PyroSense Project Week-Update Report-3

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Introduction

This week's report summarizes our progress in the PyroSense project, particularly focusing on the alert system's development. We successfully integrated SMS and call functionality, allowing the system to send alerts when the code is executed. As we move forward, our next goal is to automate these alerts so they trigger automatically upon fire detection.

Activities Completed

- **Alert System Development**:
  - Integrated the GSM module to enable the system to send SMS and make calls during the execution of the code.
  - Conducted thorough testing to ensure the reliability of the SMS and call functionalities.

- **Prototype Refinement**:
  - Continued to refine our prototype based on ongoing testing and feedback.
  - Collected and analyzed sensor data to improve system accuracy.

Key Findings

- **Alert System Efficiency**: The current implementation of SMS and call alerts is functioning as expected. However, automating these alerts will significantly enhance the system's responsiveness.

- **Sensor Calibration**: Identified the need for further calibration of sensors to achieve optimal performance.
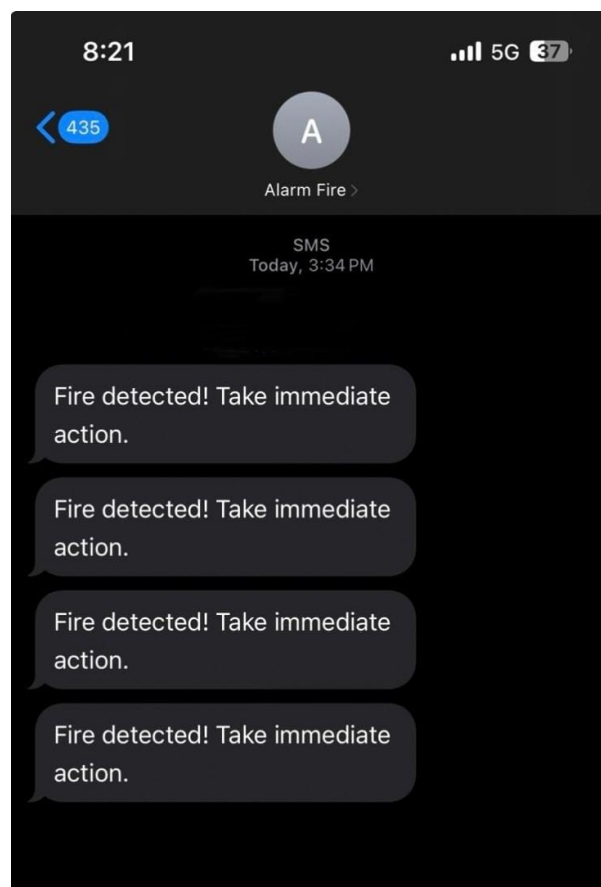
Additional Information

Our system now supports real-time monitoring and manual triggering of SMS and call alerts, a significant advancement in the PyroSense project's development. The next phase will focus on automating this process, which is crucial for enhancing the system's efficiency and effectiveness in emergency scenarios.

Next Steps

For the upcoming week, we plan to focus on:

- **Automation of Alerts**: Developing the capability to automatically trigger SMS and call alerts upon fire detection.

- **Voice Message Integration**: Adding a feature that plays a voice message during a call to inform the receiver that there may be a fire.

- **User Interface Enhancement**: Further improving the Home Assistant dashboard for a more intuitive user experience.

- **Ongoing Testing and Refinement**: Continuing to test and refine both the hardware and software components to ensure system reliability.

Conclusion

This week marked a significant milestone in the PyroSense project with the successful implementation of the SMS and call functionality. As we look to the next phase, our focus will shift to automating these alerts and continuing to enhance the system's overall performance.