

```
void user_delay_ms (uint32_t period) {
    for (int i = 0; i < 170*period; i++) {        //based off of 30us delay in DOGM163W_A_SERCOM1.c
        __asm("nop");                            //delay by period ms
    }
}

//*****
//
// Function Name      : "spi_transfer"
// Date              : 5/9/20
// Version           : 1.0
// Target MCU        : SAML21J18B
// Target Hardware    : BME680
// Author            : Brandon Cheung, Ishabul Haque
// DESCRIPTION
// Transmits an unsigned integer byte 'data' through SERCOM1's SPI data
// register, then receives a transmission through SERCOM1's SPI data register
// and returns the received unsigned integer byte.
//
// Warnings          : none
// Restrictions      : none
// Algorithms        : none
// References        : none
//
// Revision History   : Initial version
//
//*****
static uint8_t spi_transfer (uint8_t data) {
    uint8_t Rx_data;
    while(!(REG_SERCOM1_SPI_INTFLAG & 1)) {}      //wait until Tx ready
    REG_SERCOM1_SPI_DATA = data;                  //send data byte
    while(!(REG_SERCOM1_SPI_INTFLAG & 2)) {}      //wait until transmit is complete
    while(!(REG_SERCOM1_SPI_INTFLAG & 4)) {}      //wait until receive is complete
    Rx_data = REG_SERCOM1_SPI_DATA;                //read data register
    return Rx_data;
}
```