Lab05 – Memo

Part 1:
For this lab I initialized the timer using the XScuTimer API library to control the speed at which the LEDs counted at. The Timer settings were initialized to their default and settings were changed to make the timer a continuous timer with the interrupt enabled to keep track of when the timer is expired and the load value changes based on the calculation of the ONE_TENTH defines multiplied by the number provided by the DIP switches.

Part 2:

Switch Setting	Loaded Register Value	Calculated Elapse Time
0001	0x01EFE920	0.1s
0010	0x03DFD240	0.2s
0100	0x07BFA480	0.4s

Values were calculated as follows:

$$\frac{LRV}{32500000*10}=CET$$

Where LRV is the Loaded Register Value (translated to decimal) and CET is the Calculated Elapse Time and 32500000 is the value defined as ONE_TENTH which is the number of timer counts for 0.1s.