IOT PROJECT PROPOSAL

Anti-Theft Fire alarm system

Team name: BigFoot
Team members:
Kurukunda Bhargavi
Ruchita Jujjuru
Nandini Reddy Mudhireddy
Dhulipati Lakshmi Girija

The Anti-theft system along with fire alarm is an IOT project to protect our important belongings from being stolen. It adds additional security to homes, banks, lockers.

Objective:
It is to provide home safety and detect burglary. They provide protection against fire and such threats. We will be mainly focusing on designing a fire alarm and burglary detection by giving an alarm and turning on the lights whenever it encounters a rise in temperature and motion in its vicinity. There will be a motion sensor and DHT11 for detecting motion and temperature. We take the password of the locker through the serial monitor. If the password is correct then we do not activate any buzzer or alarm. If the password is incorrect or there has been no input and we detect a motion, then we activate buzzers and lights to indicate an attempt of theft. If the temperature of the locker exceeds a certain amount, then we give a buzzer with a different tone to indicate fire. If it is possible we would also like to add a camera to snap a picture when illegal access is registered.

Inputs/Physical quantities measured:
Password
Temperature
Motion

Output:
Sound(buzzer) and Light(LEDs)

How we are going to use the input:
We are going to check the password entered through the serial monitor.
1. If the wrong password or no password is entered and there is motion in the locker,
2. If the temperature exceeds a maximum value,

Then we activate our output devices.

Description of the output:
1. In case of fire, we produce BLUE lights and alarm sounds which could help the residents to identify that there is a fire outbreak.
2. In case of burglary, we produce RED lights and different alarm sounds which could help the residents to identify that there could be a theft of their valuables.

Required components:
1. ESP32
2. DHT11
3. LEDs
4. Jumper wires
5. Resistors
6. PIR sensor
7. Buzzer