SECTION 4.0 DESIGN AND IMPLEMENTATION

In this section, we detail the design and implementation process of this project. We document the mathematical analysis of the design process, the consideration and selection of the materials for the design of the incubator, and the consideration of the factors that we intended to optimize. We also outline the process involved in the implementation of the design methods to realize the working incubator and other vital functional parts of this project.

4.1 THE INCUBATOR STRUCTURE

The incubator structure is the physical structure that houses all other physical components pertaining to the design of the incubator. It is the structure which provides the chamber for the eggs during the whole incubation period.

The incubator structure design involved separately designing the individual part that will be put together to realize the complete incubator structure. Some of the individual parts of the incubator structure design which will be further detailed in the documentation below include the, tray support, door panel, back panel, side panels, top and bottom panel. These individual parts have been designed with specific design details in mind.

4.1.1 TRAY SUPPORT

As can be seen in the figure below, the tray support is considered as the skeleton of the incubator structure. The tray support is the frame that supports the

