Remote GSM Monitoring System

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Introduction

Remote GSM Monitoring System is a product that allows a user to monitor an area without the need for security personnel being present. The system integrates GSM communication, an IP Camera, battery and microcontroller (along with several other components) to provide a simple security solution.

Problem

Construction sites lack an effective way to secure their equipment and materials while the building does not have power or internet. Construction sites require costly security personnel.

Components

Solar Panel 

Raspberry Pi 

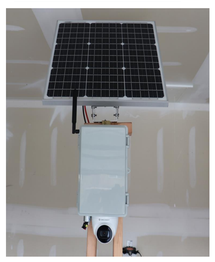
Battery 

Enclosure 

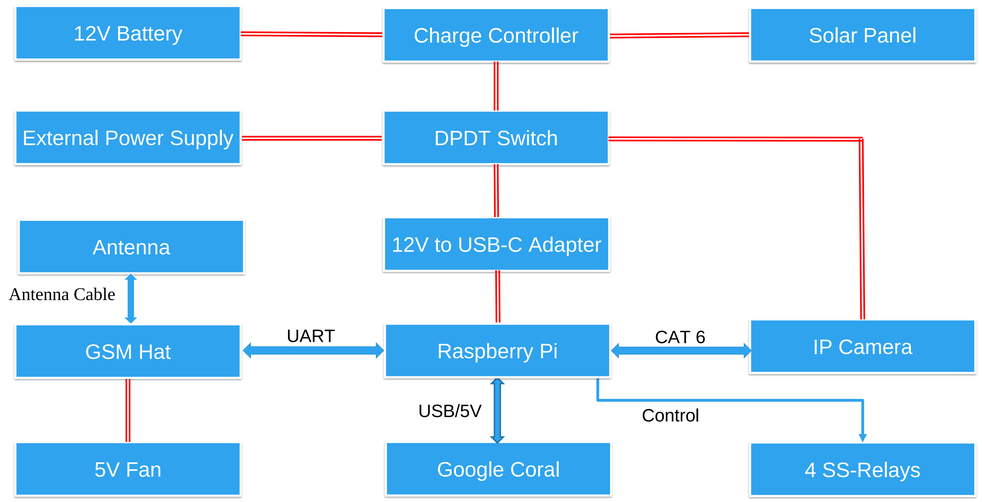
IP Camera 

GSM Module 

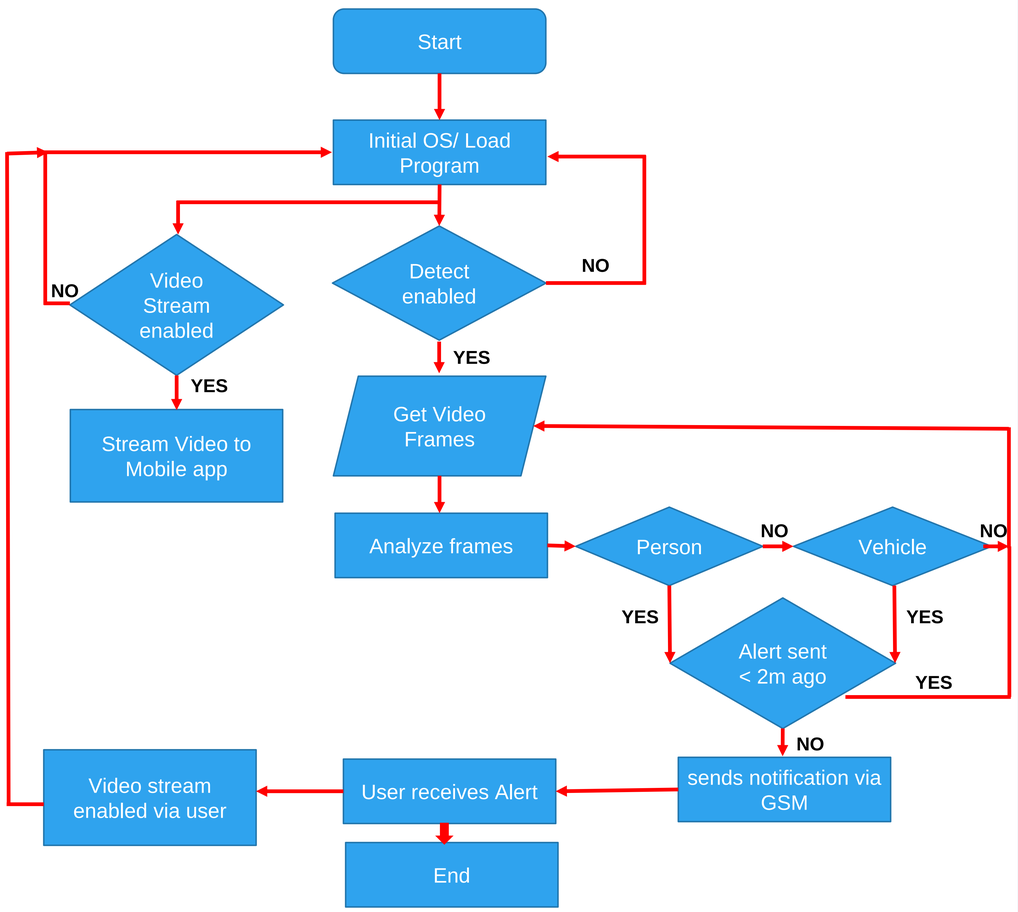
Prototype



Hardware Methodology



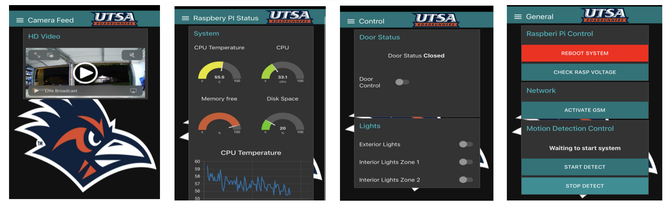
Software Flow Diagram



Solution

- The product monitors an area using an IP camera, sends notifications of only valid object detection via cellular networks, and monitors the system through mobile app
- Use of solar panels and rechargeable batteries allow the Remote GSM Monitoring system to be used in areas that do not have electrical power
- Control up to four electrical devices with solid-state dry relays
- Can be connected to local power source and local WI-FI if desired.
- Live stream HD quality video from the camera plus edge recording of video
- All above options for just $625

User Interface



Conclusion

GSM Remote Monitoring changes the way that companies do business – reliable monitoring coupled with eliminating the need for on-site security allows businesses to operate more cost effectively.

Acknowledgements

Dr. Patrick Benavidez

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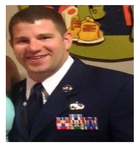

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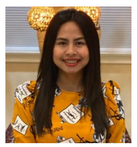

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