EE337 Microprocessors Laboratory

Wadhwani Electronics Laboratory
Electrical Engineering IIT Bombay

Problem set: 1 Date: January 8 , 2025

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1. [10 points] Download the program given in the Lab 1 folder `Error_code.asm`. Then complete the following steps.
   - Make a new project containing the downloaded program and start debugging.
   - Find out all the errors present in the code and debug them one by one.
   - Run the program successfully.
2. [10 points] Use the same (corrected) program and complete the following steps.
   - Start debugging.
   - Once the memory location 50h gets filled within-code value, you have to change it to 1E
   - Once the memory location 51h gets filled within code value, you have to change it to 0C
   - Go step by step
   - Run till the first instruction of the lable HERE2 function using a breakpoint.
   - Open Logic analyser and setup Port1.
   - Run the entire code and find out the frequency of the waveform of Port1

For instructions on how to start debugging, using logic analyzer, etc., please watch the demo provided in following link : Keil Demo.

TA Checkpoints

1. Check that the student knows how to create a new project in Keil μVision with the right settings for the Pt-51 board.
2. Check that the student knows how to compile the assembly program.
3. Check that the student has corrected all the errors in the given program and has compiled successfully.
4. Check that the student knows how to modify memory at a particular location.
5. Check that the student knows how to step through the program in debug mode.
6. Check that the student knows how to set a breakpoint at a particular line in the program.
7. Check that the student knows how to examine the contents of registers.
8. Check that the student has found the correct frequency.