CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

For this chapter, it is about discussion of the project background, problem statement, objective of the project, and lastly scope of the project.

1.2 PROJECT BACKGROUND

Clamp is a holder to hold the workpiece while doing a process. It's very important to make the position of the workpiece in static position. The magnetic clamp is the better device to hold the workpiece because it is portable and heat resistant but it is very expensive to buy at the market. From there, the goal of this project is to reduce the cost of production of the magnetic clamp and try another method to demagnetize the power of the magnet.

1.3 PROBLEM STATEMENT

The conventional clamp can give damage to the workpiece. The clamp also difficult to remove after welding process because it's hot. Try to use magnetic system method to replace conventional clamp.

1.4 OBJECTIVE

- Study on current conventional magnetic clamp.
- Design and fabricate an on/off magnetic clamp to replace conventional clamp.

1.5 SCOPE

- Designing process use Solidworks Software.
- Fabrication process use basic engineering technique like milling, drilling and mechanical joint.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

For this chapter, it is about the introduction of magnet and the type of clamps that already have in the market and description of the clamps. This chapter also describe about material selection to produce the project.

2.2 INTRODUCTION OF MAGNET

Magnets are an important part of our daily lives, serving as essential components in everything from electric motors, loudspeakers, computers, compact disc players, microwave ovens and the family car, to instrumentation, production equipment, and research. Their contribution is often overlooked because they are built into devices and are usually out of sight.Magnets function as transducers, transforming energy from one form to another, without any permanent loss of their own energy. General categories of permanent magnet functions are: