W. Grey Walter*

“A Machine that Learns” by *W. Grey Walter*

Due: *Wednesday, February 3rd, 1999*

The following questions are intended to stimulate your understanding of the assigned reading material. Many of them have no “right” and “wrong” answers.

1. Braitenberg mentions friction in chapter one of “Vehicles”. What effects might friction, have on the vehicles he describes? What about real robots, such as Ramona? Can you think of any way to cancel out these effects or compensate for them?
2. Describe two possible variations of vehicle 3c and describe their expected behaviors.
3. Both Braitenberg and Walter describe their robots’ actions and behaviors in an anthropomorphic way, as if they were somehow alive. What are the benefits of describing them in this way? Can you think of any dangers that this might introduce?
4. How well do you think that the approaches described in the readings would scale up to more complex robots? That is, how complex a robot could you build using techniques like these? Could you build something comparable to an insect? A dog? A human? How do you think that the advances in technology since Walter wrote his papers would affect this ability to scale up?