Yew Journ Chan

ART385 – Interaction Design

Project 2 – Real World Input and Output

Design Document

3/5/20

**Assignment:**

This project will build upon the basic code structures we have learned so far to make an interactive physical computing system. For this assignment you will create a project that uses input devices and output devices.

For my project, I have decided to create a temperature gauge for my room to inform me of the current temperature of the room by reflecting a state on my Arduino breadboard. To do so, I have created three different states using the LDR as an input and the RGB LED as an output. My first state, which would reflect the normal room temperature is reflected by a neutral state of the LDR or when no outside light source is affecting the LDR, the LED should constantly blink between a green and blue light. For the second state, when the room is cold, or when the LDR is being covered completely, the LED will reflect this state by shining a green light constantly. Lastly, when the room is warm, this state is reflected by shining a light on the LDR which will then cause the LED to shine a red light constantly.

**Intended Audience:**

This project was intended for the ART385 class and or anyone interested in re-creating a state machine to gauge various different temperatures in an indoor space.

**Schematic Diagram:**

**A close up of text on a whiteboard

Description automatically generated**

**Interaction Map:**

A close up of text on a whiteboard

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**Reflection:**

I initially thought that my idea for creating this project was simple in logic and theory, however given the current Covid-19 situation, I was not able to receive a lot of parts needed to complete the intended function. Thus, I had to create my project with the hardware available to me and worked to use the tools available to reflect different use cases. Attached in Github submission is a video demonstration of my working code.