

sddec18-09: Hidden Guardian

Week 9 Report

April 7 - April 13

Team MembersJennifer Frank — *Team Lead*Thomas Kirby — *Backend Development*Jacob Stilwell — *Computer Programmer*Keng-Yik Ho — *Chief Engineer*Matthew Pedretti — *Hardware Engineer*

Summary of Progress this Report

Due to our discussion with our client, we decided to take the "wire tap" approach to rework our project. This week we created a new diagram and looked at the different benefits and limitations this approach may have. We also spent time working on a practice presentation for our adviser to start solidifying what we are presenting it and how we are presenting it.

Technically, our team created a speaker diagram and purchased basic parts of the speaker to prepare a demo in time for our presentation. We have researched the type of micro controller needed, made the speech to text application fully functioning, and have begun work on a "simulation game" we can use to demo our work. We have also continued to work on mobile application database setup and basic functionality.

Pending Issues

Our pending issues all come from the switch in implementation. Though we don't believe this will be an issue, an unknown right now is how we will handle the audio data from the 3.5 mm jack. We also have concerns for the potential quality of audio data, the amount of battery power we are taking from the controller with our attachment, ability to identify when a new user is speaking, and how user friendly the setup will be. However, we have begun to discuss how we will combat these pending issues and maximize our resources.

Plans for Upcoming Reporting Period

We will figure out how audio data is received from a 3.5 mm jack and then transmit that data to the speaker and the database. We will also need to thoroughly update our project presentation and design document with our change in approach which will help us better understand how we want to update our project presentation. Next week we will close off ties with development by mid-week so our main focus can be how we want to present it in our presentation.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jennifer Frank	This week I focused on facilitating how our team plans to rework the project and what performance areas will be affected and how we can combat that. I spent time working on the presentation and updating the project plan and some time continuing mobile app development.	9	62
Thomas Kirby	This week I worked on making the simulation game that we will have running for our proof of concept. I also have been reviewing the design documentation for edits and extensions	7	66
Jacob Stilwell	This week I worked on setting up slides for our presentation. Then I practiced talking about my parts that I've done. Then I did work on local database setup on the mobile application.	4	36
Keng-Yik Ho	This week I researched methods to tap audio from Xbox controller and to send it to the Bluetooth speaker. I also worked on finding the suitable type of micro controllers needed to receive or transmit the Bluetooth signal. I researched the type of speakers needed to build the speaker system and made sure the speaker impedance and power matches with the amplifier. I then designed an audio amplifier with a fixed gain of 20. Finally, I finalized the parts needed for the speaker system and ordering parts for the speaker system to make the prototype.	7	46
Matthew Pedretti	This week I have continued working on the speech to text application. It is currently in a working state and I have been continuing to tailor it to our needs for the presentation. I plan to remove mic authorization and the status bar, as well as change the behavior for lie confidence translations. I have also been putting in work towards getting the final presentation ready.	10	71