EE-712 Embedded system design
Lab1

Aim: To provide sufficient instruction and information to get started with Tiva-C board and to create a simple project using Code composer studio(CCS) .

Labwork:

1. Download the material for lab from course website.
   WEL EE712

2. Perform all the steps mentioned from *Blink LED Example* slide in "**CCS Installation.pdf**" to create sample project.

3. After running the program, you must observe blinking LED(Blue). Please make sure that you check what registers are changing when you execute a particular instruction in debug mode.

4. Now, modify the code such that LED color cycles through Red, Green and Blue.

Connection of on-board switches and LEDs to port pins:

EK-TM4C123GXL evaluation kit has two programmable push buttons and a Red, Green, Blue (RGB) LED for custom applications. Fig.1 shows the port F of Tiva board connected to an RGB LED and two switches SW1 and SW2.
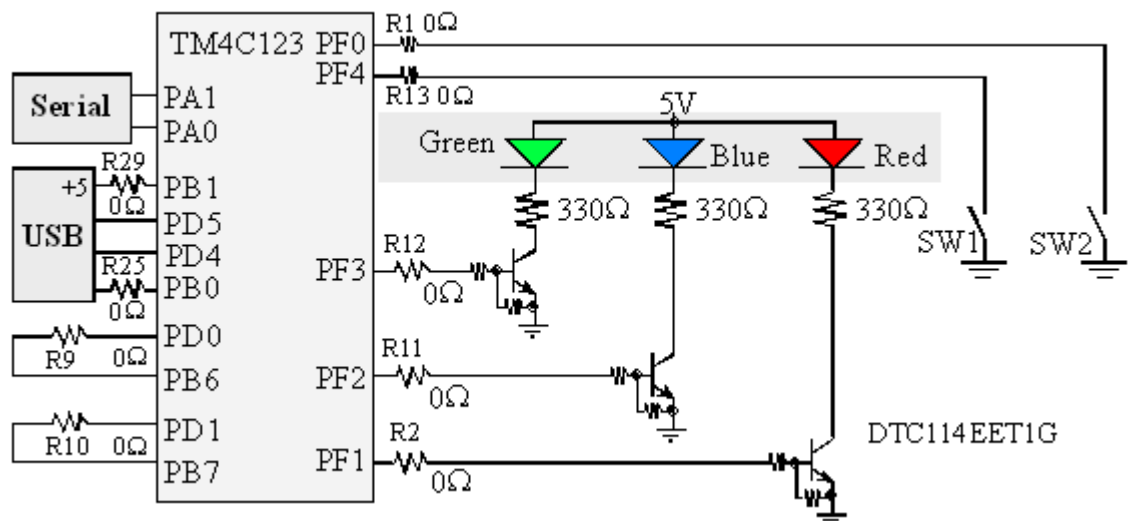

Fig 1: Schematic showing PortF connected to Switches and RGB LED.

Homework for lab session 2:

Configure SW1 and SW2 such that

1. Every time SW1 is pressed toggle delay of LED should cycle through approximately 0.5s, 1s, 2s (Of any one color).

2. Every time SW2 is pressed color of LED should cycle through Red, Green and Blue.

References:

1. [TI RTOS Kernel Workshop](#)