

**sdmay19-11: MIDI Zeusaphone (Singing Tesla Coil)**

Week Report 12

November 15 - December 12

**Client**

Joseph Zambreno

**Advisor**

Craig Rupp

**Team Members**Gunnar Andrews — *Webmaster*Leo Freier — *Interrupter and Micro Controller Lead*Luke Heilman — *Technical Architect*William Brandt — *Pulse Width Modulation Expert*Greg Harmon — *Tesla Coil Construction Expert*Jacob Feddersen — *Communications Specialist*

---

**Summary of Progress this Report**

- Completed website for semester / reformatted website
  - Created demo and final presentation
- 

**Past Period Accomplishments**

- Interrupter circuit design - Jacob Feddersen
    - Research fiber optic signal transmission
      - Researched transmitter and receiver components, and how they are operated
    - Iterate and troubleshoot on interrupter circuit design
      - Experiment with driving transistor switch to control output
  - Updated/Reformatted team webpage for end of semester- Gunnar Andrews
    - Put all up-to-date documentation on the website, updated team page
    - Reformatted and revised pages for typos and visual effect
  - Web UI - Gunnar Andrews
    - Worked with possible web UI for ease of use
  - Modified Scripts - Leo
    - Modified scripts to work with Jake's new code with the PWM pin
  - Presentation & Demo - ALL
    - End of semester presentation and demo
    - Final reformatting of documentation
- 

**Pending Issues**Nothing to report.

---

## Plans for Upcoming Reporting Period

End of Semester.

## Individual Contributions

Team Member	Contribution	Reporting Period Hours	Total Hours
Gunnar Andrews	<ul style="list-style-type: none"> <li>Started working with web UI</li> <li>Worked on Presentation / demo</li> <li>Completed updating website for the semester with most up-to-date material</li> <li>Reformatted website</li> </ul>	12	71
Leo Freier	<ul style="list-style-type: none"> <li>Work on presentation</li> <li>Created demo for presentation</li> <li>Modified scripts for Jake's new code</li> </ul>	11	69
Luke Heilman	<ul style="list-style-type: none"> <li>Presentation</li> <li>Troubleshoot interrupter circuit design with Jake</li> </ul>	12.5	77
William Brandt	<ul style="list-style-type: none"> <li>Work on presentation</li> <li>Planning for next semester</li> </ul>	11	66
Greg Harmon	<ul style="list-style-type: none"> <li>Worked on the presentation</li> <li>Practiced the presentation as a group</li> <li>Began creation of plan for construction of coil for next semester.</li> <li>Found values for the EM field strength that a person can be exposed to.</li> </ul>	12	76
Jacob Feddersen	<ul style="list-style-type: none"> <li>Interrupter circuit design</li> <li>Presentation and Demo</li> </ul>	15	83.5

## Gitlab Activity Summary

commit 8676f0ba4ba4fe1a3b30a14026fbdafc5e251fde (origin/pi\_generate\_wave)

Merge: 94ecf37 c87fe7f

Author: Jake <jtfedd@iastate.edu>

Date: Wed Nov 28 10:01:09 2018 -0600

Merge with master

commit 94ecf37447f5a64f95f8b0dcf8229ac5679124bc

Merge: ade73e8 06f364d

Author: Jake <jtfedd@iastate.edu>

Date: Wed Nov 28 10:00:00 2018 -0600

Pull remote

commit ade73e85f902ee8cea57ac9113b1a9eb93a7de35

Author: Jake <jtfedd@iastate.edu>

Date: Wed Nov 28 09:57:39 2018 -0600

Rename everything so we can merge with master

commit d0e7d141b32d0cb516d88c32bb4455abca1bae5b (origin/documentation, documentation)

Author: Luke Heilman <lheilman@iastate.edu>

Date: Wed Nov 14 10:43:26 2018 -0600

Add new project architecture