



## Arduino LAB

### Assignment 1

#### 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

SOS

... - - - ...

## **Problem Statement**

- Represent any character in Morse Code using the Arduino UNO by using the built-in LED (LED 13) in the Arduino. The time unit can be 100 ms.
- The message that needs to be represented is passed to the Arduino using the Serial Monitor. The end of the message is indicated by a new line character.

## **Delivery Policy**

- Groups of 3 (Same groups in the sheet).
  - 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 as attachment in a private piazza post and with the subject: [Micro LAB 1]
    - Inside the mail body include your **full names** as well as any note you'd like to mention.
    - If video size exceeds mail limit, first try to compress the video or use lower resolution, then as last resort upload it to any website (mediafire – dropbox – etc..) and include the link in your mail.
  - All group members must attend the discussion during the lab.
  - Assigned Date: Thursday 5/10/2015
  - **Due Date:** Sunday 7/10/2015 @ 23:59
  - **Late delivery** = -25% for each day of delay.
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**Good Luck**