# ECE 341 Lab 2 Prelab Questions

1. What will affect how close your pure software delay can get to 1 ms resolution?  
   How fast the processor is clocked and how much other stuff is in the while(1) loop.
2. What do you see as the advantages of the hardware-assisted delay method?  
   The advantage of the hardware-assisted delay is that the processor can go and do other things while waiting coming back and checking the core timer occasionally.
3. What is the “range” of each method, i.e. the minimum and maximum delay?

The range of the software delay is the time it takes the processor to do 1 empty while loop to how long it takes to make 4294967295 loops (the largest unsigned integer the PIC32 can store). The shortest the hardware assisted delay can wait is however long it takes the PIC32 to read the core timer, store that number, compare that number and see if it has incremented once or more than once and exit. The maximum delay it can have is however long it takes to read and compare 4294967294 iterations of the core timer.