

Experiment 2 – Timer Usage on MSP430

Work(10:00):

1. Write a C code that uses Timer A (by checking interrupt flag manually and without using an interrupt service routine) to generate a Morse Code sequence. Any other type of delay except using Timer A is <u>forbidden</u>.

The Morse code sequence is "ELE417". Hence the blink pattern should be (E)=short / (L)=short-long-short-short / (E)=short / (4)=short-short-short-

be (E)=short / (L)=short-long-short-short / (E)=short / (4)=short-short-short-short-long / (1)=short-long-long-long-long / (7)=long-long-short-short-short-short.

There should be a 1 second off time between each letter and a half second off time between each short and long signals. Duration of short and long blinks are up to your design. Please make it such that they are distinguishable.

Hint: You can put all of the required delay times in an array to process your Timer values easily.