IRIS NICOLE CARSON 4 BS CpE March 8, 2023
ANTONIO RAFAEL CASTRO
JOSHUA MANUEL LOUISE KEMPIS

Project 2 Final Report **DRAFT 03/08/23**

Interfacing a Temperature Sensor

Overview

A program is created to simulate how a microprocessor system determines temperature values picked up from a temperature sensor. The program utilizes an analog to digital converter which detects the initial input from a given temperature stimulus and passes it onto an equation that solves the output temperature according to what was read from the ADC output

Code Collaboration Overview

The code is collaborated between three members which contribute to the common GitHub repository. The repository contains all the code and drafts that contribute to the final output. Using the GitHub platform, contributions and updates can easily be logged and monitored as well as resolving revision conflicts on the same code.

Implementation of Functions and Operations

Output Review

```
[CMD] : adc
Enter hexadecimal number: 23AB
23AB in decimal format = 9131
Input ADC Value in Decimal: 9131
Voltage: 0.696651
Current: 0.00430335
Resistnace: 161.886
T_out = 351.466 K
```

The program requests for a valid command in order to perform certain operations. The “help” command displays all possible commands that the program can read as valid.

The “adc” command allows the program to enter into adc mode whee the user is requested a hexadecimal number to which the program interprets and outputs a corresponding temperature output reading.

Documentation Link

The GitHub repository for the project is made publicly available through the following:

GitHub Link	https://github.com/jaykempis/engg156-projects-cck/tree/main/Project2_TempSensor

References