EE / CprE / SE 491 – sddec19-12

Campanile-Carillon Model Phase II

Jan 2019 – Dec 2019

Client: Dr. Tin-Shi Tam

Faculty Adviser: Dr. Gary Tuttle

Weekly Report 7

April 8 - April 12

Team Members

Ryan Roltgen – Software Engineering – Meeting Scribe

Sam Habel – Computer Engineering – Meeting Facilitator

Yicheng Hao – Electrical Engineering – Power Systems Lead

Gabriel Stackhouse – Software Engineering – Software Lead

Kienan Otto – Computer Engineering – Report Manager

Grant Mullen – Computer Engineering – Integration Manager

Weekly Summary

This week was focused on establishing our deliverables and completing the port over to our Windows version of the program. We were able to get most functionality up and running on our Windows machines, and took efforts to ensure the behavior remained constant between the two versions of our software.

Past Week Accomplishments

- Made great progress on the Windows port. All MIDI files are being read and the notes are falling properly - Gabe, Ryan
- Tested the battery indicator circuit. It can be configured with batteries with various voltage drop rate.

Pending Issues

● The code for the light bar still needs to be rewritten for the Windows port, and new features like tempo control and PDF viewing still need to be added

Individual Contributions

Team Member	Contributions	Weekly Hours	Total Hours
Ryan	Worked on windows port and fixed some issues that were causing the notes to not properly be drawn when a song was selected	6	43
Sam	Met with Mech E group and worked on setting up a time to see the frame. Researched displaying PDFs through a C++ application, began work on a test application.	6	35
Yicheng	Prototyped the battery indicator and microcontroller circuit on breadboard. Updated the Multisim circuit design.	5	37
Gabe	Fixed all issues with MIDI and font files not loading properly in the Windows port. Patched some runtime error bugs. Wrote a Powershell setup script to install all dependencies for the Windows port.	6	43
Kienan	Kienan had a serious medical issue this week, so was delegated to the sidelines as he focused on his recovery. He should be back in action starting next week.	0	34
Grant	Met with the MechE team and discussed physical space requirements for electronics. Talked with our client to figure out approximate requirements for info board.	5	36

Plans for the Upcoming Week

● Continue work on Windows port
● Look into options for the standalone program to be with the carillon model
● Solder the battery indicator circuit on the proto-board and start design PCB layout.
● Continue work on displaying sheet music as a pdf through the program.