

## EE 491: Senior Design

sddec23-05

### DNA Data Storage

Jan. 2023 – Dec. 2023

Client: Professor Meng Lu

Faculty Advisor: Professor Meng Lu

#### Team Members:

Colin Frank - Software, 3D printing code, Microsoft's IDE

Evan Walters – Software, 3D printing code, Microsoft's IDE

Caden Wortman – Hardware, General

Astha Upadhyay – Hardware, 3D printer chassis, etc.

Anna Hackbarth – Flow Control, hardware

*Roles will rotate every few weeks to provide everyone with a chance to work in a certain area. Ideally, we've discussed a desire that everything is a team effort, and we work on every step together.*

#### Past Week Achievements

This week as a team, organizing meetings was very difficult due to internet outages, two members of team needing to travel for a school commitment, and midterms. Much of our work and meetings were done remotely and asynchronously.

We had our regularly scheduled advisor and client meeting on Wednesday with Professor Lu. Unfortunately, due to weather conditions, two members were unable to attend. However, discussion and questions about Fusion 360, Flow Control, and the printer code were covered including Professor Lu's suggestions on changes to be made to the coding.

#### Individual Contributions

Name	Contribution	Weekly Hours	Hours-to-Date
Caden Wortman	<ul style="list-style-type: none"><li>Begun brainstorming 3D printed body improvements</li></ul>	.75	5
Evan Walters	<ul style="list-style-type: none"><li>Flagged lines of code to be improved</li></ul>		5
Colin Frank	<ul style="list-style-type: none"><li>Drafted up sample code blocks to change</li></ul>		4.5
Astha Upadhyay	<ul style="list-style-type: none"><li>Begun brainstorming 3D printed body improvements</li></ul>		4.5
Anna Hackbarth	<ul style="list-style-type: none"><li>Wrote Report 6</li><li>Picked up her key</li></ul>	1	5.5

**Pending Issues and Concerns:**

- **Key requests have been taking longer than anticipated but should be available for pick up before spring break.**
  - **Caden, Anna, and Colin's keys are confirmed ready for pick up**

**Next Steps:**

As a team and with our advisor's input, we've decided on the next steps:

- Setup regular separate meeting times to meet in the lab and dissect the 3D printer and process
  - Run a test to see the state of the code
- Begin editing and reviewing 3D printing code
- Design something in Fusion 360, run a test print
- Visit Sweeney office and recollect key forms, go to General Services and pick up lab keys
- Anna – Using key to access office, dissect and learn more about flow control setup

**Conclusion:**

This week was very difficult to meet as a team especially since each of us had 3 to 4 midterms this past week. We prioritized studying for our exams and therefore, have a shorter report this week than usual. We also were not aided by campus network being down for a full day and a bad snowstorm. Along with two members of the team traveling for the Womens' Basketball Pep Band – we struggled to make much headway with our project. This concludes our Report 6.