CHAPTER 1

INTRODUCTION

1.1 PROJECT BACKGROUND

Every bunch of cutting oil palm fruit will cause at least 5% fruit fall separated on the land. This oil palm loose fruit usually will collect by using hand or rake before put it into sack or container. This conventional method need the workers to sit squatting or bow. This way the workers will faced sick back problem. Nevertheless, the production of the collecting just a few about 200 kg. Besides, the using of rake the production of collecting was about 300 kg, but there were mixed with rubbish. The average weight of rubbish was about 50% with the weight of loose fruit.

From the research by Malaysian Palm Oil Council (MPOB), the loose fruit was distributing about 50% from the total percentage of oil from the bunch of coconut palm. Therefore, if the loose fruit was not collect it will reduce the rate oil production. To prevent this happen, the designed and developed a kind of product that will solve the problem as it will collect the loose fruit. This product named Handy Disc Loose Coconut Palm Collector.

The added portability features like light weight to this product that will make the workers easy to carry it to everywhere due to the surface of land at the oil palm plantation. Besides, this product just only used non-permanent joint. By this, it was easy to maintenance. The factor of storage was also been consider to help the workers store it by no need use wide space.
1.2 PROBLEM STATEMENT

At this time the workers still using the conventional method. This is because there were no specific tools that use in widely to collect the coconut oil palm loose fruit. Besides, the conventional method was take a long time to collect the loose fruit. By this conventional also cause the workers always sick back by collect the loose fruit in a long time. Nevertheless, the using of hand to collect the loose fruit will expose to danger. This because we do not know what have on the land.

1.3 OBJECTIVE

From the problem statement I have come out with objective which is :

i. To design Handy Disc Coconut Oil Palm Collector.
ii. To fabricate the Handy Disc Coconut Oil Palm Collector.

1.4 PROJECT SCOOP

i. Drawing process by using the Solid Works software.
ii. Design the Handy Disc Coconut Palm Collector that consist of features
   a. Portability
   b. Storage
   c. Durability
   d. Easy to handle
iii. Fabrication process by using engineering technique.
   a. Drilling
   b. Cutting
iv. The product can function efficiently
CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter it will discuss about the method that use on this day. Nowadays, the workers still use the conventional method like collecting by using hand, using scoop and basket and by using rake. In everything that people give an effort to do, there will be always an advantages and disadvantages. So, in this chapter it also will discuss about the advantages and disadvantages of each the method.

2.2 CURRENT'S METHOD

i. Collecting by using hand.
ii. Using scoop and basket.
iii. Using rake.