Alexandria University
Faculty of Engineering
Computer and Systems Engineering
Department

Computer Organization
Assigned: 5/10/2024

Due: 12/10/2024

Microcontroller LAB

Assignment 1

Lab Objectives

Application on digital output.

Morse Code:

A	·—	J	·———	S	···	1	·————
B	—···	K	—·—	T	—	2	··———
C	—·—·	L	·—··	U	··—	3	···——
D	—··	M	——	V	···—	4	····—
E	·	N	—·	W	·——	5	·····
F	··—·	O	———	X	—··—	6	—····
G	——·	P	·——·	Y	—·——	7	——···
H	····	Q	——·—	Z	——··	8	———··
I	··	R	·—·	0	—————	9	————·

International Morse code is composed of five elements:

- short mark, **dot** or "dit" (·) : "dot duration" is one time unit long

- longer mark, **dash** or "dah" (–) : three time units long

- **inter-element gap** between the dots and dashes within a character : one dot duration or one unit long

• **short gap** (between letters) : three time units long

• **medium gap** (between words) : seven time units long

You should use a LED for indication.

SOS

··· ━ ━ ━ ···

Delivery Policy

- Groups of maximum 2 members.
- Represent "SOS" in Morse Code using the Arduino UNO.
- Each group must send a short **video** showing the Arduino working correctly (LED operating correctly).
- The video should be in a readable format (.mp4 .wmv, etc..)

- Send the video to the form (will send it to MS team)

- If the video size exceeds the mail limit, first try to compress the video or use a lower resolution, then as last resort uploads it to any website (youtube – Mediafire – dropbox – drive, etc..) and include the link in the form.

• **Due Date:** Saturday 12/10/2024 @11.59 p.m.

• **Late delivery** = -25% for each day of delay.

Good Luck