Journal Report 3 9/16/19-9/23/19 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 16**

Acquired Arduino Leonardo board and USB connector from partner in robo lab in order to upload my own code

Researched how to transfer Processing code completed last week to Arduino Leonardo board

## **Tuesday September 10**

Successfully transferred program to Arduino board using USB cable Began coding Arduino program which will work in tandem with Processing code to determine which motor to power when

#### **Thursday September 12**

Looked into Sam Battle's Lego Star Wars orchestra upon the suggestion of Mr. White, specifically the behind the scenes video on Youtube

Composed email explaining partner predicament and sent to Jason (cced Mr. White)

#### Timeline

Date	Goal	Met
September 9	start project	yes; started project
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	
	note	
October 7	See if robot can successfully play mul-	
	tiple notes	

#### 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 have for the most part met my goal of transferring my code onto the Arduino board, as can be seen in the image below by the yellow light being turned on. However, I am thinking that I will most likely have to change my intended goals of playing notes with the robot, as my partner is not ready to test.

Upon watching the Lego Star Wars Video Mr. White recommended to me, I found their approach interesting. Rather than starting from an upright position like we were planning to do, they started their mallets from a level position, used the motors to raise them up, and let gravity pull the mallets back down to strike the key. Hopefully in the future I will have a chance to discuss this design decision with my partner as this will also affect how I code the Arduino.

