

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN, ANALYSIS AND FABRICATION OF  
MINI CLOTHES DRYER**

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## **ABSTRACT**

Clothes dryers are equipment or machines that are often used to dry by removing moisture on clothes such as clothes, pants, sheets, and socks after being washed in the washing machine. Many dryers are made up of a rotating drum called a "tumbler" through which heated air is circulated to evaporate moisture while the tumbler rotates to keep air space between the articles. This machine is a solution to the problem of clothes in damp conditions and is ideal for saving energy and electricity whenever possible. It can be used by everyone but is more recommended to students because of its affordable price compared to a large clothes dryer. Besides, the small size of the machine makes it easy to carry anywhere and very helpful if the weather is rainy on that day. This machine is also designed in a simple way to make it easier to use.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Electricity and gas are the two basic types of clothes dryers based on the primary fuel source for heating the air. Hot air produced by the heat source is drawn through tumbling clothes inside a rotating drum and exhausted through ducting that transports the hot damp air outside in both types. Dryer designs have been improved since their introduction to the market in order to improve efficiency and safety. Humidity sensing components to automate drying times and multiple thermostats for over-temperature protection have been added as improvements. While the humidity sensor increased efficiency, thermostats increased dryer safety. The temperature in the dryer is controlled or limited by these thermostats. Except for the heat source, the major components of electric and gas dryers serve the same purpose.

In an electric dryer, the heat source is a 240V-powered heating element, whereas in a gas dryer, the heat source is a gas burner. All other components in electric and gas clothes dryers, including the motor that turns the drum and circulates the air and the control timer, are powered by 120 volts.