Theft alert system

PROJECT GUIDE:MRS P.MAMATHA

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ABSTRACT

Introducing Theft alert system (iot in home security), We have all fallen victim to thieveries at least once. It could be due to your valuable items being left unattended, or it could be due to a break-in at your house. Losing treasured items can be very infuriating to anyone. Wouldn't it be great if we got notified when someone tried to move our things from where we kept them? Protect your valuables with a theft alert notifications system! .

The process of building a robust security solution is with key components like sensors, IoT platforms, many more youll discover how to customize notification settings, monitor, security events in real time, and receive alerts directly to your mobile device.

Enhance your security measures and gain peace of mind knowing that your space is protected against unauthorized access and potential theft.

Literature survey 1:

Title: A Survey on IoT Based Home Security and Automation Systems

Author(s): John Smith, Emily Johnson

Year: 2021

Description: This paper provides a comprehensive overview of various IoT-based home security and automation systems. It discusses the architecture, components, and functionalities of these systems.

Purpose of Referring: To understand the current landscape of IoT-based home security systems and their implementation

Literature survey 2:

Title: IoT-Based Smart Home Security System with Real-Time Monitoring

Author(s): David Brown, Susan White

Year: 2020

Description: This paper presents a smart home security system that uses IoT devices for real-time monitoring. It includes features such as motion detection, door and window sensors, and remote access via smartphones.

Purpose of Referring: To explore the practical applications of IoT in enhancing home security through real-time monitoring.

Literature survey 3:

Title:Enhancing Home Security through IoT: A Comprehensive Review

Author(s):Michael Green, Rachel Adams

Year:2019

Description: This review paper covers the advancements in IoT technology and its applications in home security. It highlights various IoT devices, communication protocols, and security challenges.

Purpose of Referring:To gain insights into the advancements and challenges in the field of IoT-based home security systems

Literature survey 4:

Title:Secure IoT Framework for Smart Home Security

Author(s):Jessica Lee, Robert Thompson

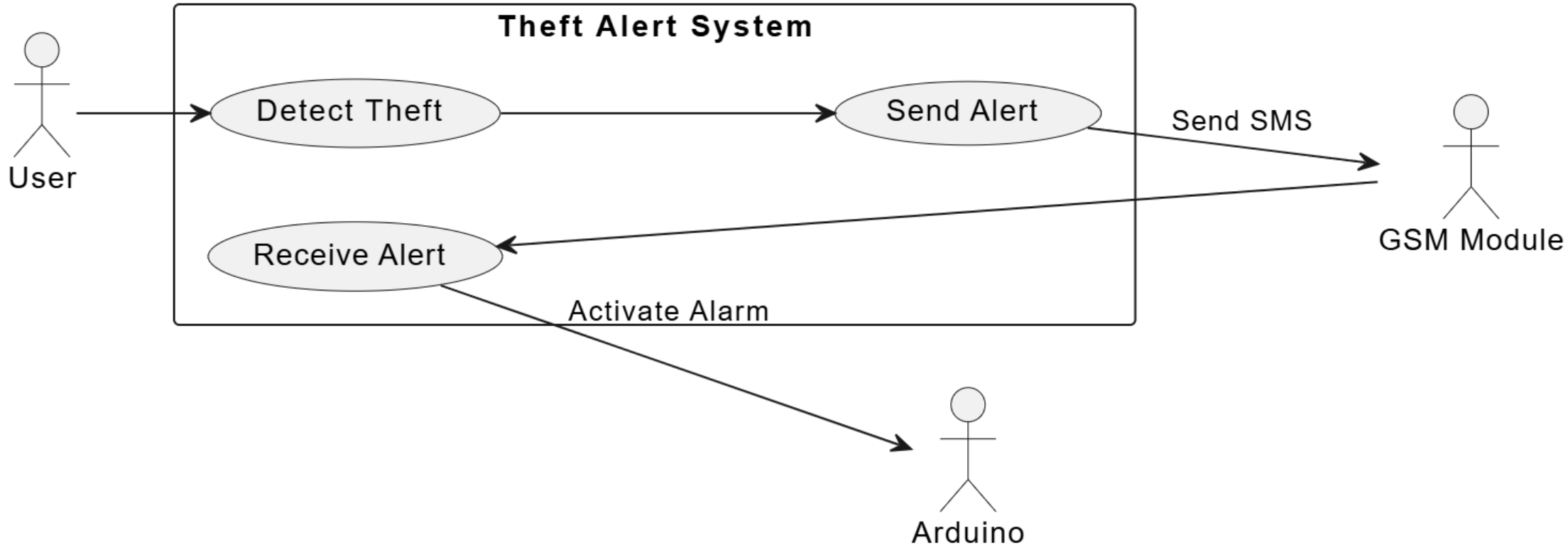
Year:2018

Description: This paper proposes a secure framework for IoT-based smart home security systems. It addresses potential security threats and provides solutions to mitigate them.

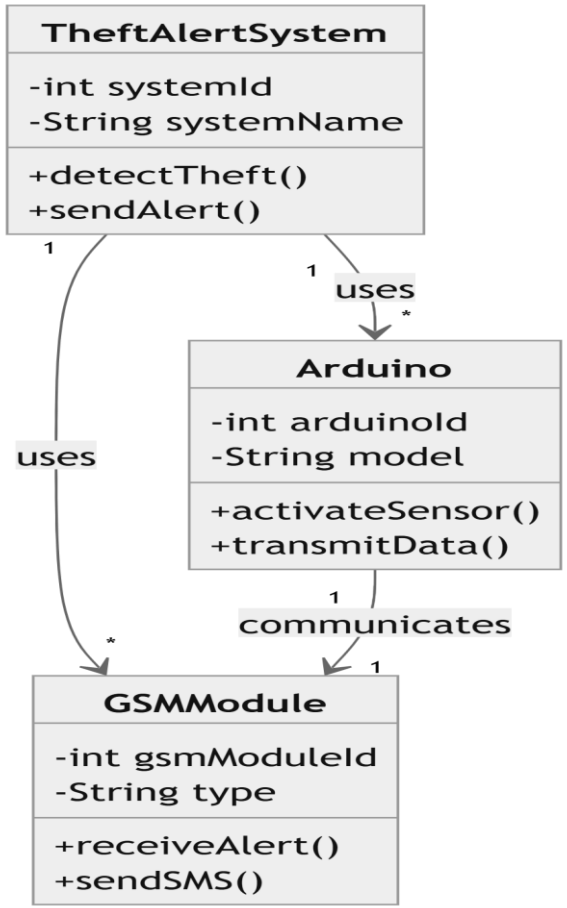
Purpose of Referring:To understand the security frameworks and protocols necessary for protecting IoT-based home security systems from cyber threats.

UML DIAGRAMS

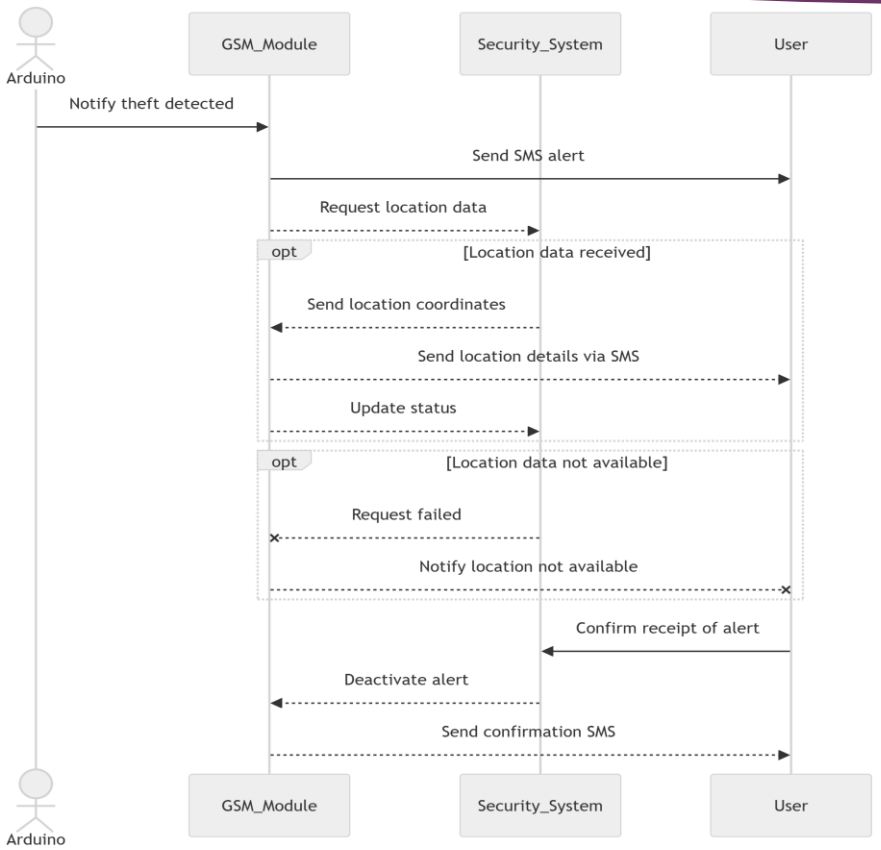
- Use case diagram:



Class diagram



Sequence diagram



Code implementation

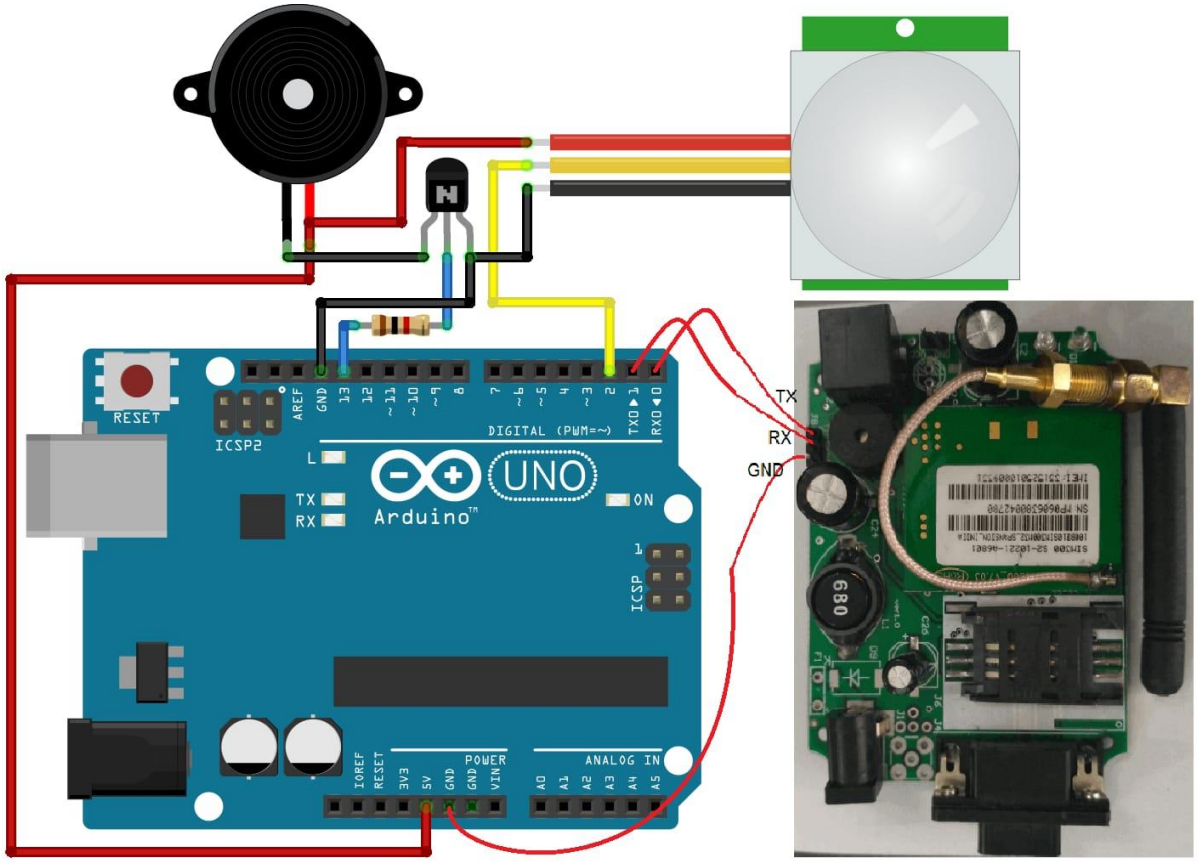
```
#include <SoftwareSerial.h>

// Configure software serial port
SoftwareSerial gsmSerial(2, 3);// RX,TX

// PIR sensor pin
#define PIR_PIN 4

void setup() {
  // Start serial communication
  Serial.begin(9600);
  gsmSerial.begin(9600);

  // Configure PIR pin as input
  pinMode(PIR_PIN, INPUT);

// Initialize GSM module
  delay(1000);
  gsmSerial.println("AT"); // Check if the
module is responding
  delay(1000);
  gsmSerial.println("AT+CMGF=1"); // Set SMS
mode to text
  delay(1000);

  Serial.println("System ready");
}

void loop() {
  // Read PIR sensor
  int pirValue = digitalRead(PIR_PIN);
```

Code

```
If( pirValue == HIGH) {
  // Motion detected, send SMS
  sendSMS("+1234567890", "Motion detected!");

  // Wait to avoid multiple messages
  delay(10000); // Adjust as necessary to control the frequency of SMS alerts
 }

 delay(500); // Adjust delay for sensor reading frequency
}
```

```
Void sendSMS(String number, String message) {
  gsmSerial.print("AT+CMGS=\"");
  gsmSerial.print(number);
  gsmSerial.println("\"");
  delay(1000);

  gsmSerial.println(message);
  delay(100);

  gsmSerial.println((char)26); // End AT command with Ctrl+Z
  delay(1000);
}
```

Circuit diagram



THANK YOU