

**sdmay23-21: Automatically aligned wireless smartphone charger**

Week 8 Report

November 12 - November 18

**Team Members**Jeremy Noesen — *Software Designer, Scribe*Jack Welch — *Tester, Prototype Designer*Greg Matson — *Tester, Researcher*Malakhi Barkley — *Software Designer, Prototype Designer*Remington Greatline — *Hardware Designer, Researcher*Noah Pritchard — *Hardware Designer, Client Interaction***Summary of Progress this Report**

This week, we have begun actually creating designs for the hardware and software. We have started to look more in depth into parts to buy because of this. We also did some extra testing based on client feedback to ensure the measurements are correct and non-invasive to the original charging circuit. Overall, progress on creating the final design has started and is going well.

**Pending Issues**

There is some confusion about how many waveform captures should occur, so we may need to do more measurements of the coil again. There has been some debate about where the IR sensor should be placed, or even if we should swap the old design in favor of an IR-only design (which we voted against). The other main issue is figuring out which parts to get to prevent making the charger too big.

**Plans for Upcoming Reporting Period**

Create the final design, work on the final design document and presentation, and polish up the website.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Jeremy Noesen	Updated website, did some coil measurements, and begin designing the software algorithms	5	0
Jack Welch	Advanced coil testing	5	
Greg Matson	Research parts to use	4	
Malakhi Barkley	Create hardware interfaces in software	6	0
Remington Greatline	Most of the advanced coil testing	5	0
Noah Pritchard	Discuss future plans for the next few weeks	2	0

---


**Gitlab Activity Summary**

Nothing to report.

---