Journal Report 8
10/28/19-11/11/19
David Cha
Computer Systems Research Lab
Period 2, White

Daily Log

Detail for each day about what you researched, coded, debug, designed, created, etc. Informal style is OK.

Monday October 27

Worked on proposal PowerPoint

Tuesday October 28

Continued working on PowerPoint and presented

Thursday October 31

Began researching how to code (non-continuous) servos in Arduino; these servos can be coded to certain positions in degrees and are more precise than continuous servos
Watched other presentations

Wednesday November 13

Continued researching how to code (non-continuous) servos in Arduino
Began wiring servo to Arduino and breadboard

Friday November 15

Successfully wired servo to Arduino and breadboard and had the mallet swing at different speeds

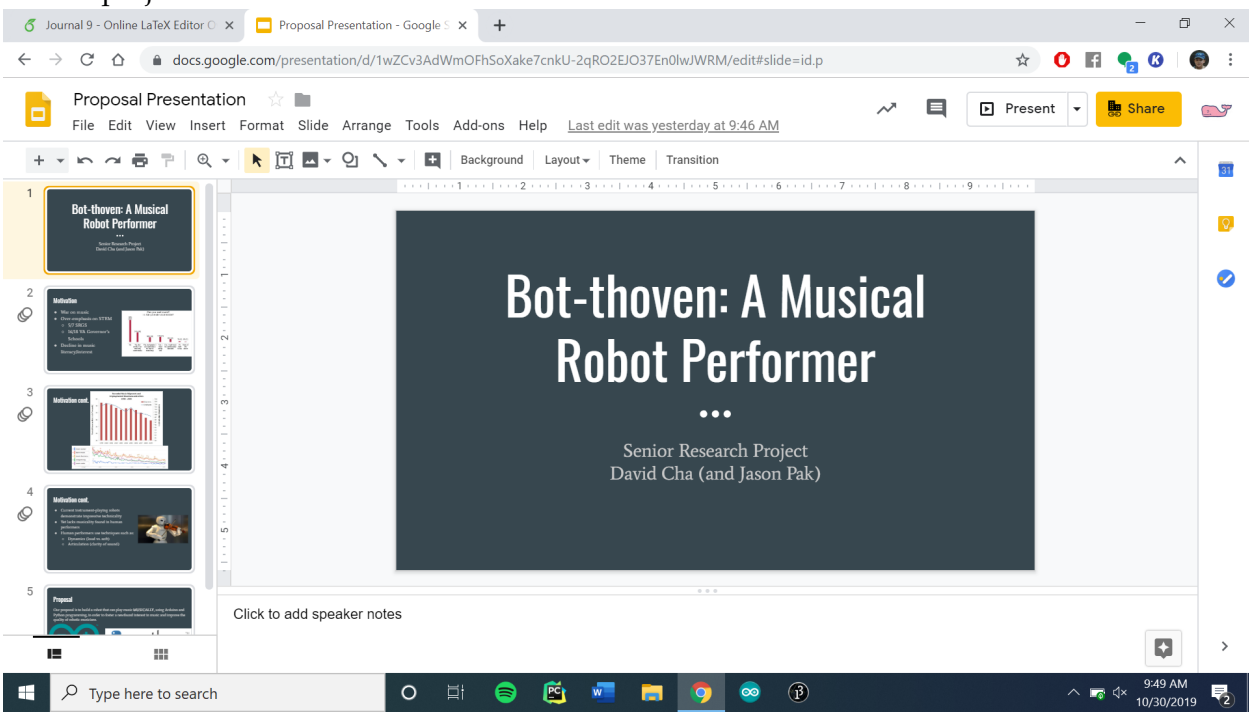
Timeline

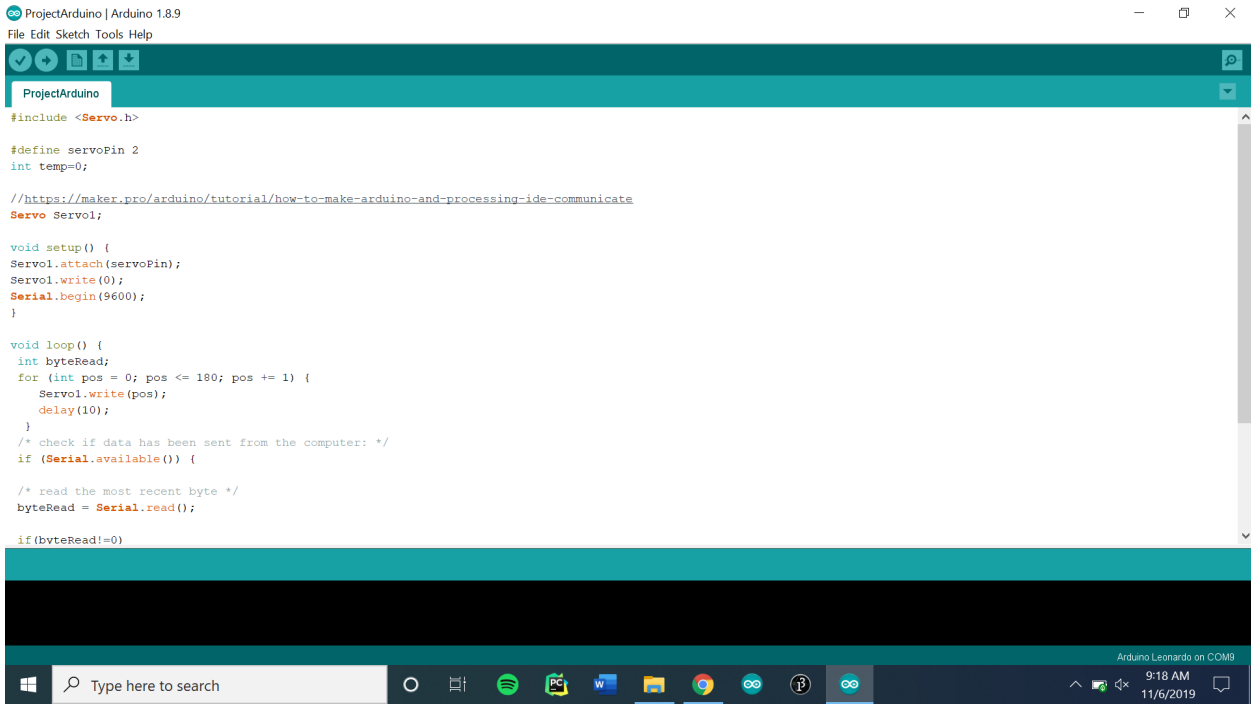
Date	Goal	Met
October 14	Coordinate multiple LEDs with MIDI music file (one LED per note)	Partially met; I am able to control multiple LEDs, however, I have not coordinated them with the MIDI file
October 28	Coordinate multiple LEDs with MIDI music file (one LED per note)	Yes; goal successfully met
November 11	Coordinate even more LEDs with file that contains more than 14 notes	No; worked on/viewed presentations and began incorporating servos into project
November 18	Successfully play a single note on Jason's robot	
November 25	Successfully play multiple notes on Jason's robot	

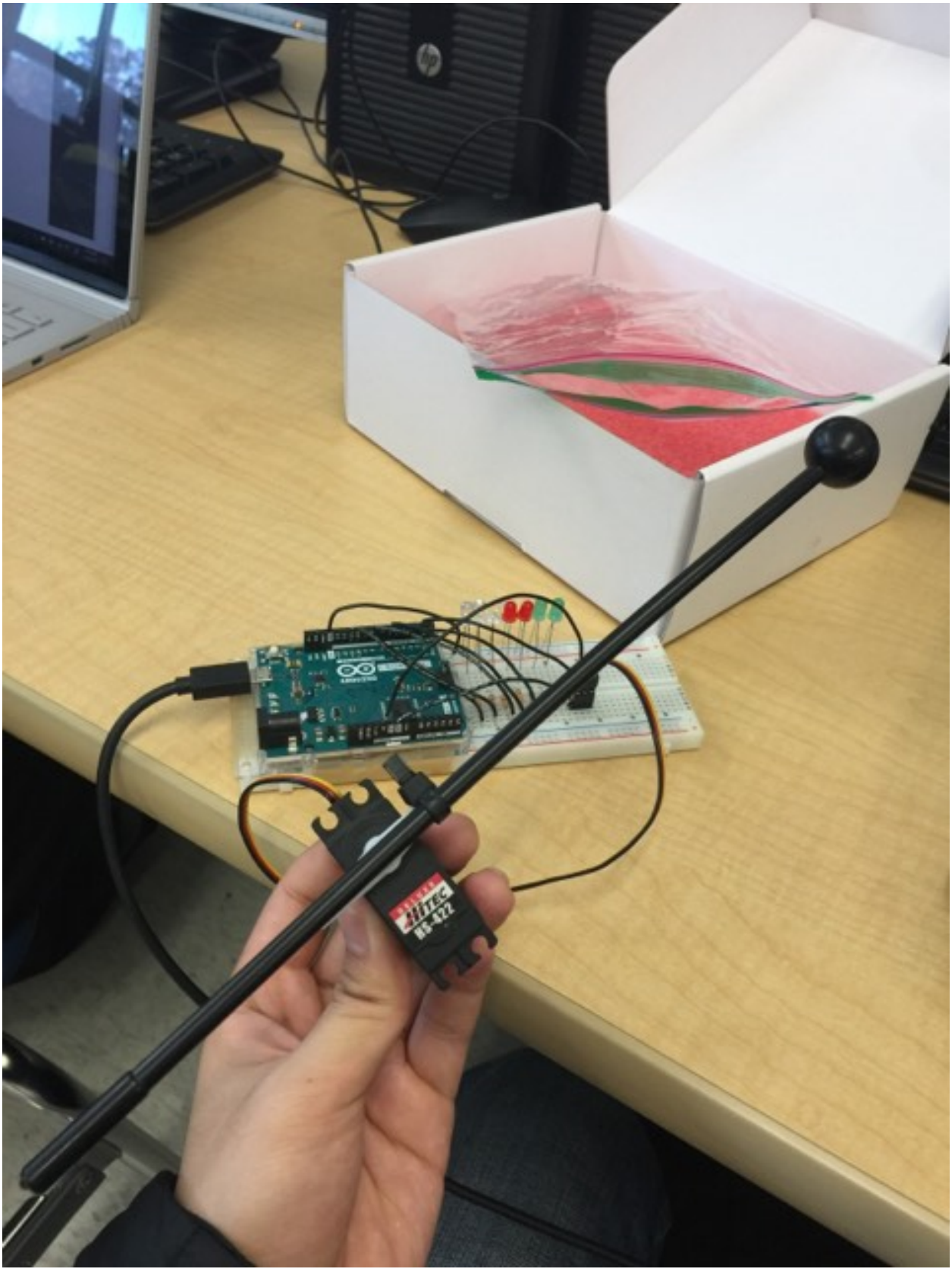
Reflection

In narrative style, talk about your work this week. Successes, failures, changes to timeline, goals. This should also include concrete data, e.g. snippets of code, screenshots, output, analysis, graphs, etc.

Overall, I am satisfied with my accomplishments this week. With the first quarter drawing to a close, rather than working on my project and achieving this week's goal, it was nice to take a step back and reflect on the bigger picture of my project through this presentation (as shown below). In terms of a next step, with Jason having completed his first servo/mallet system, and with me being able to successfully integrate it into my Arduino/breadboard system, I think that I will have to make the goal of next week (or next next week) to play at least one note with Jason's servo/mallet system. This is also especially necessary as I came to the realization that using shift registers for LEDs is an entirely different process from using shift registers for servos. Thus, the proposed goal of using shift registers to code for more than 14 LEDs may not even be beneficial for the purpose of this project.

(8).png (8).png 

(9).png (9).png 
ProjectArduino | Arduino 1.8.9
File Edit Sketch Tools Help
ProjectArduino
#include <Servo.h>
#define servoPin 2
int temp=0;
//https://maker.pro/arduino/tutorial/how-to-make-arduino-and-processing-ide-communicate
Servo Servo1;
void setup() {
Servo1.attach(servoPin);
Servo1.write(0);
Serial.begin(9600);
}
void loop() {
int byteRead;
for (int pos = 0; pos <= 180; pos += 1) {
Servo1.write(pos);
delay(10);
}
/* check if data has been sent from the computer: */
if (Serial.available()) {
/* read the most recent byte */
byteRead = Serial.read();
if(byteRead!=0)
Arduino Leonardo on COM9
Type here to search
9:18 AM
11/6/2019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