



ENSC 305W/440W

Test Plan:

Omega Key

Team Members:

David Pallmann
Frank Tran
Chase Kwak
Steven Luu
Steven Timotius
Steven Liu

Contact Person:

Chase Kwak – ckwak@sfu.ca

Submit to:

Dr. Andrew Rawicz – ENSC440W
Steve Whitmore – ENSC305W
School of Engineering Science
Simon Fraser University

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1. Introduction

The Omega Key is targeted to a wide audience including professional and recreational usage. With this in mind the following test plan will ensure a high level of performance and usability. The integrated system testing will be performed on the final proof-of-concept model to confirm its functionality.

2. System Test

Test	Test Method	Expected Results	Results
Detection and output	Press all the keys individually and see if the firmware is able to detect a keystroke signal from the corresponding keys.	According to [R40 - II], the firmware will be able to detect a signal from the keys and outputs the appropriate characters in Notepad.	Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Comments			
Layout	Set the layout of the keys using the firmware and observe the results on the corresponding keys.	The layout from the firmware is shown on the corresponding displays and each key shows the proper character with accordance to [R43 - I].	Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Comments			



Switching Layouts	Implement a set of 3 layouts on the microcontroller. The preset buttons will then be pressed to cycle through the various layouts. For each layout each key will be pressed to see if the output character matches the character on the display. The accuracy of the layout, character accuracy, and the time it takes to update the display will be recorded.	The keys of the system should be properly configured to match the characters of a new layout within 4 seconds of the preset button being pressed. All the keys will output the corresponding character on the display when the layout is changed.	Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Comments			
Prolonged Usage	Spend roughly two minutes continuously typing on the OmegaKey while observing the level of comfort and typing experience.	The keys should feel secure, intuitive, and responsive while typing.	Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Comments			