

WEEKLY REPORT and MEETING AGENDA

Report #: 7
Date: 11/13/2023

Project Name: FlameNet
Prepared by: Everyone

Agenda for the meeting

1. Discuss progress on GUI
2. Discuss progress on hardware
3. Discuss progress on Simulation

Overall accomplishments since last meeting

1. Added visual marker to GUI to indicate fires <https://flamenet-client.onrender.com/>
2. The environment in the simulation now gives the beacons information
- 3.

Tasks completed by each team member since last meeting

Task description	Assigned to	Completed?
Worked on layer maps to display information visually	Frank	yes
Refactored CRUD operations for Database, Added new markers to map, set-up node.js server and react hosting	Thomas	yes
Finished data sending and receiving protocol	Jaiden	yes
Setup the beacons to request information from environment rather than randomly creating it	Joshua	yes
Validated GUI specifications and functionality	Himel	yes
Setup GPS and Co2 sensors, helped with configuring data packets	Husein	yes

Plans for next period

1. Test the hardware and its interaction with the GUI
2. Get the simulator to have a more accurate environment
3. Begin/get most of simulation and GUI integrated
4. Begin GUI integration testing

Task assignment per team member (to be completed before the next meeting)

Task description	Assigned to
Star working on the Unity webrequests and integrating with the GUI	Joshua
Attach camera and set up fire detection to node with all the sensors. Assemble a complete node with all the hardware soldered onto a protoboard. Setup master node for pushing data to the database.	Husein
Further testing of mesh network in physical environment and co-simulation testing	Jaiden
Help integration with simulation and GUI; work on any extra features/bugs	Himel
Help with integration testing	Thomas
Start work on backend integration and device model	Frank

Project management status

1. GUI on final phase; last of the features being implemented, and integration with simulation/hardware beginning
- 2.

Minutes from previous meeting

- Software/GUI
 - Finish up final features, begin working on integration testing
 - Begin integration with simulation and GUI; hardware and GUI
 - Finish validating GUI functionality and features
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- Simulation
 - Environment regions created and have begun working on the visual filters for the information
 - Environment now in control of information and beacons can access this information
- Hardware
 - Nodes are set up and using RF24 mesh protocol to communicate with one another
 - Tested the protocol with 3 nodes and found success
 - Will now begin testing limitations on the distance the radios can communicate
 - Will begin working on the data packets and assembling a polished product