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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** |
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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  }  } |