

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
DOUBLE AUTOMATIC CAN
CRUSHER**

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ABSTRACT

The invention of a can crusher machine in this project is to reduce the wasted storage space occupied by the many amount of use aluminium can at the commercial establishment like in the groceries, restaurant and bar. So basically, can crusher machine be operated in manual effort and time in the cane crushing process. Shrinking the initial volume of empty used-aluminium cans down to 50% in more effective, faster and effortless way, as well as to develop a low-cost device that is suitable for the small-industry usage are mainly the objectives for the Double Automatic Can Crusher, where an automated process is executed in Double Automatic Can Crusher due to the automation in the modern world is nominal to be used. The Double Automatic Can Crusher is run by Motor Ac and Batteries. Overall, the system can be controlled manually through the push start and stop button as well as using the Human Machine Interface (HMI), for displaying the total of cans being crushed per day. The average result of empty can could shrink from 31% to 60 % of the original value, by using motor Ac and gear for this system.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Nowadays, in new era beverage such as carbonated soft drinks, juices, alcoholic beverage, and energy drinks are made up from aluminium and it's proven that 75% of worldwide production of beverage come in aluminium like coca cola, Pepsi or 100plus. So, the recycle aluminium from the drink cans are one of the recycling items, to preserve our limited natural resources and protect our environment from run out of aluminium. Other than that, recycling not only can help to keep the environment safe and landfills clear but can also help to save our energy to find aluminium resources. If factory produce a new aluminium beverage can by using a recycled aluminium, it uses 95% less energy and emits 95% fewer greenhouse gases than when a new can is made from new materials.

1.2 Problem Statement

The problem statement from this project is the current product of crusher only can crush one tin in a time. So, it takes a long time to finish crush the tin. Other than that, the previous product has use manually way to crush one tin. So, it needs human energy to crush a tin and this product is not very suitable for disabled people and old people because they do not have enough energy to crush many tins.

1.3 Objectives

The main objectives of this project are:

- a) To help people to crush the tins without use their energy.
- b) To finish this proposal and succeeded to create the automatic can crusher.