Hunter Brochu
CS 206
Weekly Report #1

Which robot can move a ball better, a quadruped robot or a tripod robot?

How I plan to test this:

- I will generate two separate robot experiments
  - One experiment will test to see how efficient a quadruped robot can move a ball to a specified location.
    - This robot will be the same robot as we have made in our ten assignments, except it's finiteness function will be defined differently.
  - The other experiment will test to see how efficient a tripodal robot can move a ball to a specified location.
    - This robot will be similar to the quadruped robot. Its body will be the same sized square but it will have three legs instead of four.
    - To have one less leg will require I change the neural network to deal with that.

- The fitness function will be changed to reflect how efficient a robot moves the ball to the specified location. Getting the ball to the location rewards them, but the faster they get it there rewards them more. When the ball stays within the location for five seconds the trial is complete and the next test begins.

Steps to complete the project:

- I will need to create two separate simulations: one for the four legged robot and one for the three legged one.
- I will then need to spawn a spherical object near the robots.
- I will then need to remove one of the legs from one of the robots and adjust the neural network accordingly.
- I will then need to define a certain area as the location the robots are trying to move the ball to.
- I will then need to redefine the fitness function for both robots to account for keeping the ball in the specified area and how long it takes to keep the ball in that area for 5 seconds.