

Lab 2 : Getting Familiar with the LPC1768

INTRODUCTION

This lab we will build a simple game (we will develop more complex games later!) to become familiar with reading from buttons (via the joystick), and outputting to LEDs and simple text to the LCD panel on the mbed application board.

THE GAME

The game you are to develop will randomly flash briefly one of the 4 LEDs which will correspond to a direction on the joystick (all 4 leds flashing will be the centre press). If the player gets the right direction within a defined reaction time then another will flash which the player must again get. The player must do this successfully 10 times to win the game. The LCD panel will display a simple message letting the player know if they have won and if the game is waiting to start. A player pressing the centre button will begin the game from the resting state.

ADDED FEATURES

1. Increase the number of attempts to 15 and have each successive attempt blink more rapidly (i.e. give the player less time to react).
2. Introduce lives into the game that deplete upon each unsuccessful attempt (3 lives for example).

Upon completion show me your work if you get this all done!

USEFUL LINKS

Mbed application board code:

<https://os.mbed.com/cookbook/mbed-application-board>

Mbed code repository:

<https://os.mbed.com/code/>

Mbed cookbook:

<https://os.mbed.com/cookbook/>