ABSTRACT

Disaster is an event that we can't expect before. One example is fires, fires can be triggered by several things, including the human error, electrical short circuit, and the low quality of electronic products. No one can expect when the fires will happen, so it need fast respond to handle fires, so that fires does not become bigger and making it difficult to extinguish. Because of that situation we needed a tool that can send reports of fires at specific locations directly to the Fire Department.

At the this final project, I designed a device that can transmit information about the fires that happen more quickly and automatically, and can call the fire department by phone calls and send the location of the fires by voice recording and also it can send information about the fires to the owner of the house. This device consists of a temperature sensor, smoke detector circuit simulation, microcontrollers, alarm, blowers, GSM modem, and sound modules. When the system detects the occurrence of fire from both sensors, the system will contact the fire department and the homeowner to send a voice recording that contains information about home address via a phone call. In addition to anticipate the situation in the house that was in fires, the alarm and the blower is activated automatically.

The output of this final project is systems that can be applied in a residential complex to anticipate the fires, with reasonable price and a high degree of accuracy sensors, the production cost is Rp.545.000. and temperature sensors are tested and proven accurate.

Key words: fire, microcontroller, sound modules, GSM modem