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| Project | **Specification of Sensor Interface for Cyber and Physical World**<<https://sagroups.ieee.org/2888.1/> **>** |
| Title | **Syntax and semantics of biosensor capabilities** |
| DCN | **2888-21-0068-01-0001** |
| Date Submitted | **Oct. 13th, 2021** |
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| Re: |  |
| Abstract | This contribution illustrates the basic JSON schema structure for representing biosensor capabilities in a standardized data format. The semantics and examples of the biosensor capabilities are presented.  |
| Purpose | To start discussion on purpose of the standard |
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# Introduction

This contribution illustrates the basic JSON schema structure for representing biosensor capabilities in a standardized data format. The semantics and examples of the biosensor capabilities are presented.

# Data formats for biosensor capabilities

## Blood pressure sensor capability

### General

This sub-clause specifies a sensor capability of a blood pressure sensor.

### Syntax

|  |
| --- |
| "bloodPressureSensorCapability": {"type": "object","properties": { "sensorCapabilityBaseType": { "$ref": "#/definitions/sensorCapabilityBaseType" },}} |

### Semantics

Semantics of the bloodPressureSensorCapability:

| Name | Definition |
| --- | --- |
| bloodPressureSensor CapabilityType | Tool for describing a blood pressure sensor capability. |

### Examples

The blood pressure sensor in this example can measure blood pressure from 20 to 258 mmHg.

|  |
| --- |
| {"sensorCapabilityBaseType": { "maxValue": 258, "minValue": 20},} |

## Heart rate sensor capability

### General

This sub-clause specifies the capability of a heart rate sensor.

### Syntax

|  |
| --- |
| "heartRateSensorCapability": {"type": "object","properties": { "sensorCapabilityBaseType": { "$ref": "#/definitions/sensorCapabilityBaseType" },}} |

### Semantics

Semantics of the heartRateSensorCapability:

| Name | Definition |
| --- | --- |
| heartRateSensor CapabilityType | Tool for describing a heart rate sensor capability. |

### Examples

The heart rate sensor in this example can measure a heart rate between 20 and 150 BPM.

|  |
| --- |
| {"sensorCapabilityBaseType": { "minValue": 0, "maxValue": 150}} |