CHAPTER 3

METHODOLOGY

3.1 Introduction

This section will show design for the test bed that made by using Solidwork software. In this section also will briefly describe the ways to make the test bed. This includes the selection and preparation of materials, equipment setting such as sensor and measuring device. This is very important to determine the best and accurate result for this study. Other than that, in this section also briefly explain the way how the study being conducted, which is by doing experiment to obtain data from test bed.

This research study was conducted based on the methodology. This methodology plays an important role in implementing this research study accordingly. The details of the methodology are explained in detail in this chapter.
3.2 Methodology Process Flow Chart

Figure 3.1: The methodology process flow chart
3.2 Test Rig Modelling Using Solidworks

This section will explain more details about the design of the test rig. This design is made using Solidworks. Solidworks is a 3D mechanical CAD (computer-aided design) program. SolidWorks helps mechanical engineers design products. SolidWorks does this by making it easy for the designer to visualize and communicate a 3D concept. The designer can make changes to the design, validate the design against requirements, and prepare the design for production in manufacturing. It uses a mouse-driven graphical user interface to enable engineers and designers to visualize and communicate 3D models of manufactured objects. SolidWorks works extremely well for mechanical design and similar industries requiring precise definition of 3D shapes and their design intent. It is very popular because of its unprecedented balance of power and ease-of-use.

The parts of the test rig are made one by one before assembly it according to actual size. The assembly design as shown in Figure

(a) Top View