Your task in this assignment is to build a program in machine code for the Arduino that uses the LED marked “L” to convey a message in Morse code. When hosted on the Arduino, your program must run in a continuous loop that blinks the Morse code sequence corresponding to the last 4 digits of your UI student ID and then delay with the LED off for 7 Morse code units. The length of a Morse code unit shall be 1 second in your program. For instance, if your student ID is ktjg8071, your program must run in a continuous loop that blinks the Morse code sequence for “8071” and then delays with the LED off for 7 Morse code units.

To complete this assignment, you must build your program in machine code. You may encode your program in hexadecimal or binary. Please name the file containing your program “hw6.bin”. When your program is complete, use the cscheckin tool to submit it to your instructor. Please ensure that you place your name in a comment at the top of your program before you turn it in. You are required to turn in only your machine code source for this assignment. The work you submit for this assignment must be entirely your own.

Please see http://en.wikipedia.org/wiki/Morse_code for a tutorial on Morse code. A reference card depicting the Morse code alphabet is contained on the next page of this assignment.
International Morse Code

1. The length of a dot is one unit.
2. A dash is three units.
3. The space between parts of the same letter is one unit.
4. The space between letters is three units.
5. The space between words is seven units.