

```
/**
 *
 * // File Name           : "BME680 Sensor API"
 * // Title               : BME680 Sensor API
 * // Date                : 5/8/20
 * // Version             : 1.0
 * // Target MCU          : SAML21J18B
 * // Target Hardware     : DOG LCD, BME680
 * // Author              : Brandon Cheung, Ishabul Haque
 * // DESCRIPTION
 * // Uses the user_spi_write, user_spi_read and spi_transfer functions with
 * // the parameters defined in the BME680 Sensor API to configure the BME680
 * // and read the raw temperature measurement from the sensor's ADC.
 * //
 * // Warnings            :
 * // Restrictions        : none
 * // Algorithms          : none
 * // References          :
 * //
 * // Revision History    : Initial version
 * //
 * //
 */
#include "saml21j18b.h"

uint8_t status, id;
uint32_t raw_temperature;
unsigned char* ARRAY_PORT_PINCFG0 = (unsigned char*)&REG_PORT_PINCFG0;
unsigned char* ARRAY_PORT_PMUX0 = (unsigned char*)&REG_PORT_PMUX0;

void init_spi_MCU (void);
static void init_spi_BME680 (void);
void user_delay_ms (uint32_t period);
static uint8_t spi_transfer (uint8_t data);
uint8_t user_spi_read (uint8_t dev_id, uint8_t reg_addr, uint8_t *reg_data, uint16_t len);
```