

*MADHAV INSTITUE OF TECHNOLOGY AND SCIENCE, GWALIOR*

SENSOR TECHNOLOGY

ASSIGNMENT 1



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**Difference between sensor and transducer with example.**

*Transducer*

1. A transducer is a device which converts one form of energy to another.
2. The purpose of transducer is to convert of any one type of energy into another.
3. An example of a transducer is a loudspeaker, which converts an electrical signal into a variable magnetic field and, subsequently, into acoustic waves. This is nothing to do with perception or sensing.

*Sensor*

1. A sensor is a device that receives a stimulus and responds with an electrical signal.
2. The purpose of a sensor is to respond to some kind of an input physical property (stimulus) and to convert it into an electrical signal that is compatible with electronic circuits.
3. Example of sensor is RTD (Resistance Temperature Detector). It’s resistance changes as its temperature changes. The resistance increases as the temperature of the sensor increases.