**Date Submitted: 09-30-2018**

**Task 00: Execute provided code (No submission required)**

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**Task 01: Change the delay of the LED blink (approx. 0.425 sec) by changing the delay and clock source and configuration**

**Task 00 time on: (1/40MHZ) \* 2000000 \* 3 CPU Cycles = 0.15s = Half period**

**Task 00 period: Period = 0.15s \* 2 = 0.3s**

**Task 01 time on: (1/20MHZ) \* x \* 3 = 0.425s = Half period**

**X = 2833333**

**Task 01 period: Period = 0.425s \* 2 = 0.85s**

Youtube Link: <https://youtu.be/PORGFmCeqGM?list=PL5RuXbzEXwesM1VFSxaHMmxf1KU3_x1AR>

**Modified Code:**

//task01: Change the delay of the LED blink (approx. 0.425 sec) by changing the delay

// and clock source and configuration

#include <stdint.h>

#include <stdbool.h>

#include "inc/hw\_memmap.h"

#include "inc/hw\_types.h"

#include "driverlib/sysctl.h"

#include "driverlib/gpio.h"

uint8\_t ui8PinData**=**2**;**

int main**(**void**){**

SysCtlClockSet**(**SYSCTL\_SYSDIV\_10 **|** SYSCTL\_USE\_PLL **|** SYSCTL\_XTAL\_16MHZ **|** SYSCTL\_OSC\_MAIN**);**

SysCtlPeripheralEnable**(**SYSCTL\_PERIPH\_GPIOF**);**

GPIOPinTypeGPIOOutput**(**GPIO\_PORTF\_BASE**,** GPIO\_PIN\_1**|**GPIO\_PIN\_2**|**GPIO\_PIN\_3**);**

**while(**1**){**

GPIOPinWrite**(**GPIO\_PORTF\_BASE**,** GPIO\_PIN\_1 **|** GPIO\_PIN\_2 **|** GPIO\_PIN\_3**,** ui8PinData**);** //turn on LED

SysCtlDelay**(**2833333**);**//delay

GPIOPinWrite**(**GPIO\_PORTF\_BASE**,** GPIO\_PIN\_1 **|** GPIO\_PIN\_2 **|** GPIO\_PIN\_3**,** 0x00**);**//turn off LED

SysCtlDelay**(**2833333**);**//delay

//update to new LED. If at the last LED reset back to first.

**if(**ui8PinData**==**8**){**

ui8PinData **=** 2**;**

**}**

**else{**

ui8PinData**=**ui8PinData**\***2**;**

**}**

**}**

**}**

**------------------------------------------------------------------------------------**

**Task 02a:** blink in BGR sequence

Youtube Link: <https://youtu.be/jZdPUi_F4pk?list=PL5RuXbzEXwesM1VFSxaHMmxf1KU3_x1AR>

**Modified Code:**

**.**

**.**

**.**

uint8\_t ui8PinData**=**4**;**

int main**(**void**){**

.

.

.

**}**

**------------------------------------------------------------------------------------**

**Task 02b: Light up in R, G, B, RG, RB, GB, RGB, R ... sequence**

Youtube Link: <https://youtu.be/UeyHOpWomk4?list=PL5RuXbzEXwesM1VFSxaHMmxf1KU3_x1AR>

**Modified Code:**

//task02b: light up in R, G, B, RG, RB, GB, RGB, R ... sequence

#include <stdint.h>

#include <stdbool.h>

#include "inc/hw\_memmap.h"

#include "inc/hw\_types.h"

#include "driverlib/sysctl.h"

#include "driverlib/gpio.h"

uint8\_t ui8PinData**=**2**;**

int main**(**void**){**

SysCtlClockSet**(**SYSCTL\_SYSDIV\_10 **|** SYSCTL\_USE\_PLL **|** SYSCTL\_XTAL\_16MHZ **|** SYSCTL\_OSC\_MAIN**);**

SysCtlPeripheralEnable**(**SYSCTL\_PERIPH\_GPIOF**);**

GPIOPinTypeGPIOOutput**(**GPIO\_PORTF\_BASE**,** GPIO\_PIN\_1**|**GPIO\_PIN\_2**|**GPIO\_PIN\_3**);**

**while(**1**){**

GPIOPinWrite**(**GPIO\_PORTF\_BASE**,** GPIO\_PIN\_1 **|** GPIO\_PIN\_2 **|** GPIO\_PIN\_3**,** ui8PinData**);** //turn on LED

SysCtlDelay**(**2833333**);**//delay

GPIOPinWrite**(**GPIO\_PORTF\_BASE**,** GPIO\_PIN\_1 **|** GPIO\_PIN\_2 **|** GPIO\_PIN\_3**,** 0x00**);**//turn off LED

SysCtlDelay**(**2833333**);**//delay

//update to new LED in sequence. If at the last LED sequence reset back to first

**if(**ui8PinData**==**4**)**

ui8PinData **=** 10**;**

**else** **if(**ui8PinData**==**10**)**

ui8PinData **=** 6**;**

**else** **if(**ui8PinData**==**6**)**

ui8PinData **=** 12**;**

**else** **if(**ui8PinData**==**12**)**

ui8PinData **=** 14**;**

**else** **if(**ui8PinData**==**14**)**

ui8PinData **=** 2**;**

**else** **if(**ui8PinData**==**2**)**

ui8PinData**=**8**;**

**else** **if(**ui8PinData**==**8**)**

ui8PinData**=**4**;**

**}**

**}**

**Task 03:**

Youtube Link:

**Modified Schematic (if applicable):**

**Modified Code:**

**// Insert code here**

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