Computer Science and Physics Independent Study

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| Instructor Jonathon Newport Email newport@american.edu Office Location DMTI 206e Office Hours Tuesdays: 10:30am – 12:30pm | Required Text Publication Name, Author Name |

**Project Summary:**

The embedded system will read the temperature from multiple precision thermistors and use the PID control algorithm to adjust the temperature using either a heating coil or a Peltier device (aka a TEC).

**Project Resources:**

My mentor will provide most of the required resources that are needed to complete the project. These resources include:

* Thermistors
* Peltier Device
* Arduino IDE

**Project Timeline:**

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| --- | --- | --- |
| Date | Objective # | Deliverable |
| 1/18 |  |  |
| 1/25 |  | Block Diagram |
| 2/1 |  |  |
| 2/8 |  | Schematic |
| 2/15 |  |  |
| 2/22 |  |  |
| 3/1 |  |  |
| 3/8 |  |  |
| 3/15 |  |  |
| 3/22 |  |  |
| 3/29 |  |  |
| 4/5 |  |  |
| 4/12 |  | Completed Eagle Diagram |
| 4/19 |  |  |
| 4/26 |  | Project Complete |

**Project Objectives:**

1. Control temperature of the device