

HOMework 1

Changing LED Blink Time by Using Buttons

In this homework, **KEY1(RB0)**, **KEY2(RB1)**, **LED1(RC1)** will be used.

At the beginning, LED1 needs to be turned on and off for 500ms. If KEY1 is pressed, blink time must decrease by 100ms and If KEY2 is pressed, blink time must increase by 100ms. Blink time should not be out of range between 0ms and 1000ms. In other words, blink time must not be smaller than 0ms and greater than 1000ms. (Hint: You can set limit to blink time by using if-else statement)

Write the “**main.c**” code that achieves the desired functionality above in MPLAB X IDE program by using example projects.

RECOMMENDATIONS AND WARNINGS

PIC18F4520 examples and documents about PIC18F4520 development board can be found at following website: <https://github.com/burakenez/PIC18F4520-MPLABXProjects>

Firstly, copy the code that you wrote in your “main.c” file to <http://www.planetb.ca/syntax-highlight-word> website. Select “C, C++” in Languages, Click Show Highlighted button. New webpage will be opened and your code will be regenerated with line numbers. Copy everything in this page to Word to use in your report.

You need to put comments to necessary parts of your code by using “//” and “/* */”. Bring to laboratory a hard copy of your homework which includes the **names and numbers of group members** and “**main.c**” file that you used in your project which must consist **comments** in it.

You can do this homework as a group. However, while homework is controlling, code related questions going to be asked to all of the members of the group. The ones do not have any effort in the project will not be getting any grade. **Tolerance to the cheating is zero.** Both groups will take zero as grade if they cheat.

At the laboratory time, your code must be uploaded to your microprocessor and it must be ready to run while homework control process. When your turn comes, you need to show your working system first.