

ABSTRACT

Security is a thing that is becoming a major problem in building the nation of indonesia. The development of science and technology who strongly support the development of the security that is the security tool. With the gas leak detection systems as well as fire, can help people to reduce fires that occur every time unexpectedly. In this research will be designed a gas leak and fire detection-based arduino with the calling as the report, which is one of very important security tools for everyone. Based on the results of observation of the design of electronic devices, mechanical design and drafting software plus communication tools as a reminder that is communication in the form of a short call. This tool uses a single Flame sensor, one fruit MQ2 and three output or output i.e. LCD, Buzzer and GSM module. Each output or output serves as a marker to give the State is going. Overall, from testing tool designed already working as expected which can run using mechanical devices that comply with the set, which at the time of the sensors detect then it will automatically module GSM will call to the specified number. From the test results it obtained that at the time of testing MQ2 requires 2 minutes to allow the sensor to return to normal, and for the flame sensor maximum distance 100 cm.

Keywords: GSM Module, the Arduino Uno, MQ2 (Gas Sensor), Flame sensor.