Overview
Smell:

Smell was implemented in two parts: The searching/sensing and then finding the closes food source.
Searching: The searching was done through representing the hexagonal grid in a 2D array and then running a Dijkstra's algorithm on it.
We made a Vex class that held all the necessary information such as distance, Hex, color, etc.
Finding food: All of the food found with the search algorithm were placed into a priority queue sorted by distance.
When returning a value, the closest food location is returned, and the optimal direction for the critter to turn to is found by backtracking from the food location to a hex adjacent to the critter, and then returning that direction.

Server-Client:

The client aims to turn the actions of the users into the recognizable language and send to the server. In this way, we don't actually need to hold a world, for example, in our local computer but rather on the server.

Test:

The format of the url ends with a "\" in our cases. For example, if we are using the demo server, it is "http://critterworld-fa18.developersam.com:8080/hexworld/" rather than "http://critterworld-fa18.developersam.com:8080/hexworld".

Also in the test cases, when loading the world file or critter file, we are using the path in our computer. So if you guys fail to run the test, probably change the path of the files.

Note:

Version counts from 0, which is the empty world, ~~but~~ and the default version is 1, ~~which~~ also is the world that is just initialized. Doing both updates and an action in one step, the death of the critter only add up to one version. **0** version 1

We cannot directly start from jar. You need to go to view/Main to enter the address of the server manually then you can follow the a7writeup instructions to start the client and server.

Sometimes there are some wired phenomenons when doing testing using our client and the demo server. But our client works well with our server, and our server have been throughly tested by postman with every requirements on the API Spec and with some of our customized test cases.