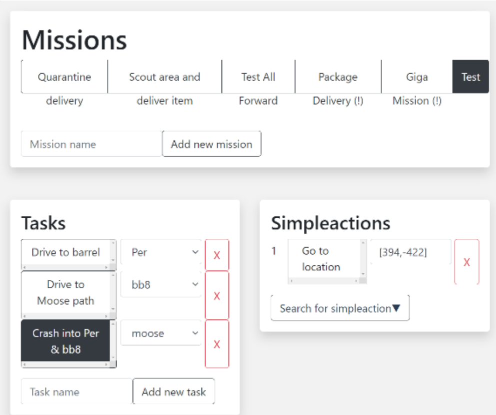
WiRom Exercise

13/11-22 Simen Farbu Swensen 595487Link to Gitrepo: https://github.com/H595487/WiRoM2.0

One of my biggest hobbies is playing videogames, and as I have continued my studies in programming I have definitively gotten more interested in how automation of npc’s etc work, as I have also understood more of how code works. I often find it interesting when playing games, to try to test the limits of physics engine that games run. The easiest way of doing this is often to se what happens when 2 movable objects interact (crash into each other etc). Sometimes the effect simulates reality pretty good, sometimes not. I noticed a lot of room for creativity in this task, so I wanted my custom missions to(in addition to whats required in the assignment) test this in the WiRom sim.

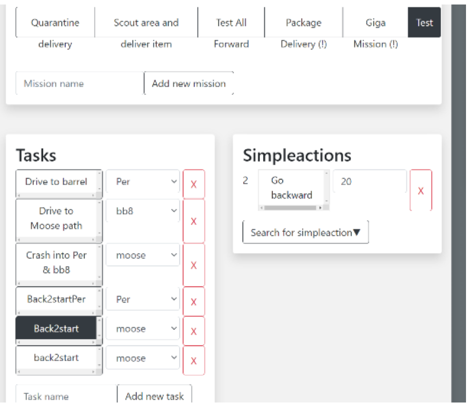
The first mission just made the bots crash together, and tested simple actions like move to point and go forward. The second mission added more tasks for each robot and I played around with the code in “original_task_allocation.py. to try to avoid the robots getting stuck. Video of execution of both missions (mission 2 had to be split in 2 vids) are available in git repo.

By editing the “calculate_utility” method in the “OriginalTaskAllocation” class it was interesting to see changes in task allocation as well.



Drive to barrel | Per
Drive to Moose path | bb8
Crash into Per & bb8 | moose

1 Go to location [394,-422]



Drive to barrel | Per
Drive to Moose path | bb8
Crash into Per & bb8 | moose
Back2startPer | Per
Back2start | moose
back2start | moose

2 Go backward 20

I did add another moose robot that was names “Per”, and I found this operation to be very intuitive when I used the DSL editor in the web interface.