Contract Fulfillment

Project Goals:

At the start of the semester, our primary goal for this project was to make a hands-free device that can turn a page in a physical book. Some hardware goals to attest for this is an AC to DC converter and a voltage regulator. The main software goal is programming the motors such that one motor precisely lifts a single page vertically and soon after the swiping motor flips the page. Furthermore, if our project worked, we would have liked to add additional sensors such as a microphone to turn the pages.

In regards to our primary goal, we were able to successfully create a hands-free page-turning device. The main software goal was achieved but the hardware goals described above were discarded as we no longer needed them in our project. Instead, for our hardware, we achieved two functioning PCB boards for our device. If we had more time, we would have tried implementing a microphone to turn the pages. We ran into issues with the MCU and the secondary PCB so we were not able to add more sensors. However, we did add a liquid crystal display (LCD) to track the pages turned in the book.

Expectations:

* *Attend the weekly meetings on Tuesday and Thursday*
* *Have your tasks completed by the Thursday deadline*
* *Communicate with the team at least two days before the deadline if trouble arises*
* *Come to the weekly meetings prepared with any questions for TA’s or the rest of the group*
* *Be aware of any emails/notifications from the TA or team members and respond promptly*
* *Be aware of any upcoming deadlines by checking the team and class calendar regularly*
* *Make sure to plan around other class deadlines when possible and communicate with team members when another deadline interferes with ECE 445*

All team members followed the rules listed above. These rules helped the team stay on track and show meaningful progress throughout the semester.

Roles:

Our team has been performing well because everyone has been contributing equally and everyone has contributed to the group assignments such as the design document. The specific individual roles are listed below. Anything that came up outside of these roles was tackled as a team and our general roles stayed the same throughout the semester.

Adia - Designing the PCB and updating it accordingly, keeping the team on track by setting the weekly agenda, and helping with soldering.

Alyssa - Working on any additional hardware required, soldering the PCB components, and taking charge of verifications and requirements.

Javi - Programming the microcontrollers, motors, switches, and LCD.

Agenda:

When we had to make decisions about the project, the team decided on the best approach together. Adia was in charge of setting the agenda for the week and was the primary record keeper. At our weekly meetings, we reviewed everyone’s individual progress and we went over tasks that need to be completed for the following week. As mentioned above, whenever an issue came up with the project we tackled the problem as a team.

Team Issues:

The team worked well together and we had no team-related issues. Everyone had clear communication and expectations of one another. Overall, each team member contributed equally to the project and met their tasks' individual deadlines. The team did not run into these issues because the rules we set out in the team contract were clear and reasonable.