

Date Submitted:

Task 00: Execute provided code

Youtube Link:

Task 01:Youtube Link: <https://www.youtube.com/watch?v=aS-ew-Q-gKg>

Modified Schematic (if applicable):

Modified Code:

// Insert code here

In collector project:

Csf.c:

```
void Csf_deviceSensorDataUpdate(ApiMac_sAddr_t *pSrcAddr, int8_t rssi,
                                Smsgs_sensorMsg_t *pMsg)
{
    Board_Led_toggle(board_led_type_LED2);

    LCD_WRITE_STRING_VALUE("Temperature=", pMsg->tempSensor.objectTemp, 10,
6);
```

```
#if defined(MT_CSF)
    MTCSF_sensorUpdateIndCB(pSrcAddr, rssi, pMsg);
#endif
}
```

Config.h:

```
#define CONFIG_CHANNEL_MASK{0x00, 0x04, 0x00, 0x00, 0x00, 0x00, \
                             0x00, 0x00, 0x00, 0x00, 0x00, 0x00, \
                             0x00, 0x00, 0x00, 0x00 }
```

In sensor project:

In portable folder console.c:

```
switch (cmd) {
    case 't':
        tempSensor.objectTemp = localTemperatureF;
        tempSensor.ambienceTemp = localTemperatureF;
        Util_setEvent(&Sensor_events, EXT_SENSOR_READING_TIMEOUT_EVT);
        UART_write(uart, tempStartDisplay, sizeof(tempStartDisplay));
}
```

In temperature.c

```
retc = setupTimer(&semTimer, &timerid, 1, 0);
if (retc != 0) {
    while (1);
}

for (sample = 0; sample < 20; sample++){
    if(I2C_transfer(i2c, &i2cTransaction)){

        temperatureC = (rxBuffer[0] << 8) | (rxBuffer[1]);
        temperatureC = (((175.72* temperatureC)/ 65536) - 46.85);
        temperatureF = temperatureC * 1.8 + 32;

        Display_printf(display, 0, 0, "Sample %u: %d (C)", sample, temperatureF);
    }
    else{
        Display_printf(display, 0, 0, "I2C Bus fault.");
    }
}
retc = sem_wait(&semTimer);
if (retc == -1) {
    while (1);
}
```

Github root directory: <https://github.com/TMSB007/2019Fall>

}