EECS 2032

Lab 12
Fall 2020

In this lab, you will learn how to use The systick counter in LPC802

PreLab

Before the start of the lab you have to

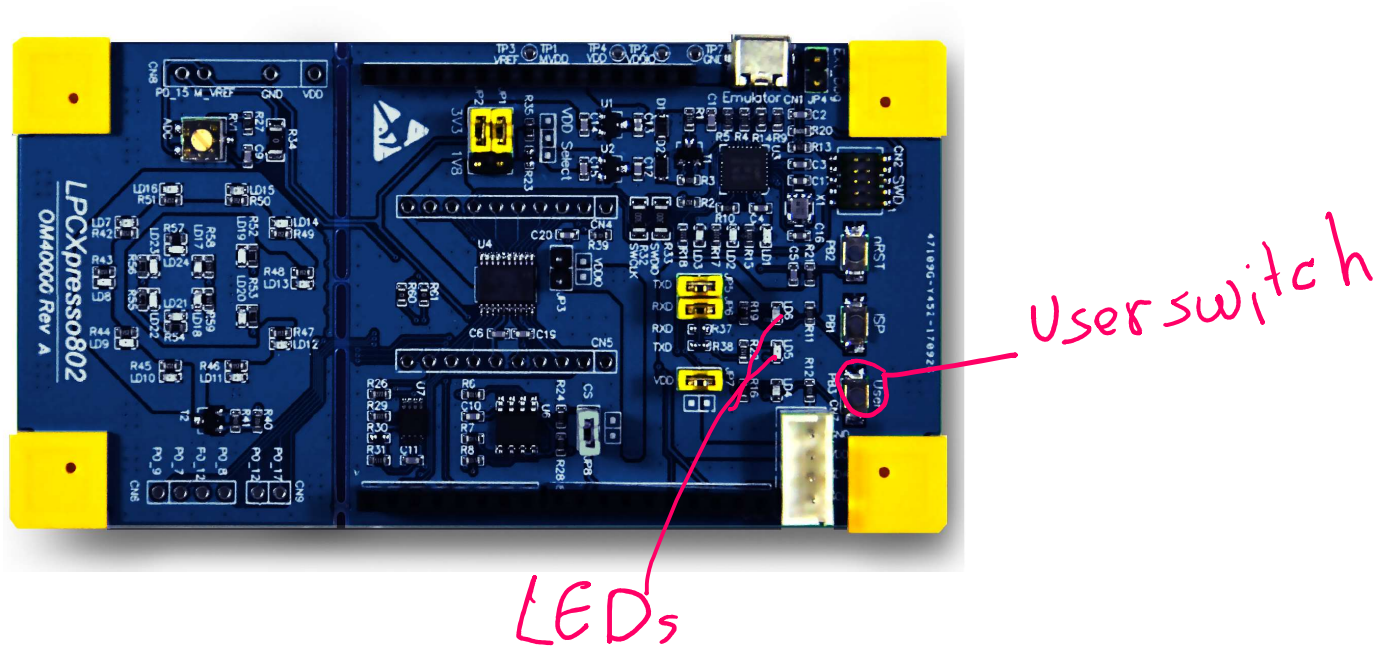
- Install MCUXpresso tool on your laptop
- Watch the two videos on the Eclass course site
- The user manual, the data sheet and the schematic diagram are posted on the lab site for your convenience.
- Read the interrupt part of the slides

LAB

Write, test and debug a program that does the following

Use the systick counter to toggle the LEDs every half a second.

The blinking is as follows



- If the user button is pressed, the green LED blinks and the red LED is left as it was at the time the button is pressed
- If the user button is not pressed, the red LED blinks and the green LED is left as it was at the time the button is released

Submission

The code and the report are submitted to LAB12 as usual

The code is lab12_SysTick.c

The report is lab12_report **in PDF format, no word file will be opened for marking**

About 1 min video showing you demo the problem, note there is a limit on the file size you can upload on eclass, be very brief. If you want, you can upload it to youtube and submit the link

Report Format

The report should contain the following sections

1. Name and lab number on the front page
2. Problem statement in your own words
3. The code as submitted in lab12_LED.c
4. Design approach, this is basically how did you solve the problem, it could be pseudo code, FSM, or flow chart.
5. Any comments/difficulties/surprises if you had any