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Lab 1

Q1: Why does the Port 1 Peripheral show 0 0 0 0 1 0 1 0 and not 1 1 1 1 0 1 0 1

Port 1 doesn't show "1 1 1 1 0 1 0 1" and shows "0 0 0 0 1 0 1 0" because our breakpoints (the red dots) stop those lines from being executed.

Q2: Why does the Port 1 Peripheral show 1 1 1 1 0 1 0 1 and not 0 0 0 0 1 0 1 0

```
main.c STARTUP.A51
   #include <reg51.h>
 3 ⊟void main(void){
       //Declare x
       unsigned char x;
       //Superloop Architecture / Structure of Embedded Programming
       while (1) {
10
                                                                                       Parallel Port 1
11
            P1 = 0xF5; //Output to Port 1 the value 0xF5
12 =
               for(x=0; x<0xFE; x=x+1){ //Busy Wait Delay
                                                                                        Port 1
           };
                                                                                        P1: 0xF5 7 Bits 0
                                                                                        Pins: 0xF5
            P1 = 0x0A; //Output to Port 1 the value 0x0A
15
               for(x=0; x<0xFE; x=x+1){ //Busy Wait Delay
```

Same as question 1, the breakpoints that we put on our programs stops the code from being executed. Thus the previous value that was determined stays to the port.

Q3: What line of code is responsible for creating the Superloop in our program?

The line of code responsible for our superloop is the while loop we have created. For my code,

line 9 to the end of the code consists of my while loop.