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| Title | **Syntax and semantics of bend sensor capabilities** |
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| Abstract | This contribution illustrates the basic JSON schema structure for representing bend sensor capabilities in a standardized data format. The semantics and examples of the bend sensor 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 bend sensor capabilities in a standardized data format. The semantics and examples of the bend sensor capabilities are presented.

# Bend sensor capability

## General

This sub-clause specifies a sensor capability of a bend sensor.

## Syntax

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| "bendSensorCapability": {  "type": "object",  "properties": {  "sensorCapabilityBaseType": {  "$ref": "#/definitions/sensorCapabilityBaseType"  },  "numOfJoints" : {"type": "integer"},  "numOfAxis" : {  "type": "integer",  "minimum": 1,  "maximum": 3,  }  }  } |

## Semantics

Semantics of the bendSensorCapability:

| Name | Definition |
| --- | --- |
| bendSensor CapabilityType | Tool for describing a bend sensor capability. |
| numOfJoints | Describes the number of joints that a bend sensor can sense bend angles. |
| numOfAxis | Describes the dimension that the bend sensor can perceive the bend angles. |

## Examples

The bend sensor in this example can measure from -180 to 180 degrees, and the number of joints is 5. This bend sensor only supports unidirectional measurement.

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| {  "sensorCapabilityBaseType": {  "maxValue": 180,  "minValue": -180  },  "numOfJoints": 5,  "numOfAxis": 1  } |