
摘要

随着信息化时代的到来,越来越多的新电器走进了千家万户。电器设备的增多让人们不得不考虑用电的安全问题,这些问题将会给生活带来巨大的影响。因此,本文基于安全,经济,高效,易扩展,易维护的原则设计了家庭防火防盗报警系统,预防防止灾难发生。

本文基于 STM32 单片机控制的防火防盗报警系统。同时,搭配各种传感器硬件,检测房屋所处的状态。这些感应模块包括了火灾传感器、红外人体传感器、烟雾传感器等,实时的对房间进行监控。采用显示屏 OLED 对室内安全状况进行实时显示。一旦遇到危险状况则立刻向 STM32 处理器发送信号,并通过 SIM800L 短信形式将报警消息发到指定手机上。整个设计可靠性能高,本设计以进行多测点检测、成本低为主要设计理念,可实现家庭必备,更易推广普及。

关键词: 传感器; STM32; 报警

Abstract

With the advent of the information age, more and more new appliances have entered thousands of households. With the increase in electrical equipment, people have to consider the safety of electricity, these problems will have a huge impact on our lives. Therefore, based on the principles of safety, economy, high efficiency, easy expansion, and easy maintenance, this paper designs a home fire and burglar alarm system to prevent and prevent disasters.

This article is based on the fire, fire and anti-theft alarm system controlled by STM32 micro-controller. At the same time, with various sensor hardware to detect the state of the house. These sensing modules include fire sensors, infrared human sensors, smoke sensors, etc., to monitor the room in real time. The display screen OLED is used to display the indoor security status in real time. Once it encounters a dangerous situation, it immediately sends a signal to the STM32 processor, and sends an alarm message to the designated mobile phone in the form of SIM800L short message. The entire design has high reliability and performance. The main design concept of this design is to carry out multi-purpose detection and low cost.

Key words: sensor; STM32; Call the police

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要
下载或阅读全文，请访问：

<https://d.book118.com/248020067024006140>