

Extending SDF for relationship and instance information

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SDF Instance ex1

```
"sdfInstance": {  
  "robot-arm-1": {  
    "sdfInstanceOf": "#/sdfObject/RobotArm",  
    "sdfProperty" : {  
      "X" : {  
        "minimum" : 0  
      }  
    }  
  }  
}
```

SDF Instance ex1 as Thing

```
"sdfThing": {  
  "robot-arm-1": {  
    "sdfRef": "#/sdfObject/RobotArm",  
    "sdfProperty" : {  
      "X" : {  
        "minimum" : 0  
      }  
    }  
  }  
}
```

Needs to be Thing



*As drafted
during the
meeting*

SDF Instance ex1 as Object

```
"sdfObject": {  
  "robot-arm-1": {  
    "sdfRef": "#/sdfObject/RobotArm",  
    "sdfProperty" : {  
      "X" : {  
        "minimum" : 0  
      }  
    }  
  }  
}
```

*As drafted
during the
meeting*

Does setting values
make instance? (no?)

SDF Instance ex2

```
"sdfInstance": {  
  "sensor1": {  
    "sdfInstanceOf": "ipso:#/sdfObject/Temperature",  
    "sdfRelation": {  
      "robot-arm-with-temperature" : {  
        "type" : "saref:isContainedIn",  
        "target" : "#/sdfInstance/robot-arm-1"  
      }  
    }  
  }  
}
```

SDF class relation example

```
"sdfRelation": {  
  "measured-temp": {  
    "type": "eiot:measured-by",  
    "target": "ipso:#/sdfObject/Temperature"  
  }  
}
```

SDF relations

- Class -> class: how these two relate in general
- **Instance -> Instance: how these instances relate**
- Instance -> class: restricting what instance relations can have
- Class -> instance?

SDF instances

- 4 levels: class, type, kind, instance