Linkbot Planning:

You will learn several new commands today to help you make the Linkbot's motion match the gravity car's motion. Everything after the hashtag (or pound symbol) is a comment that the computer will ignore, but the reader may find helpful. The following program makes the robot go at speed1 for one second, then speed2 for one second.

```
import linkbot   # loads 'linkbot' module
import time

robotID = input('Enter Linkbot ID: ')  # prompts user for a Linkbot ID and
                                       # stores the result in a variable called
                                       # "robotID"
robot = linkbot.Linkbot(robotID)   # Gets a handle to the robot with the serial
                                   # ID stored in "robotID"

robot.setJointSpeeds(speed1, 0, speed1) #changes the robot's speed
                                            #in degrees/second
robot.moveContinuous(1, 0, -1) #1 means go, 0 means stop
time.sleep(1) #1 second
robot.setJointSpeeds(speed2, 0, speed2)
time.sleep(1)
robot.moveContinuous(0,0,0)
```

How might this be useful for matching the motion of the gravity car?

Use the file gravityCar.py to get your started. Remember to comment each line with things like, *what the line does* and *why you are doing that*.

Once you think your Linkbot is right, run your program, take data, then graph the data on the next page.

Does your graph match the gravity car graph? What needs to be fixed?

Are your graphs linear like the previous challenges or is it something else?

Linkbot Data

IV: _____ DV:_____

Data:

Graph: