**Date Submitted: 9/26/19**

**Task 00: Execute provided code**

**Youtube Link:** <https://youtu.be/jr0laAyiHEw>

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**Task 01:**

Youtube Link: <https://youtu.be/p45W0hHH0Qs>

**Modified Code:**

**#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=4;**

**int main(void)**

**{**

**SysCtlClockSet(SYSCTL\_SYSDIV\_5|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);**

**SysCtlDelay(8000000); //changed to half a second**

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

**SysCtlDelay(8000000); //changes to half a second**

**if(ui8PinData==8) {ui8PinData=2;} else {ui8PinData=ui8PinData\*2;}**

**//2 =red 8=green 4=blue**

**}**

**}**

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**Task 02:**

Youtube Link (part a): <https://youtu.be/SS-APlPEa4k>

Youtube Link (part b): <https://youtu.be/0LJnXj_T5fw>

**Modified Code:**

**2a.**

**#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=4; //changed to start at blue instead of red**

**int main(void)**

**{**

**SysCtlClockSet(SYSCTL\_SYSDIV\_5|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);**

**SysCtlDelay(8000000); //changed to half a second on**

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

**SysCtlDelay(8000000); //changed to half a second off**

**if(ui8PinData==8) {ui8PinData=2;} else {ui8PinData=ui8PinData\*2;}**

**//2 =red 8=green 4=blue**

**}**

**}**

**2b.**

**#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\_5|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);**

**SysCtlDelay(8000000);//changed to half a second**

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

**SysCtlDelay(8000000);//changed to half a second**

**if(ui8PinData==2) {ui8PinData=8;}//if red go to green**

**else if(ui8PinData==8) {ui8PinData=4;}//if green go to blue**

**else if(ui8PinData==4) {ui8PinData=10;}//if blue go to red/green**

**else if(ui8PinData==10) {ui8PinData=6;}//if red/green go to red blue**

**else if(ui8PinData==6) {ui8PinData=12;}//if red/blue go to green blue**

**else if(ui8PinData==12) {ui8PinData=14;}//if green/blue go to red/green/blue**

**else if (ui8PinData==14) {ui8PinData=2;}//if red/green/blue go to red**

**//2 8 4 10 6 12 14**

**//2 =red 8=green 4=blue**

**}**

**}**