

EE/CprE/SE 4910 WEEKLY REPORT 6

10/28/25 - 11/4/25

Group Number: sdmay26-40

Project Title: True Force Technologies Arcade Rack

Client: True Force Technologies

Advisor: Matt Post

Team Members/Role:

Jacob Garcia - Frontend Development

Dylan Longlett - Frontend Development

Andy Drafahl - Team Manager, Frontend Development

Fadi Masannat - Frontend Development

Sofi Gutierrez - Backend Development

Parnika Dasgupta - Advisor/Client Liaison, Backend Development

Colin Yuska - Electronics

Weekly Summary

This week, the team worked on design elements and also picked up some extra responsibilities. Fadi presented a complete (and very much needed) revamp of the repo, along with design documentation that the group will follow moving forward. Parni presented visual assets that she gathered, and the team decided on the appearance of avatars and backgrounds based on those assets. Dylan shared his arcade screen design, which is fully animated in Figma using React components. Sofi and Andy shared their animation frames and React code to animate those frames. Jacob got the Bluetooth working with the rack—which is a huge milestone—and showed it to the team in a live demo. Colin continued configuring LEDs and other hardware components. There was a lot of progress made this week, and with the further clarity about development that Fadi provided, the team is in a good position for this week as well.

Past Week Accomplishments

Jacob Garcia

- Fixed the Color Picker problems that the app was having when launched on an Android device. After this, the color customization branch was merged into main.
- Reviewing the other team's Bluetooth code to better understand how it worked. Then I proceeded to implement this into our app so it can now take in live data from the True Force Rack.
- Reviewed the Git standards document.

Parnika Dasgupta

- Researched several character avatars and discussed with the team what our final avatars should look like
- Researched several backgrounds for our avatars to deadlift
- Continued working on Git tutorials

Dylan Longlett

- Created the prototype home screen for arcade mode
- Reviewed the Git document
- Helped set up the physical rack and tested the rack

Fadi Masannat

- Published my 16-page, in-depth documentation for the new Architecture I have proposed.
- Onboarded the team with new design principles and basic repo exposure
- Finalized most config files (tailwind, metro, babel, etc) in the repo
- Reviewed Git documentation

Sofi Gutierrez

- Created the prototype animation that had two versions, one normal lifting, the other was a very similar version but had "struggle" effects throughout the lift
- Reviewed the Git standards document
- Reviewed the architecture and refactor document

Colin Yuska

- Tested hardware additions, specifically working to add individually addressable LEDs
- Created infographics that are easily understandable to users not familiar with the product

Andy Drafahl

- Created team assignments with full descriptions of tasks to be complete for each member.
- Researched and completed the Git Standards document with a complete guide of Git commands to use when interacting with the repo, in addition to a quick reference guide with all relevant commands.
- Researched ways to animate Sofi's drawings in the app for a demo. Got as far as animating the frames, but the code needs to be reworked to directly correlate lifting values with animation frames.

Pending Issues

We're working on getting Tailwind functioning in the repo, which has proved challenging so far. We have two team members working to resolve the issue, though, so we should be able to fix it soon.

Individual Contributions

Name	Individual Contributions	Hours This Week	Hours Cumulative
Jacob Garcia	<ul style="list-style-type: none"> - Fixed issues with the Color Picker for Android. - Looked into the other teams code to understand their bluetooth implementation - Implemented bluetooth for the app. - Reviewed the final draft of the Git Standards document. 	9	36
Parnika Dasgupta	<ul style="list-style-type: none"> - Found our avatar - Found our background - Continued working on git tutorials 	5.5	24
Dylan Longlett	<ul style="list-style-type: none"> - Created the prototype home screen for arcade mode - Reviewed the Git document - Helped set up the physical rack and tested the rack 	6	26

Sofi Gutierrez	<ul style="list-style-type: none"> - Created over 200 images for the animation of the lift - Reviewed potential software tools to create the animations 	7	28
Colin Yuska	<ul style="list-style-type: none"> - Tested hardware additions, specifically working to add individually addressable LEDs - Created infographics that are easily understandable to users not familiar with the product 	4	24
Fadi Masannat	<ul style="list-style-type: none"> - Finalized Architecture and Repo refactor and restructure implementing new design patterns and principles - Built a comprehensive in depth documentation for the new refactored repo - Onboarded team and reviewed Git principles 	5	32
Andy Drafahl	<ul style="list-style-type: none"> - coming up with team assignments and writing descriptions. - Researching and finishing Git document. - Making animation feature using React. 	9.15	33.75

Plans for the Upcoming Week

Jacob Garcia

- Figure out and debug Fadi's branch. Get it to render correctly.

Parnika Dasgupta

- Follow Fadi's document and start implementing fields in accordance with the new model for the repository
- Keep requesting access to the old backend cloud storage
- Work on setting up the LEDS with Collin

Dylan Longlett

- Take the current arcade screen Figma design and refactor it to work with the Tailwind setup that Fadi and Jacob are fixing.

Fadi Masannat

- Fix NativeWind CSS implementation with Jacob, as it is not rendering properly.
- Get started with Docker and GitHub Runners to automate pushing to main and running all tests and builds.

Sofi Gutierrez

- If given access to the old backend, start working on the backend; if not, start our own database, setting up what we know we will need for our frontend.

Colin Yuska

- Continue to develop graphics for useful presentation materials
- Finish addressable LED work and begin research of power source and speaker for noise additions to the TrueForce Rack

Andy Drafahl

- Complete the animation code and get it working in the reconfigured repo.
- Research animators, whether locally or online.
- Solidify the avatar design to show to the client.

Summary of Weekly Advisor Meeting

There was a snafu with scheduling, and so our advisor meeting was dedicated to solidifying a new meeting time. The client was not able to attend.