CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This chapter will be review about the project background, problem statement, objectives and the project scope. Gantt chart for the project flow is also been included in this chapter.

1.1 PROJECT BACKGROUND

A tandem bicycle is designed for two riders and colloquially referred to as a "bicycle built for two". Interest in tandems has generated enough business to attract a number of reputable manufacturers, according to many tandems manufacturing centre. Many tandem bike riders are looking for companionship on a cross-country sightseeing trip, spending more time with their spouse or children or are looking at more of a sports activity. Tandem bikes come in a wide range of styles and models to suit touring, road racing, leisure rides or mountain biking. Tandem bicycle adds a whole new dimension to cycling. A tandem allows two cyclists of differing strength and ability to ride together, pleasurably. The front rider named as Captain and Stoker.
for the rear rider. The faster rider doesn't need to wait for the slower one besides the slower rider doesn't need to struggle to try to keep up with the faster rider. A tandem also turns the basically solitary, individualistic activity of cycling into an mutual experience that may be shared by a couple besides allows handicapped people who couldn't otherwise ride a bicycle to share in the joy of cycling.

1.2 PROBLEM STATEMENT

In manufacturing of the tandem industries, manufactures focused on the quality and productivity of the tandem. But most of the tandem product nowadays got a few minor problems. Like nowadays, the tandem bicycle team needs to coordinate their cadence like the speed at which the pedals are turned for makes that both cyclists are comfortable. The Captain will choose the pace by the gear speed she/he chooses to use. A faster cadence is on the whole a better, more effective technique and kinder on the old knee joints, however it is no good if they other rider is uncomfortable and unhappy. The partner must do it simultaneously. Often the weaker or less experienced rider will want to coast more to start. Besides if the second riders feel tired to make a stroke for the second pedal, there will be no place to rest their feet while the other one keep stroke the first pedal and vice versa. Second problem for the tandem nowadays is it’s contained no family characteristics. Many tandems has been designed for sport, pair and other than family activities. The third and the last problem is tandem is one of the rare item sold in our country as the price of a tandem is very expensive.

1.3 OBJECTIVES

The objectives of this project are to design and fabricate a tandem bike: rear part.
1.4 PROJECT SCOPES

The scope that has been decided for this project is to create a bicycle that can be used for the child and also the older besides being used for a recreation with the family members. For the older this product also must be comfortable enough to be use.

1.5 GANT CHART

Gantt chart shows a full planning for my project flow. The planning is made as a guide for me so my project can be completed according to the time given. There is much a waste of time for me during the designing process because of lack of idea for a new design of a tandem that is different from the other tandem in the market nowadays. The Gantt chart can be referring to the appendix B.

1.6 THESIS ORGANIZATION

Chapter 1 will be review about the project background, problem statement, objectives and the project scope. Gantt chart for the project flow is also been included as a direction guide for my final year project.

Chapter 2 will go through about the background study and the research that has been made related to my final year project. This chapter will review about the products in market that are related to my project.

Chapter 3 will go through about the flow chart for this project from the starting until the end process of the project and also included with the concept design generated for this project.