Assignment lab 5

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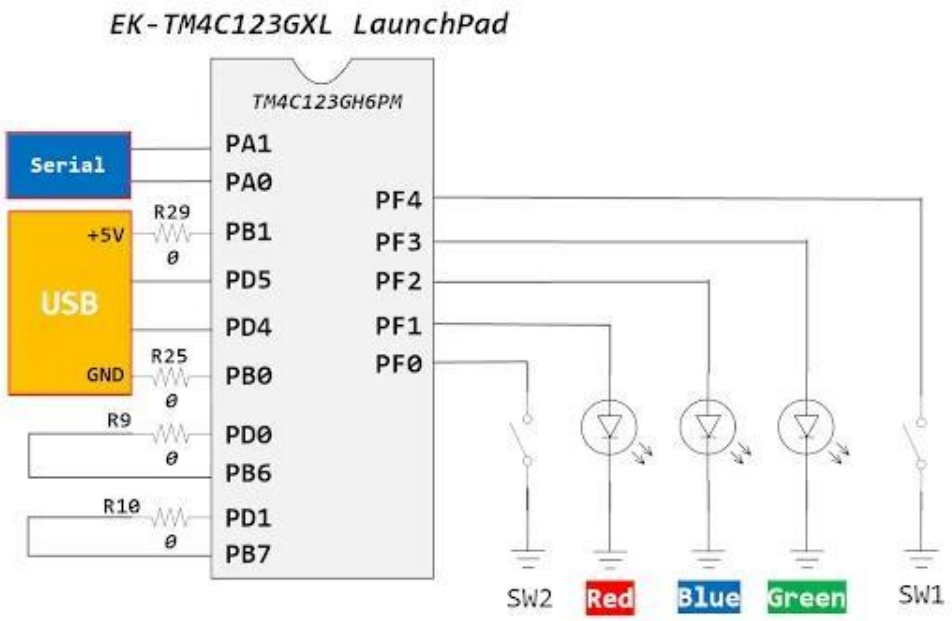
Objective:

In this Lab we are going to learn how to use ARM controllers and Tiva C launchpad And interface with GPIO Peripheral.

Circuit scheme:



CODE:

```
#define SYSCTL_RCGCGPIO_R (*((volatile unsigned long *) 0x400FE608))

#define GPIO_PORTF_DEN_R  (*((volatile unsigned long *) 0x4002551C))

#define GPIO_PORTF_DIR_R  (*((volatile unsigned long *) 0x40025400))

#define GPIO_PORTF_DATA_R (*((volatile unsigned long *) 0x40025038))

#define GPIO_PORTF_CLK_EN  0x20

#define GPIO_PORTF_PIN1_EN 0x02

#define GPIO_PORTF_PIN2_EN 0x04
```

```
#define GPIO_PORTF_PIN3_EN 0x08
#define LED_ON1          0x02
#define LED_ON2          0x04
#define LED_ON3          0x08
#define DELAY_VALUE      4000000
void Delay(void);
int main(void)
{
        SYSCTL_RCGCGPIO_R |= GPIO_PORTF_CLK_EN;    //enable clock for PORTF
        GPIO_PORTF_DEN_R  |= GPIO_PORTF_PIN1_EN;   //enable pins 1 on PORTF
        GPIO_PORTF_DIR_R  |= GPIO_PORTF_PIN1_EN;   //make pins 1 as output pins
        GPIO_PORTF_DEN_R  |= GPIO_PORTF_PIN2_EN;   //enable pins 2 on PORTF
        GPIO_PORTF_DIR_R  |= GPIO_PORTF_PIN2_EN;   //make pins 2 as output pins
        GPIO_PORTF_DEN_R  |= GPIO_PORTF_PIN3_EN;   //enable pins 3 on PORTF
        GPIO_PORTF_DIR_R  |= GPIO_PORTF_PIN3_EN;   //make pins 3 as output pins
        while(1)
        {
                GPIO_PORTF_DATA_R = 0x02;   //Turn on RED LED
                Delay();
                GPIO_PORTF_DATA_R = 0x00;
                Delay();
        }
}
void Delay(void)
```

```
{
        volatile unsigned long i;
        for(i=0;i<DELAY_VALUE;i++);
}
```