Embedded Systems and Development  
600085  
Students Individual Report

Student ID: 201602395  
December 2019

## Due Date: 13 December 2019

Word Count:

# Introduction

The task for this project was to create a Green House Control system using the PIC QL200 development board and other necessary hardware components. Towards the beginning of the project it was realized that to complete this task, a series of drivers would need to be created to interact and use different hardware components available. From this understanding, it was decided to assign each group member with the creation of a set of drivers.

The list of drivers needed are as follows:

* Button Matrix
* Buzzer
* EEPROM
* LCD
* Push Buttons
* RTC
* Thermometer

Once all drivers were created and tested, it was then possible to start putting these components together with the right logic to produce the Green House system requested.

# Artefacts Produced

This section will detail the purpose and features of each driver created by this group member. The following are the allocated drivers to be created and tested:

* Button Matrix
* Buzzer
* EEPROM
* LCD
* Push Buttons
* Thermometer

To complete the creation of each of these drivers, it was decided that each driver would be created in its own “prototype” project folder so that it could be experimented with verified for completeness before it was implemented into the main project.

design, code and test output that you were involved with

Go into detail about each driver, how easy it is to use, fluent, whats needed to use it.

# Testing Performed

Early part of the project it was realsied that method of debugging this system would not be conventional, as in using a normal debugger as working with hardware. A way of testing outputs would need to be designed. USED 7 seg display and eventually LCD.

how the sub systems that you created were verified and validated

How I tested each driver.

# Critical Evaluation

Creating the program to use multiple API’s allowed for a much simplified implementation.

Also a much easier way of maintain and fixing the system

Learn to delagate workloads more fairly.

Conclusions drawn, usefulness of techniques, lessons learnt