

EE/SE/CPRE/CYBE 492 – sdmay24-17

Engineering Art

Biweekly Report #3

Report Period: Feb 16-Feb 23

Client: Dr. Rachel Shannon

Faculty Advisor: Dr. Rachel Shannon

Team Members:

- Alexandra Whitmer – Team Lead, Frontend Developer
- Karandeep Sandhu – Communications, Hardware Engineer
- Zheyuan Zhang – Lead Hardware Engineer
- Grant DeWaay – Software Developer
- Seyedehbahareh Hashemimovahed – Research, Embedded systems
- Austin Krekula – Lead Cyber Security Engineer

Past Weeks Accomplishments:

Completed Touche, settled on plan of action

Parts ordered.

Initial setup of Android software.

Tasks to Complete:

Start work on UI and software components of project.

Add 3+ more channel on Touche

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Alexandra Whitmer	Started visualizing/creating the android app to be used for displaying data, small prototype of touche code connecting to a metal plate	4	14
Karandeep Sandhu	Continued working on touche circuit implementation.	3	9

Zheyuan Zhang	Touche Gen2	3	15
Grant DeWaay	Help organize materials for demo	W1:6 + W2:6+ W3:3+ W4:3	18
Seyedehbahareh Hashemimovahed	Gave feedback during our first Monday meeting	1	7
Austin Krekula	Contributed with data flow design. Began writing documentation for hardware/software logic.	4	10

Plans for Coming Week:

- Present prototype with the client
- Play more with Touche
- Start implementation of Touche and hardware
- Wait until parts delivered (Copper plated and touch fabric)
- Assembling parts
- Clean up wiring design (build back plate for Arduino wiring)
- Documentation for hardware and software logic.
- Finish data transfer code on Samsung,

Broader Context

1. We have now realized that the audience for our design is not only the public, but also the instructors that bring in our work. So we must consider how they are able to transport it, how they can explain it, the benefit to them as an instructor, and how our design can enhance learning for an entire K-12 classroom.
2. Evidence includes increased interest and openness to adopt our design and reach kids of all ages. We have taken note of positive feedback when we make our design more simple and relevant to the learning environment. This includes using more approachable materials, interactive technology, and positive reinforcement in our digital visualization messaging
3. While we are still negotiating with clients on how complex our implementation should be, it is clear that we want there to be enough connectivity and interactivity that makes our design project include the magic of Disney by using their research.