# Table: SensorToValues

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| **Schema:** | SystemSchematicBuilder |
| **Responsible:** | Kurt A Vedros |

Table holds the information on the connection of the Sensor Table to the Values Table, this includes the designated threshold and whether the value is above the threshold.

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| **Column Name** | **Data type** | **Description** |
| SensorToValueID | Int | Primary Key of SensorToValue Table. |
| SensorID | Int | Foreign Key to connect the Sensor Table. |
| ValueID | Int | Foreign Key to connect Value Table. |
| Threshold | Float | The numeric value of the threshold given by the standards of the value read. |
| IsAboveCheck | bit | A Boolean operator that reads 1 if it the value is above and 0 if the value is below the designated threshold. |

**Procedures (Database functions)**

* sprocGetSensorToValues
  + Returns a list of SensorToValue objects that are currently stored in the database.
* sprocGetSensorToValue
  + Returns a SensorToValue object that is currently stored in the database that has the given SensorToValue ID number.
* sproc\_SensorToValueAdd
  + Stores the given SensorToValue object into the database and returns its assigned SensorToValue ID number.
* sproc\_SensorToValueUpdate
  + Changes information of the SensorToValues Table in the database with the given primary key to the given SensorToValue class object.
* sproc\_SensorToValueRemove
  + Removes the SensorToValue from the SensorToValues Table with the given SensorToValue ID number.

**DAL (Software Functions)**

* SensorToValuesGetAll()
  + Returns a list of SensorToValue objects that are currently stored in the database.
* SensorToValueGet(int ID)
  + Returns a SensorToValue object that is currently stored in the database that has the given SensorToValue ID number.
* SensorToValueAdd(SensorToValue SensorToValue)
  + Stores the given SensorToValue object into the database and returns its assigned SensorToValue ID number. Returns -1 if error occurred, otherwise returns null.
* SensorToValueUpdate(SensorToValue SensorToValue)
  + Changes a SensorToValue object that is currently stored in the database with the given SensorToValue’s SensorToValue.ID with the SensorToValue’s information.
* SensorToValueRemove(int ID)
  + Removes the SensorToValue object stored in the database with the given SensorToValue ID number. Returns -1 if error occurred, otherwise returns null.