HOME AUTOMATION SYSTEM SPECIFICATION

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Designed For:

Python project
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Life uncomplicated.

A home automation system is a technological solution that enables automating the bulk of electronic, electrical and technology-based tasks within a home.

It uses a combination of hardware and software technologies that enable control and management over appliances and devices within a home.

Home automation is also known as domotics, and a home with an automation system is also known as a smart home.

The home automation system is a small representation of the imminent future where iot devices will make our lives mush easier and a lot more confortable

- **Objectif of the project :**

  One of the main objectives of the smart home is to ease daily life by increasing user comfort. ... By automating many aspects of daily living through remote technology, a smart home provides the ability to control electronics and appliances from a smartphone, tablet or laptop

- **Functional description of needs:**
  - **Main function : streamline how your home functions**
  - **Sub-functions:**

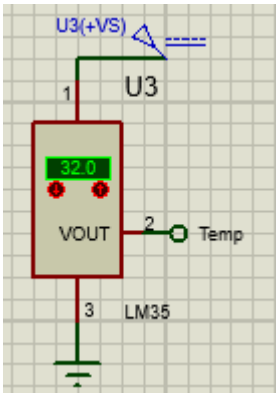
- Climate
- Lighting & Shades
- Fire detection alarm

• Detail By System:

➢ Climate Control

If a person is detected in the room :

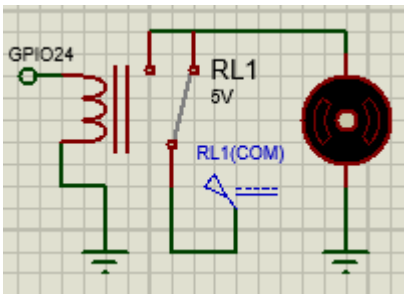
Temprature sensor provided will be <<LM35 precision centigrade temrature sensor>>. Temprature sensor will be able to control the fan, change mode between on/off.



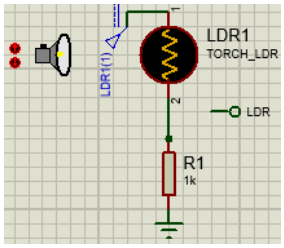
The Temprature sensor will have the following capabilities:

- Adjustment at the Temprature sensor itself
    - The fan will turn on or off depending on if the temprature is lower or higher than 30C°

Which can be changed on the sensor itself (If greater than 30 C° fan on if it's lower the fan turns off)

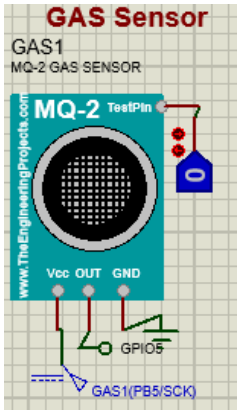


➢ Lighting & Shades



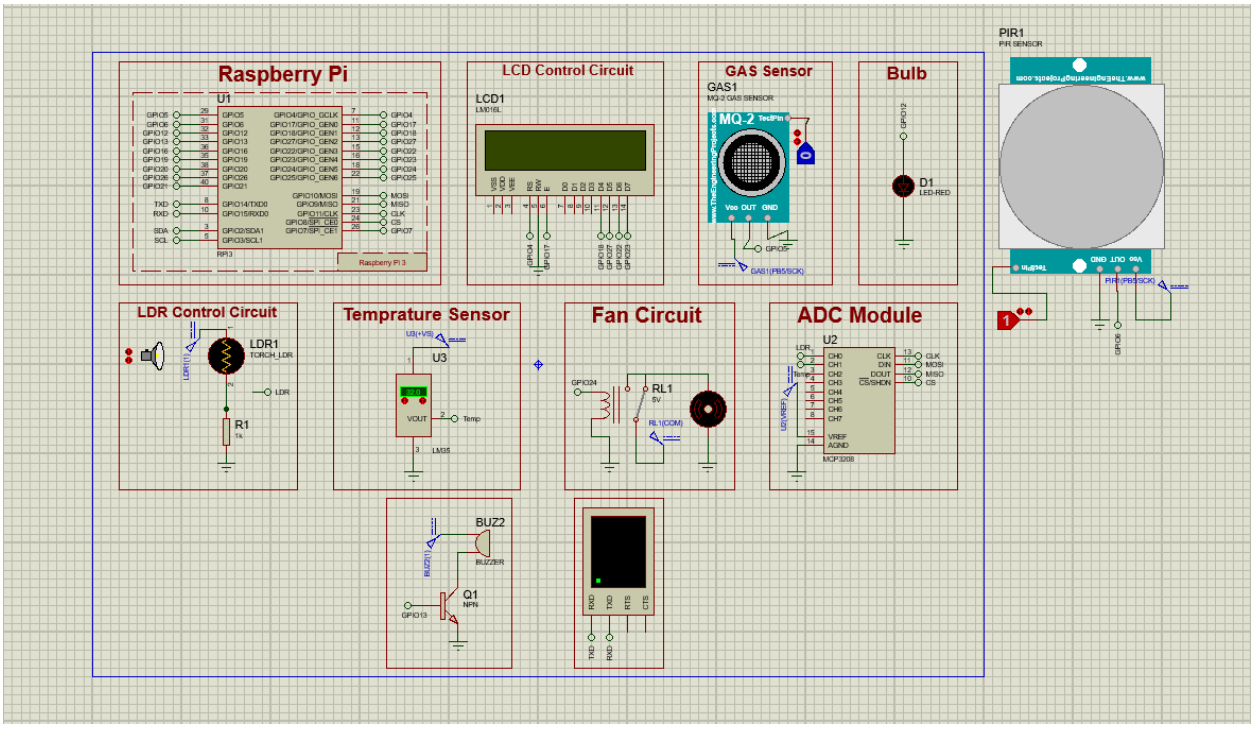
After detecting the person in the room with the PIR SENSOR, the LDR SENSOR will detect the light intensity:
-if the light intensity is low the lights will automatically turn on
-if the light intensity is high the lights will turn off

➢ Fire Alarm



Once a fire is detected with the MQ-2 GAS SENSOR the RaspberryPi sends a message to your phone number also sends off a alarm with a repetitive sound indicating that theres a fire

• Circuit Diagram:



- System flowchart :