Lab 6 help guide

When we want to use the serial communication, we can follow this steps.

Step one - Initialize USART

```
void USART_Inti(){
    UBRR0L = 25;
    // Enable receiver and transmitter
    UCSR0B = (1 << RXEN0) | (1 << TXEN0);    // Receive Enable (RXEN) bit
                                             // Transmit Enable (TXEN) bit
```

Step two - For transmitting characters

```
void USART_Transmit(unsigned char data) {
    // Wait for empty transmit buffer
    while ( ( UCSR0A & (1 << UDRE0)) == 0 );     // USART Data Register
                                                 // Empty(UDRE)flag
    // Put data into buffer, sends the data
    UDR0 = data; // USART Data Register (UDR)
```

Step three - For receiving characters

```
unsigned char USART_Receive()
{
    /* Wait for data to be received */
    while ( !(UCSR0A & (1<<RXC0)) );

    /* Get and return received data from buffer */
return UDR0;
}
```

Using delays on C

-There is a predefined delay that we can use. The following command creates a delay of 1 second.

```
    _delay_ms(1000);
```