Damian Cisneros

CPE301 – SPRING 2018

Design Assignment 4

**DO NOT REMOVE THIS PAGE DURING SUBMISSION:**

The student understands that all required components should be submitted in complete for grading of this assignment.

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| **NO** | **SUBMISSION ITEM** | **COMPLETED (Y/N)** | **MARKS**  **(/MAX)** |
| 1 | COMPONENTS LIST AND CONNECTION BLOCK DIAGRAM w/ PINS |  |  |
| 2. | INITIAL CODE OF TASK 1/A |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 2/B |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 3/C |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 4/D |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 5/E |  |  |
| 4. | SCHEMATICS |  |  |
| 5. | SCREENSHOTS OF EACH TASK OUTPUT |  |  |
| 5. | SCREENSHOT OF EACH DEMO |  |  |
| 6. | VIDEO LINKS OF EACH DEMO |  |  |
| 7. | GOOGLECODE LINK OF THE DA |  |  |
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1. **COMPONENTS LIST AND CONNECTION BLOCK DIAGRAM w/ PINS**

List of Components used:

ATmega328p

LM34

Breadboard

10kΩ resistor

DC motor

Stepper motor

Servo motor

Pushbutton

L293D

ULN2003

Block diagram with pins used in the Atmega328P

1. **INITIAL/DEVELOPED CODE OF TASK 1/C Code**
2. **INITIAL/DEVELOPED CODE OF TASK 2/C Code**
3. **INITIAL/DEVELOPED CODE OF TASK 3/C Code**
4. **SCHEMATICS**

Task 1 C Board Schematic

1. **SCREENSHOT OF EACH DEMO (BOARD SETUP)**

Task 1 C Board Setup

Task 1 Terminal Output (Normal temp then increases as I hold it and decreases as I let go of the LM34).

1. **VIDEO LINKS OF EACH DEMO**

Task 1/C Code -

1. **GITHUB LINK OF THIS DA**

<https://github.com/cisned2/DA3>

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<http://studentconduct.unlv.edu/misconduct/policy.html>

“This assignment submission is my own, original work”.