Journal Report 9
11/11/19-11/18/19
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Period 2, White

Daily Log

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

Monday November 11

Met with Jason to discuss robot chassis
Observed our mallet hitting the xylophone and took note on how effectively the mallet strikes the keys at different chosen speeds

Tuesday November 12

Began integrating velocity MIDI data and converting said data in terms of Servo velocity in order to give our robot ”dynamics” based on the MIDI file

Thursday November 14

Began research into shift registers specifically made for Servos so that I will better understand how they work by the time we order them and they come in (currently out of stock)
Realized that I am running out of things to work on while Jason finishes his part of the project but that this is only expected in group projects

Timeline

Date	Goal	Met
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	Partially met; successfully played a single note using a component of Jason's robot as the robot structure was not built yet
November 25	Successfully play multiple notes on Jason's robot	
December 2	Successfully control multiple Servos with shift registers (if we have them by then)	
Winter Goal	Successfully play a complete song	

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. Looking towards the future, Jason and I have decided that we are going to separate our xylophone in order for there to be enough space for our robot's chassis and each individual servo. We also noticed some minor adjustments that we are going to have to make to our servo-mallet system in order to ensure that each mallet strikes its respective note accurately (eg. cutting down excess plastic, proper positioning, etc.).

Especially since the next big step in our project is to complete the wooden frame of our robot and being able to see how all parts of our project work together, until then, I believe that the best course of action for me is to begin looking into the improvements we planned for our robot earlier on. This includes aspects like dynamics and articulation. Since my winter goal of playing a single song allows for some flexibility (some songs are harder to play than others), I feel that overall we are well on track to meet this goal.