

DEVELOPMENT OF PORTABLE TEMPERATURE DETECTOR  
using ARDUINO

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## **ABSTRACT**

This paper is about a portable device for temperature detecting based on Arduino UNO board and LM35 temperature sensor. This device allows users to read the real-time temperature value from the sensor; to display the temperature reading at the LCD display panel; the user can set the require temperature to trigger an LED light; Some experimental results are carried out to determine the accuracy and persistency of the device performance.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 BACKGROUND OF STUDY**

Nowadays, fast and real-time temperature monitoring are very important due to the increasing demand on livestock business, medical sectors, laboratories, industries and also in our home to improve their product effectiveness and to comply with the demand [1].

There were many types of method to detect the temperature of an object. For example, the invasive, semi-invasive and non-invasive method [2]. In this paper, we use an invasive method to detect the temperature of an object.

The study found that it is easy to develop the portable temperature detecting device using the Arduino board as the microcontroller. It is easy to use, small, simple, flexible and inexpensive microcontroller board.

This paper will present on the development of the portable temperature detecting device are done using Arduino microcontroller [3], and LM35 temperature. This device is proposed to ease the user to detect temperature at any place and also to overcome the difficulty of detecting the temperature portable.