Lab4 (100 points)

Important: We will demo in class or online. For in class demos, we will go around the room. Be prepared to demo at the start of class. The submitted code will be used only to verify that you did not copy from others, to compile and re-run your program, to make sure you were indeed demonstrating your own code, and to grade for documentation of your code.

In this program we will start with Lab4. The first new addition is that we are going to define a grid (x and y coordinates) in the config file. We will discuss this in class. The other new addition is that in this lab, if you receive a message that is more than 2 squares away from you, using the Euclidean distance formula, your program will print the message and an error saying OUT OF RANGE (and then print all the data). ALL output must include: your location, the location of the machine sending you the message, and the message. Print out a message saying IN RANGE (and all the data) when the message is in range. Print a message saying NOT IN GRID (and all the data) if the drone receives something from outside the grid.

Submit well-documented and well indented code along with a README file explaining how to run

the program, and a makefile. Submit it using GitHub.

The grading rubric is as follows:

• Program correctness and robustness (what happens if I give garbage input): 80%

• Coding style (comments, indentations, README, Makefile): 20%