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/******
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ECET 17900 - Introduction to Digital Systems - Lab #3
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```
Name: Alec Derwent
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Date: January 31, 2020
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Lab Day and Time: Friday @ 9:30
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```
Included file: <stdio.h> and "serial.c"
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```
IO Connections: none for this procedure
```

```
Description: This is a simple serial test program that includes the required  
              files to utilize standard input and output function. The program  
              will display and initial message then do nothing.
```

```
Key Takes: This is the approach required to display information throughout the  
            semester.
```

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```

```
#include <avr/io.h>
```

```
#define F_CPU 16000000L
```

```
#include <util/delay.h>
```

```
#include <stdio.h>
```

```
#include "serial.c"
```

```
int main(void)
```

```
{
```

```
    init_UART();          // turn on and setup the serial port connection
```

```
    //printf("STDIO Test Program for Lab 3 - Alec Derwent \n\r");
```

```
    DDRC = 0xff;
```

```
    DDRA = 0x00;
```

```
    while(1)
```

```
    {
```

```
        printf("top of while(1)");
```

```
        if (PINA == 1)
```

```
        {
```

```
            PORTC = 0x00;
```

```
            _delay_ms(500);
```

```
            PORTC = 0xFF;
```

```
            _delay_ms(500);
```

```
        }
```

```
    }
```

```
}
```