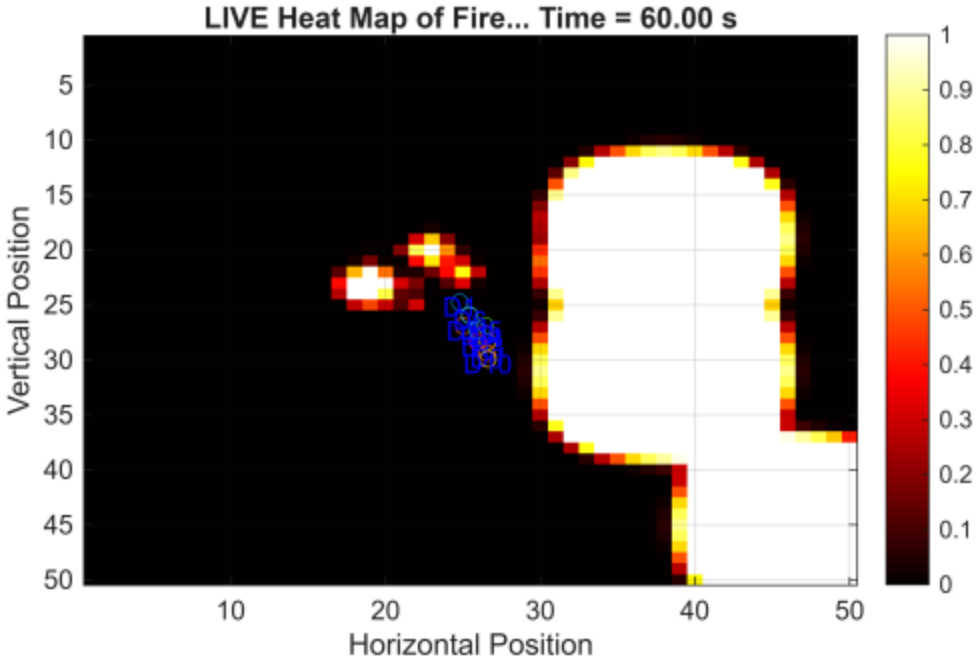
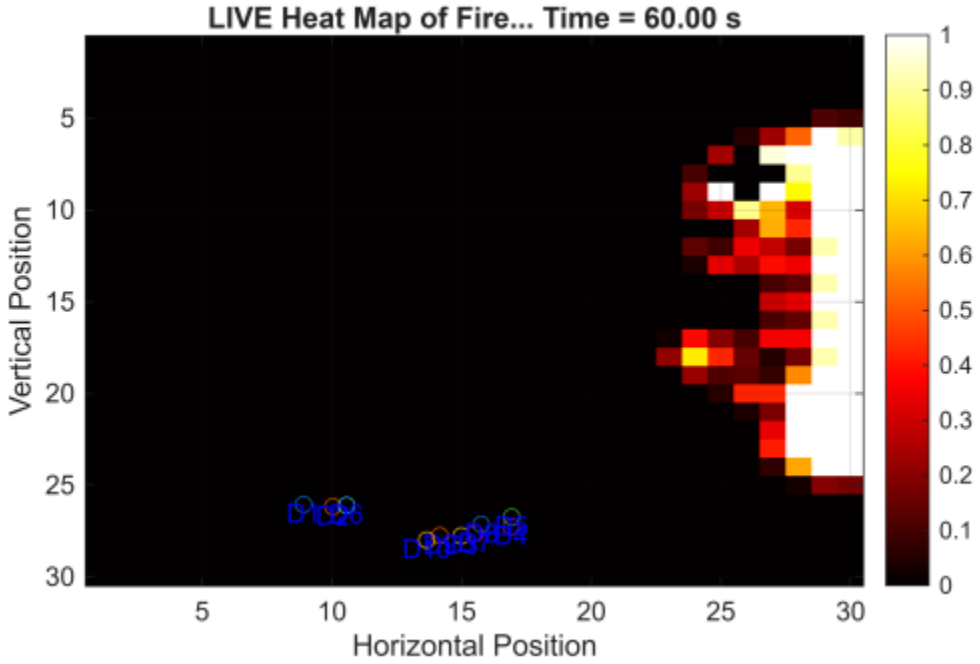

LIVE Heat Map of Fire... Time = 60.00 s
Vertical Position
Horizontal Position
5
10
15
20
25
30
35
40
45
50
10
20
30
40
50
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0


LIVE Heat Map of Fire... Time = 60.00 s
Vertical Position
Horizontal Position
5
10
15
20
25
30
5
10
15
20
25
30
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

DroneID	DistanceTraveled	CellsExtinguished
1	64.8	40
2	59.4	10
3	61.8	0
4	62.4	10
5	61.2	10
6	61.8	8
7	61.2	8
8	61.8	0
9	65.4	5
10	70.8	44

- Drone 10 traveled the most
- Drone 10 extinguished the most
- Drone 3 and 8 extinguished the least

Changes made to code:

While most of the code remained the same, as we advanced through the project we learned that some improvements had to be made. When it came to the Driver Script Responsibility there was a change in the **Save_Results** function, where we had to save a .CSV of the summary of the data, while a .MAT file saved the core data, originally with the pseudo coding each iteration of a simulation would have overridden the previous run. Improvements to the **Summary_table** Function were created to implement the fires data through the simulation. The addition of the **SafePos** function, which helped drones keep a safe distance in the grid units when extinguishing fires. While the drones were expected to extinguish fires, introducing a **deployedwater** function helped ensure that if water “dropped” within a certain radius of a grid the fires intensity would be 0 or Extinguised. To make sure the drones were functioning correctly we had to create a **Select_drone_target** function which served as the drones brain guiding them to the most intense fires to extinguish. While the drone was flying along the grid one wasn't enough so for the fleet of drones **Update_all_drones** function was needed to duplicate one drone's actions into many more. This was vital as it shortened the run time of the simulation.

Future improvements

- Better organization of coding.

- Clearer instructions for easier understanding.
- More well rounded and optimized code