

## HAZARDOUS GAS DETECTION SYNOPSIS

Hazardous gas detection is a tool specially developed to detect liquid petroleum gas and natural gas at the minimum concentration of gas in the air is 200 ppm and the maximum concentration of gas in the air is 10 000 ppm. Design and build a prototype gas leak detector controlled by Arduino Uno using an MQ-2 gas sensor to detect the presence of a gas leak and a DHT-11 temperature sensor. In addition, this project uses IoT technology by using the MIT Application to make it easier for users to monitor gas detectors via mobile phones. In addition, this is equipped with a solenoid valve that automatically cuts off the gas flow in the pipe. With the presence of a solenoid valve, the gas cannot spread everywhere because we close the flow. This system is also equipped with a buzzer as a siren for people in the area. With that, we can know there is a gas leak and can save ourselves quickly.

This gas detector can be used in residential areas such as kitchens in our homes. In addition, this gas leak detector is suitable for commercial use such as restaurants, food courts and laundries. Among the advantages of this gas detector is that it can detect two types of gas, LPG and Ng, compared to existing gas detectors that can only detect one type of gas, LPG. The demand for gas detection is currently high due to the widespread use of gas from various sectors. In addition, this project also gives exposure to the community about the importance of gas leak detectors to use because it can avoid any danger of gas leaks that can not only affect users but also other people. In conclusion, this project is very useful to the community in further increasing the level of security in our area.