

GUC
German University in Cairo
Faculty of Engineering and Material Science
Department of Mechatronics Engineering

Mechatronics Engineering
Lab 3 Validation

Due date: To be submitted in your Lab 4 slot.

Student Name:	
GUC ID:	
Lab :	

Problem Statement

It is required to build a circuit with two push button and one LED.

Submit your code during your validation.

Circuit Operation:

- When the user presses the first push button, the LED indicator blinks (i.e. toggles) every **100** milliseconds.
- When the user presses the second push button, the LED indicator blinks (i.e. toggles) every **500** milliseconds.
- This never changes during operation. The user has to press the reset button to change the LED blinking frequency.

Design Requirements:

- Use AVR Embedded board.
- Use Embedded C for programming.
- The two push buttons are connected to **PD2** and **PD3**.
- The LED indicator is connected to **PB0**.
- Do not use predefined delay functions.
- Use Timer 0 in your implementation.
- Include a reset push button in your hardware implementation.