CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter will discussed about methods and procedure taken order to fabricate of automotive body part using carbon fiber.

Before start on fabrication process,

1) Have automotive parts that want to be change to fiberglass part. Automotive parts are consists of 4 which is in different shape. First is box shape which is car accessory, second is curve shape which is side mirror of motorcycle. Third is flat shape which is oil cover car part. Last is curve shape which is body part of motorcycle.

2) Prepare the materials that needed. The materials are sellotape, resin, hardener, fiberglass, carbon fiber, brush, scissor, glove, cups, stick, abrasive paper, polish, wax polish, compound.
3) Fiberglass. The type of fiberglass is E-glass which is good tensile, compressive strength and stiffness. Good electrical properties, low cost and most common use. The resin that we used is polyester resin which is widely used and low cost.

4) Carbon fiber. The type of carbon fiber is 3k and the resin is epoxy resin which is highest performance resin at this time. Epoxies is generally greater capability, very reliable and strong.
3.2 PROJECT FLOW CHART DIAGRAM

Figure 3.1: Flow chart
3.3 MATERIAL SELECTION

Material that needed for fabrication of glass fiber and carbon fiber are sellotape, resin, hardener, fiberglass, carbon fiber, brush, scissor, glove, cups, stick, abrasive paper, polish, wax polish, compound.

Figure 3.2: Fiberglass

Figure 3.3: 2nd polish, 1st polish, compound

Figure 3.4: The materials