CHAPTER 1

INTRODUCTION

1.1 Background

The project involves designing and fabricating a multipurpose rack structure. As the Diploma final year project allocates the duration of 1 semester, this large man-hour project therefore requires significant efforts of the students to participate. Basically the can opener could be divided into three stages, which are concept safety, designing and fabrication.

The multipurpose rack structure is equipped by using material which include, rectangular plate steel, wood and zinc in manufacturing process by perform drive to join the parts and etc. The advantages of the proposed multipurpose rack structure to be developed can be seen to be decorating a house.

The process of development is initiated from designing the shape of the product by considering the function as well. In order to produce more safety product that is suitable to the consumer, consideration to the ergonomic factor is taken into account. It involves the measurement process before the materials are cut into pieces before joined together.
1.2 Problem Statement

The problem statements of this project are:
(a) Material Factors – To produce a good product must select a good material.
(b) Safety - Some of the rack have a sharp edge which not be covered.
(c) Human factors - People needs comfortable holder to hold.
(d) Design factors - Selection of sliding part and magnet terminal.

1.3 Objective

To design and fabricate the multipurpose rack structure with mechanical skills.

1.4 Scope

The scopes of this project are:
(i) Design the multipurpose and portable rack
(ii) Magazine only fit o the small magazine.
(iii) Rack like furniture which can place anyplace.
(iv) Max rack load only 5 kg.
(v) Can put anywhere of house area.