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| Project | **Specification of Sensor Interface for Cyber and Physical World**<<https://sagroups.ieee.org/2888.1/> **>** |
| Title | **Application programming interfaces of sensors for large space VR training system** |
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| Re: |  |
| Abstract | This contribution illustrates the application programming interfaces of sensors for large space VR training systems. |
| Purpose | To start discussion on purpose of the standard |
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# Introduction

This contribution illustrates the application programming interfaces of sensors for large space VR training systems.

## Button sensor

Table 1 – Button sensor API

|  |
| --- |
| Nested Classes |
| Modifier and Type | Method and Description |
|  |  |
| Constructor |
| Constructor and Description |
| Button() |
| *Default constructor.* |
|  |
| Button(String id) |
|  |
| Button(String id, String serverIPAddress, integer serverPort) |
|  |
| Fields |
| Modifier and Type | Field and Description |
|  |  |
| Methods |
| Modifier and Type | Method and Description |
| JSONObject | getButtonSensorData() |
|  | *This function returns sensor data from a button sensor in JSON format.* |
|  |  |

## Analog sensor

Table 2 – Analog sensor API

|  |
| --- |
| Nested Classes |
| Modifier and Type | Method and Description |
|  |  |
| Constructor |
| Constructor and Description |
| Analog() |
| *Default constructor.* |
|  |
| AnalogString id) |
|  |
| Analog(String id, String serverIPAddress, integer serverPort) |
|  |
| Fields |
| Modifier and Type | Field and Description |
|  |  |
| Methods |
| Modifier and Type | Method and Description |
| JSONObject | getAnalogSensorData() |
|  | *This function returns sensor data from an analog sensor in JSON format.* |
|  |  |

## Dial sensor

Table 3 – Dial sensor API

|  |
| --- |
| Nested Classes |
| Modifier and Type | Method and Description |
|  |  |
| Constructor |
| Constructor and Description |
| Dial() |
| *Default constructor.* |
|  |
| Dial(String id) |
|  |
| Dial(String id, String serverIPAddress, integer serverPort) |
|  |
| Fields |
| Modifier and Type | Field and Description |
|  |  |
| Methods |
| Modifier and Type | Method and Description |
| JSONObject | getDialSensorData() |
|  | *This function returns sensor data from a dial sensor in JSON format.* |
|  |  |

## Haptic sensor

Table 4 – Haptic sensor API

|  |
| --- |
| Nested Classes |
| Modifier and Type | Method and Description |
|  |  |
| Constructor |
| Constructor and Description |
| Haptic() |
| *Default constructor.* |
|  |
| Haptic(String id) |
|  |
| Haptic(String id, String serverIPAddress, integer serverPort) |
|  |
| Fields |
| Modifier and Type | Field and Description |
|  |  |
| Methods |
| Modifier and Type | Method and Description |
| JSONObject | getHapticSensorData() |
|  | *This function returns sensor data from a haptic sensor in JSON format.* |
|  |  |

# Conclusions

We recommend accepting the proposed application programming interfaces of sensors for large space VR training systems.