CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

In fabricate of push button coconut palm, there are several step must be follows. In this part, all students should be understand why chosen the material and why must chose the particular methods used to characterize the material. Methodology is important before make the product. In fabricating process, it is include about measuring, transferring, punching, joining and finishing process. We should know a chronology of project until it finish. Others, students must clearly about the objects and equipment that used in making a project.

3.2 PROJECT FLOW CHART

For the diagram as shown as below, the project starts with title given from supervisor. Push button coconut palm collector was given. The project continued by finding the project objectives, problems statement and scope following by collect the data about the project. In this session, all the information was searched in the internet.

After that, the project continued by making the literature review and research about the title. This consist a review of the concept of current palm oil collector, collector system, collector features and type of current product. These tasks have been done through research on the internet, books and others sources.

Next, after gathering all the relevant information, the project undergoes design process. In this step, from the knowledge gather from the review is use to make a sketch design that suitable for the project. After several design sketched, design consideration have
been made and one design have been chosen. The selected design sketched is then transfer to solid modeling and engineering drawing using Solid Work program. The materials and the measurement needed for the push button coconut palm collector listed down and calculated to give an ergonomic shape of the push button coconut palm collector.

Therefore, after the needed material is listed, acquisition step take places. There are only a few materials that need to buy such as bolt and nut, holder and nails. Some of the needed material is well-prepared by the university.

Besides that, after all the parts needed has been gathered, the project proceeds to next step that is fabrication process. The finished drawing and sketching is used as a reference by following the measurement and the type of materials needed. The fabrication process that involved is cutting, welding, and drilling. If all the parts had been processed, the parts are joined together to produce full-scaled push button coconut palm collector. Here come the testing and evaluation process. The push button coconut palm collector will be test to see if it fulfills the requirement such as ergonomic aspect, safety, strength and maneuverability

After all the parts had been joined together, here comes the last phase of process that is data discussion. In data discussion, the draft report and all the related articles are gathered and hand over to the supervisor for error checking. The finish product will be compared with the report to make sure that there is no mistake on both project and report.

Next, after the product and the report had been approved by the supervisor, the report is rearrange and print out to submit at the supervisor, the project coordinator and faculty of Mechanical Engineering. In this stage, the final presentation was also being prepared and waited to be present.
Figure 3.1: Project Flow Chart