ECE 375 LAB 3

Introduction to AVR Development Tools

Lab Time: Friday 2-4

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STUDY QUESTIONS

1) What is the initial value of DDRB?

0x00

2) What is the initial value of PORTB?

0x00

3) Based on the initial values of DDRB and PORTB, what is Port B's default I/O configuration

This makes port B as input and deactivates pull-ups.

4) What 16-bit address (in hexadecimal) is the stack pointer initialized to?

0x10FF

5) What are the contents of register r0 after it is initialized?

0xFF

6) How many times did the code inside of LOOP end up running?

4 times

7) Which instruction would you modify if you wanted to change the number of times that the loop runs?

I'd change the value being loaded directly into register r17 to change the number of times that loop runs by modifying the instruction below:

```
ldi     i,  $04
```

8) What are the contents of register r1 after it is initialized?

0xAA

9) What are the contents of register r2 after it is initialized?

0x0F

10) What are the contents of register r3 after it is initialized?

0x0F

11) What is the value of the stack pointer when the program execution is inside the FUNCTION subroutine?

0x10FD

12) What is the final result of FUNCTION? (What are the hexadecimal contents of memory locations $0105:$0104)?

The content of memory location $0104 and $0105 is 0x0E and 0xBA respectively