

INTRODUCTION

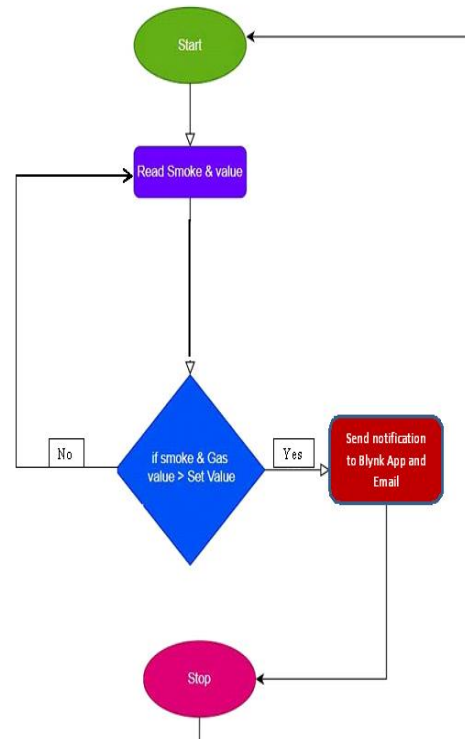
- Household fires are a very dangerous but neglected phenomenon in our society which causes many accidents and pain and sorrow to us and our loved ones.
- Household fires that are caused by leakage of LPG or CNG gases could be prevented by early knowing of the leakage and taking preventive measures against it.
- The following project helps us to know early if the LPG/CNG content of air is higher than the general concentration of air and send a message via Blynk app to us.

OBJECTIVE

The main objectives of the project are:

- To find appropriate sensors for LPG gas detection.
- To select an appropriate microcontroller suitable for the scaled system.
- To design and implement circuit connections.
- Bringing out optimizations in the system and scaling it as per the usage.
- Sending Blynk notifications to the User when there is a gas leakage.

SYSTEM OVERVIEW



EXPERIMENTAL RESULTS

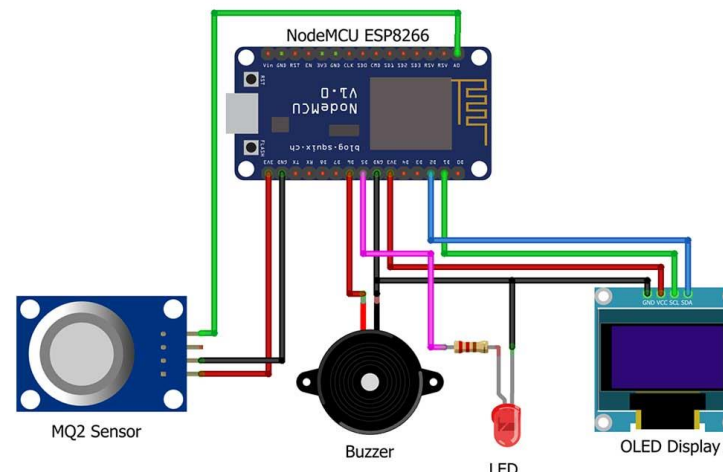


- The voltage that the sensor outputs changes accordingly to the smoke/gas level that exists in the atmosphere. The sensor outputs a voltage that is proportional to the concentration of smoke/gas.

METHODOLOGY

- The MQ-2 smoke sensor is sensitive to smoke and to the following flammable gases:
 - LPG
 - Butane
 - Propane
 - Methane
 - Alcohol
 - Hydrogen
- The resistance of the sensor is different depending on the type of the gas.
- The smoke sensor has a built-in potentiometer that allows you to adjust the sensor sensitivity according to how accurate you want to detect gas.

SYSTEM HARDWARE



CONCLUSION

This device helps to prevent any form gas leakage and helps us to prevent fires from happening. It is a very helpful device that helps us to prevent many hazardous accidents from happening.

REFERENCES

- <https://www.viralsciencecreativity.com/post/mq2-gas-leakage-smoke-detection-system>