Lab3 (25 points)

Important: We will demo in class or online. 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 Lab2 (the datagram client/server). Everything that worked in that lab must work here also. The new addition is that in this lab, we introduce the concept of location. The config file will contain all servers, including yours, and include their ip address, port number, and location. In this lab you will combine your client and server into one executable. Your code will be called drone3.c and the executable will be called drone3. It must s**ingle threaded only**.

Your code will no longer read messages from a file. Instead, you will be entering messages in from the command prompt. You must allow input from either the command line (human) or the network. (see the video on select()). We will define a message protocol now when sending from machine to machine. This protocol will include the sender's location and the message (and any other fields we agree on in class). ALL output must include: your location, the location of the machine sending you the message, and the message.

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%