

# MARA UNIVERSITY OF TECHNOLOGY



## FACULTY OF MECHANICAL ENGINEERING

### DIPLOMA IN MECHANICAL ENGINEERING (EMIIO)

#### FINAL PROJECT REPORT (KJM 365)

#### PROJECT: EXTREME GLIDER

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## **CHAPTER 1**

### **1.0 INTRODUCTION**

Final year project (KJM365) is compulsory course that has to be taken by all students studying Diploma in Mechanical Engineering (EM110). One of the purposes of this subject is to expose student on the working environment that then, they will face after graduating from UiTM.

This report is based on the project that we have been done to complete the course of KJM 365. These reports also define the important of this course to be taken by all the student of Diploma in Mechanical Engineering in their final semester. We believed that this course could give the student more knowledge and new experience especially in operating machine tools. Beside that, we also believed that through this final project, student would get an opportunity to apply their theoretical knowledge into practical skills and applications.

For this course, we have decided to produce an extreme glider.

## **OBJECTIVES of FINAL PROJECT (KJM365)**

To expose students to workshop operation such as:

- o Cutting process
- o Machining process
  - Turning
  - Milling
  - Drilling
  - Grinding
- o Joining (Welding)
  - Arc Welding
  - Gas Welding
  - Metal Inert Gas Welding (MIG)
  - Tungsten Inert Gas (TIG)
  - Resistance Welding
- o Bending Process

To train students to work life. Most of our students just know the theory, but do not know the practical. Thus this course will expose students to practically learning about the application and skills.

To train students to plan systematically before a project be implemented in order to produce a quality product and useful.

To introduce students on how to use tools, machines and the applications correctly.

To practice students to follow the rules and regulation of safety when operating machines and workshop equipments.

- To practice students to do research first about raw materials and manufacturing processes that should be used. It is also to practice students to settle up any problems appear during the processes in progress and supervise by lecturer.
- To show the examiner that the students are able to run a project with all knowledge, this had been learned and able to apply it until the product - completely done.
- To train the student working in-group.
- To train students in technical drawing.
- To give opportunity to all students to fully in use all machines available in the workshop.
- To improve all the disadvantages and limitations of the product that already exists.
- To practice students in safety by compulsory them to wear workshop uniform.