<T-SENSOR>

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| **Document Name** | < T-SENSOR module> |
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# Introduction

**This module uses ADC to read positive voltages and turns them to positive temperature degrees so we can keep tracking the room temperature changes**

**It can’t read except positive voltages (positive temperatures) only.**

## Document Scope

T-SENSOR description for further use.

## Goals and Objectives

This module helps user to acknowledge any temperature rises

## Context Diagram

*Add the* System *context* diagram *of the system here*

Figure 1 : System *context* diagram *of <DIO>*

|  |  |
| --- | --- |
| **Interface** | **Description** |
| *LCD* | *Displays the temperature rises whenever the sensor senses it.* |

Table 1: Interfaces description

*Add the Control Flow Diagram of the system here*

Figure 2 : Control Flowdiagram

|  |  |  |  |
| --- | --- | --- | --- |
| ***API*** | ***Description*** | ***Inputs*** | ***Return Value*** |
| u8TSEN\_u8ReadTSensr(u8 Copy\_SenIdx , u16 \*Copy\_PtrToVal) | Sensing the room temperature to detect any changes | Sensor index  Pointer to the sensor read | Sending error or ok message on the sensor index range |

Table 2: API description

|  |  |  |
| --- | --- | --- |
|  |  |  |

# Design Constraints

## Constraints on Initialization

Works on 5v only

## Constraints on Inputs

Range of sensor supported is 8

## Constraints on Outputs

Reads only positive volts(positive temperature)

## Communication/Network Constraints

N/A

## Diagnostic Constraints

N/A