Object Movement Sensor

Preliminary Specification

*Revision 0.01  
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1. Broadcast name definition

1.1 Object Movement Sensor with no movement

The OMS would using the default name, which comes first with OMS, then the ID of this sensor, then the battery level, separated with a ‘\_’.

|  |  |  |  |
| --- | --- | --- | --- |
| **OMS** | **ID** | **Battery Level** | **Movement Def** |
| Text “OMS” | 3-digit | Bxx (xx indicate the battery percentage) | NM (No movement) |

For example, **OMS\_001\_B78** indicates this is the sensor with ID “001”, and the current battery level is 78%. To conserve battery, the sensor’s radio will only be on once per hour, with a broadcast duration of 1.5 minutes for the phone’s detection.

1.2 Object Movement Sensor detects a movement

The OMS would change the name to as following:

|  |  |  |  |
| --- | --- | --- | --- |
| **OMS** | **ID** | **Battery Level** | **Movement Def** |
| Text “OMS” | 3-digit | Bxx (xx indicate the battery percentage) | DM (Detects movement) |

For example, **OMS\_001\_B78\_DM** indicates the previously mentioned sensor has detected a movement. The radio will be on as soon as the sensor detects the movement, and will be on for 1.5 minutes waiting for the phone to read the data. After a successful reading, the name will be changed back to one mentioned in 1.1.

1.3 Object Movement Sensor detects a movement continuously

The OMS would change the name to as following:

|  |  |  |  |
| --- | --- | --- | --- |
| **OMS** | **ID** | **Battery Level** | **Movement Def** |
| Text “OMS” | 3-digit | Bxx (xx indicate the battery percentage) | CM(Continously movement) |

For example, **OMS\_001\_B78\_CM** indicates the sensor has detected a continuously movement. The radio will be on the broadcasting mode for 1.5 minutes to notify the phone, the phone will not connect to read the data. Then the sensor will turn off the radio, and keeps tracking the accelerometer.

1.4 Object Movement Sensor continuously movement ended

The OMS would change the name to as following:

|  |  |  |  |
| --- | --- | --- | --- |
| **OMS** | **ID** | **Battery Level** | **Movement Def** |
| Text “OMS” | 3-digit | Bxx (xx indicate the battery percentage) | EM( Movement ended) |

This only occurs after the CM mentioned in section 1.3. When the sensor detects no movement in the CM mode for a certain time, it will change the name, for example **OMS\_001\_B78\_EM**. Then the sensor will turn on the radio for 1.5 minutes, the phone can discover it and read the data.