

LAB 11A

TIMER PROGRAMMING

OBJECTIVES:

- To program the STM32F10x timer.

REFERENCE:

- Mazidi & Naimi “The STM32F103 Arm Microcontroller and Embedded Systems,” Chapter 11

MATERIALS:

- Keil IDE
- Blue pill or any other STM32F10x trainer board
- ST-Link V2
- Speaker (optional)

ACTIVITY 1

- Using SysTick make a delay of 200 milliseconds.
- Write a program that toggles PC13 five times a second.

ACTIVITY 2

Rewrite the code of Activity 1 using TIM2.

ACTIVITY 3

A key is connected to PA0. Write a program that PA1 becomes high whenever the key is pressed and after 2 seconds PA2 becomes high, as well. Use TIM2.

