SMART SECURITY SYSTEM FOR HOMES

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AIM

- Motion or Intrusion detection
- Flame detection
- Capture video of the detected person or object

HARDWARE USED

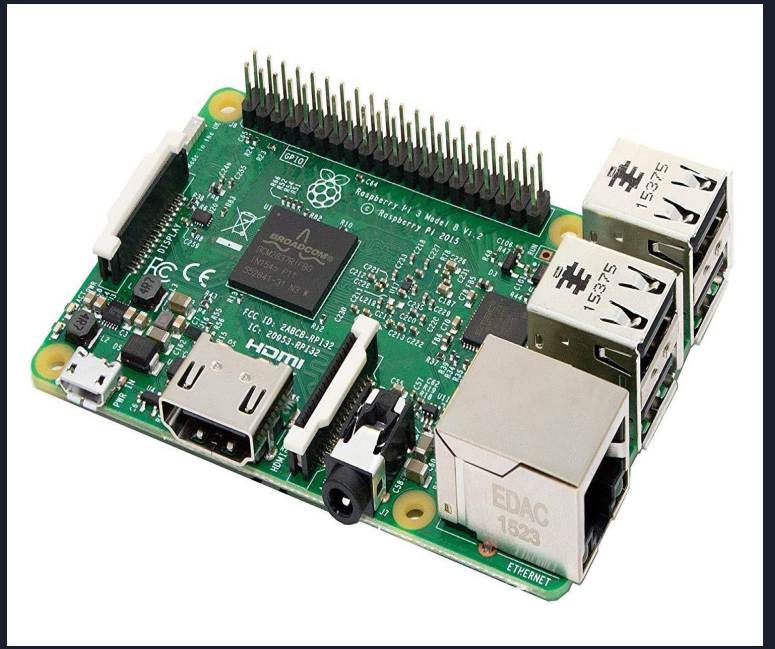
- Raspberry Pi 3 Model B
- Basic Shield
- Bread Board
- IR Proximity Sensor
- Buzzer
- Flame Sensor (HL 01)
- Logitech USB Camera
- Jumper Cables (Male to female, Female to female)
- LAN Cable
- USB mini cable

SOFTWARE USED

- Python IDE
- MIT App Inventor

RASPBERRY PI

The Raspberry Pi 3 Model B is a tiny credit card sized computer.

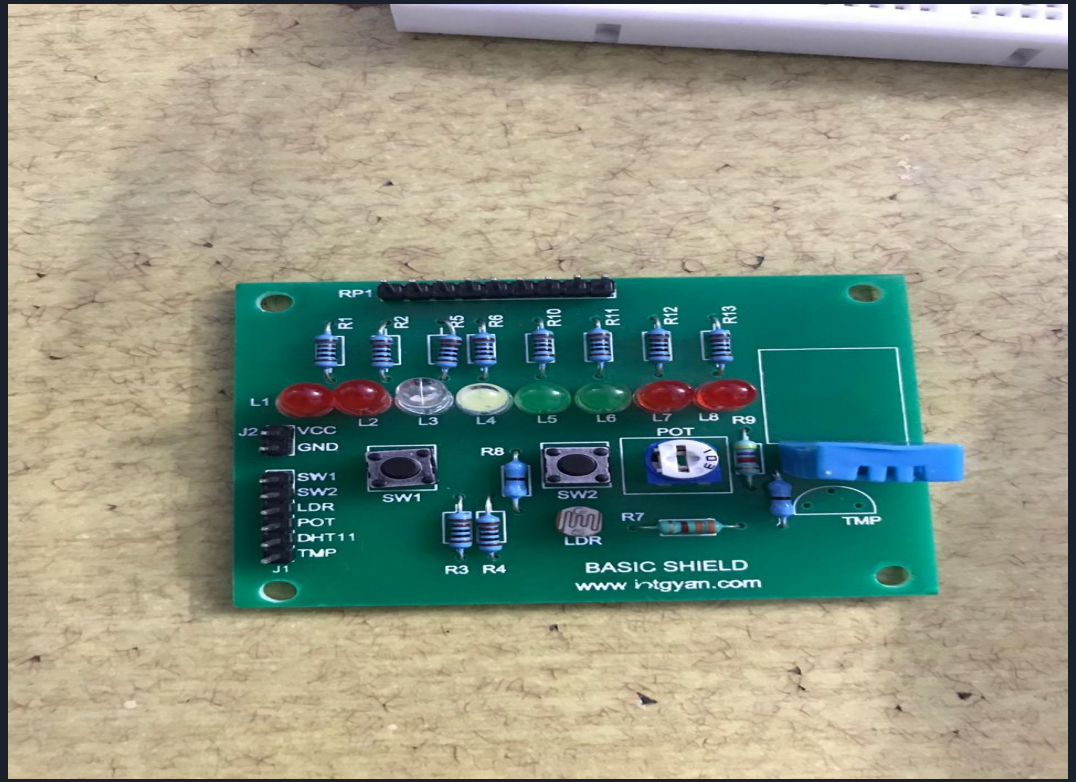


BUZZER

A buzzer or a beeper is an audio signaling device.

Typical user of buzzer includes alarm devices , timers etc.

BASIC SHIELD



LOGITECH USB CAMERA

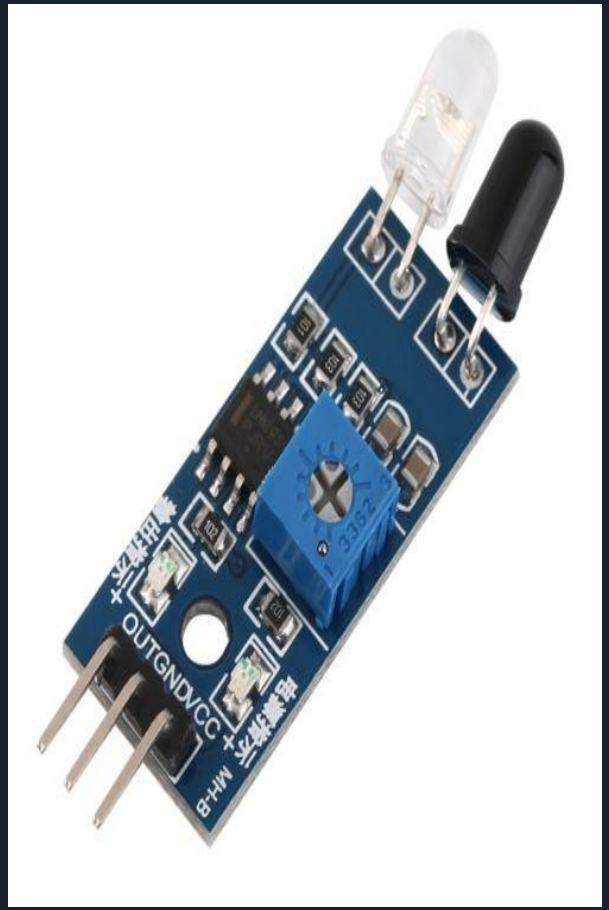
FLAME SENSOR (HL 01)

The flame sensor detects if there is any flame in the house and automatically triggers the buzzer to alert the people in the house.

IR SENSOR

This sensor is used to detect motion.

When a motion is detected, it triggers a buzzer and an LED is switched on and the video stream will be activated which can be viewed on MIT app.

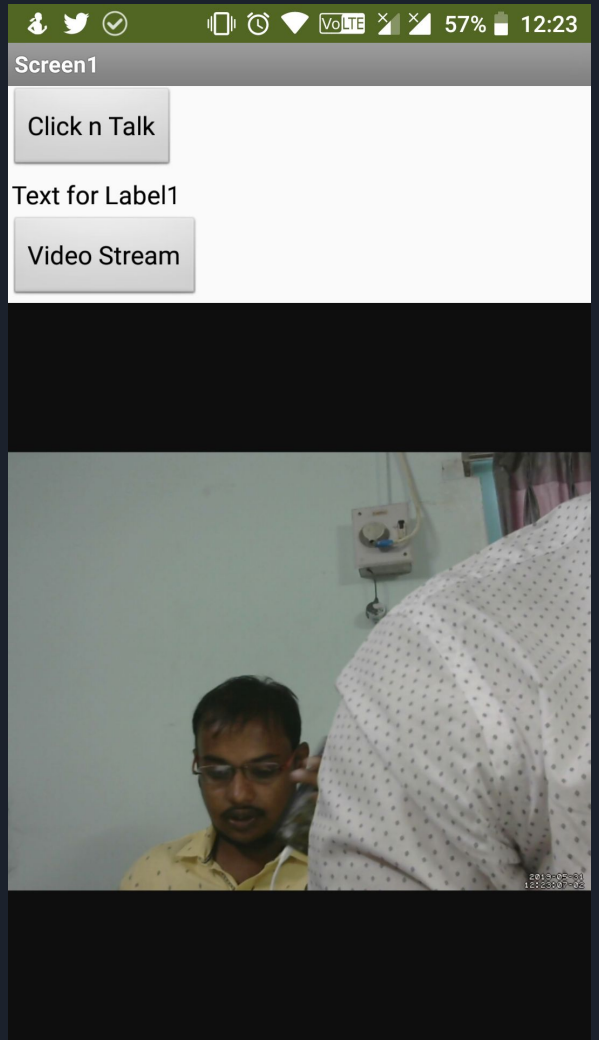


MIT APP INVENTOR

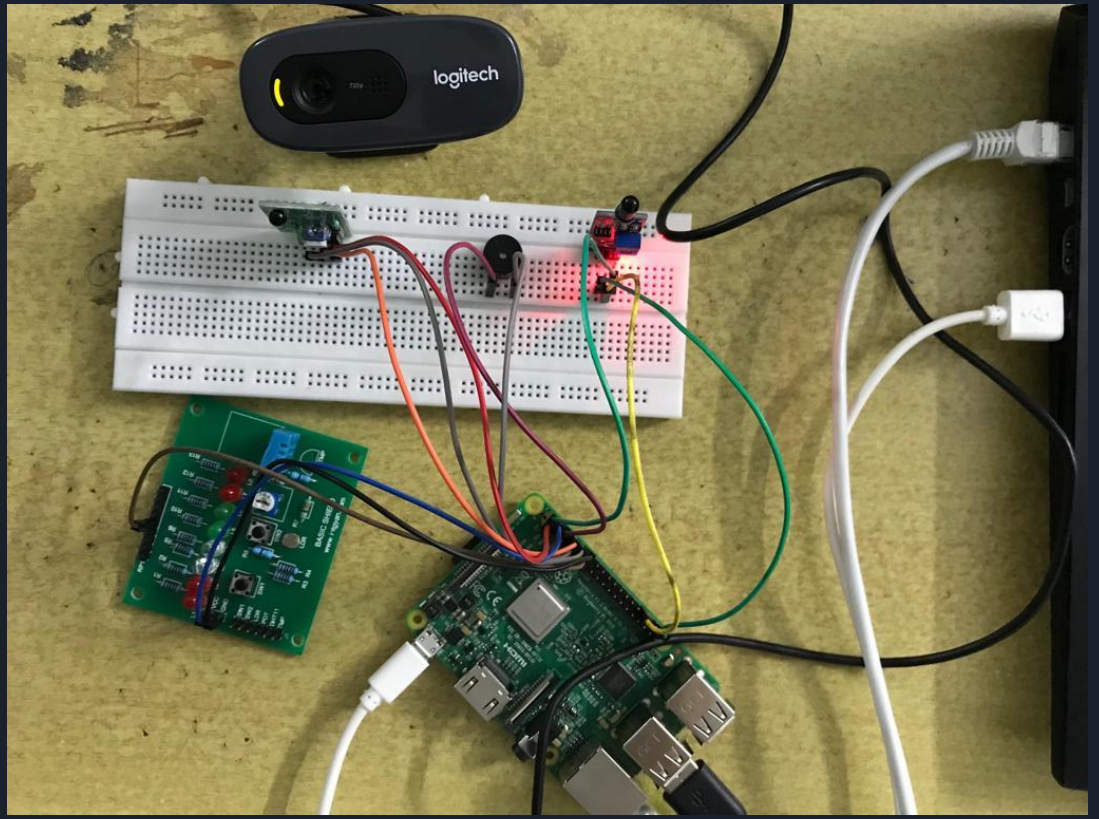
This is the UI of Smart Home security app which is done using MIT App Inventor.

The image on right side displays the live video feed of the security camera.

We can view the video stream by clicking on the Video Stream button



HANDS ON



CONCLUSION

With this project :

- We can detect home intrusion
- Fire detection

DEMO