

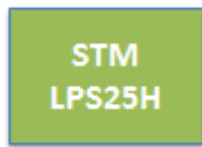
# Introduction to Format of WICED Sensor Data

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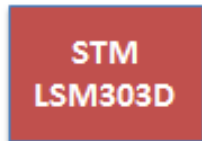
## Introduction to Format of WICED Sensor Data

The following STMicro Sensors are used:

Please refer to the STMicro Web site for details on Sensor Data Sheets.



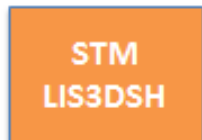
STM LPS25H – Pressure Sensor



STM LSM303D – Accelerometer and Magnetometer



STM L3GD20 – Gyroscope



STM LIS3DSH – Accelerometer



STM HTS221 – Humidity and Temperature Sensor

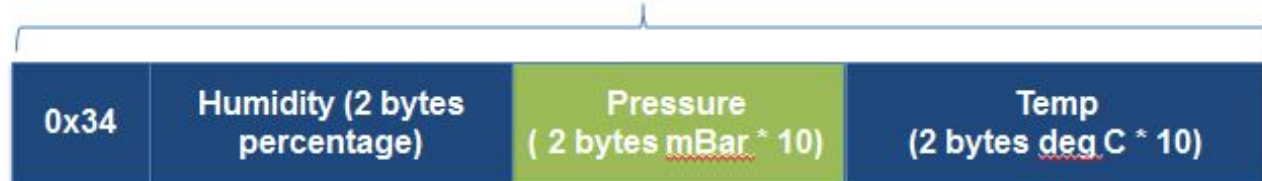
The iOS App receives notifications in this format:

## Sensor Data Format

1st Notification



2 Notification



**struct**

**{**

**/// Bit mask of sensor data**

**/// Bit 0: When set, accelerometer included X (2 signed bytes), Y (2 signed bytes) and Z (2 signed bytes).**

**/// Bit 1: When set, gyro included X (2 signed bytes), Y (2 signed bytes) and Z (2 signed bytes).**

**/// Bit 2: When set, humidity included (2 unsigned bytes in percentage).**

**/// Bit 3: When set, magnetometer included X (2 signed bytes), Y (2 signed bytes) and Z (2 signed bytes).**

**/// Bit 4: When set, pressure included (2 bytes, pressure in mBar \* 10)**

**/// Bit 5: When set, temperature included (2 unsigned bytes, temperature in C \* 10).**

**UINT8 included\_sensor\_data;**

**/// sensor data.**

**/// Data included in the order of the bits set.**

**/// Max length is 20 bytes, may be smaller when data for only some sensors is included**

**/// in the notification.**

**/// Notifications sent out when enabled**

**/// Notifications for Sensor Notification characteristic value (handle 0x2A)**

**UINT8 sensor\_data[];**

**};**