Journal Report 4 9/23/19-9/30/19 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 September 23**

Decided to temporarily test my code with LEDs instead of servos since my partner is not ready yet

Acquired said LEDs from robo lab

Began refreshing myself on how Arduinos work

# **Tuesday September 24**

Continued relearning how to use Arduinos

Looked into a second mallet design (the first being gravity powered mallets) featuring zip-tying the mallet onto the servo and utilizing its rotation

#### **Thursday September 26**

Successfully turned on LED with the Arduino

Began working on coordinating LED with MIDI data file (eg. the LED flashes whenever a note is being played)

## **Timeline**

Date	Goal	Met
September 16	Find fourth sample song and transfer	yes; created fourth sample song and
	data file to Processing IDE	transferred data file to Processing IDE
September 23	Find and test my code on an actual	partially met; part of my code suc-
	Arduino board	cessfully uploads to the board but I
		do not know if it is doing what it is
		supposed to be doing
September 30	See if robot can successfully play a	not met; my partner did not have a
	note	robot ready for me to test
October 7	See if robot can successfully play mul-	
	tiple notes	
October 15	See if robot can successfully play a	
	note	

## 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. I successfully lit my first LED, as shown in the photo below. At first I thought this would be a major setback being at different points in our project and not being able to test our respective parts of the project with the other. Fortunately I was able to find a way to continue my own work using LEDs and "stall" in a way until my partner can finish his first prototype. I will also have to rearrange deadlines to account for this LED testing.

I am also glad that we now have multiple possibilities in how we choose to implement our mallet system. Ideally, we would be able to construct both options and see which performs better.

