

# **GUC**

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

# Mechatronics Engineering <a href="Lab 2 Validation">Lab 2 Validation</a>

**Due date:** To be submitted in your Lab 3 slot.

Student Name:	
GUC ID:	
Lab:	



## **Problem Statement**

It is required to build a circuit with one push button and two LEDs. **Submit your code during your validation.** 

### **Circuit Operation:**

- When the user presses the push button, the LED indicator 1 turns on.
- After the user presses the push button five times, the LED indicator 2 turns on.

#### **Design Requirements:**

- Use AVR Embedded board.
- Use Embedded C for programming.
- The push button is connected to PD2.
- The LED indicators are connected to PBO and PB1.
- Include software button de-bouncing in your implementation.
- Include a reset push button in your hardware implementation.