CI 103 - Team Charter
Team

Lab section: 066

Team Number: 4

Team Members and Roles

Name	User ID	Role
Katarina Galic	kg896	Product Owner
Garrett Crayton	gkc37	Scrum Master
Trang Hoang	tmh327	Front-end developer
Sina Ahmadi	aa4279	Back-end developer
Eden Fry	emf86	UI Designer

Project mission or Anchor statement:

Our mission is to deliver a functioning pillow alarm clock by embedding multiple pressure sensors and vibration motors. We want to provide our users with a product that will allow them to wake up on time and without making much noise. We want to revolutionize the sleeping experience and provide people with the perfect solution to issues that arise when you share a room with someone.

Success is …

Success will be when the product is able to fulfill the most important aspects of the project, specifically the actual alarm function and a companion application.

Fulfilling the actual alarm function requirement is defined as the vibration motor being engaged at the user defined time and disengaging when the pressure sensors detect that the user is no longer resting his/her head on the pillow. If the pressure sensors are triggered within 5 minutes of the motor being disengaged, the alarm function will be called 5 minutes after the sensors are triggered. This will be tested by setting an alarm and seeing if the motor is engaged at the appropriate time.

Fulfilling the companion app requirement is defined as having a functioning companion application for the product. This application will allow the user to set the alarm to his/her desired time, along with any other desired settings. Behind the scenes, this application will calibrate the Arduino's internal clock based on the computer's internal clock. The companion application will also import collected sleep tracking data from the Arduino and export this data to the sleep tracking database. Testing will be done by checking the accuracy of the Arduino's internal clock against the internal clock of several computers, checking the user's sleep tracking data has been imported to the sleep tracking database, and by confirming that the Arduino is set to the appropriate settings.

Done is …

- When a task meets all teammates' standards and we agree that what we have is something we could present as a part of our project
- When each aspect has adequately passed all tests
- When each task has reached an acceptable standard of reliability

We work best together when …

- We divide tasks between team members and contribute equally.
- We reply in a timely manner and act responsibly
- We update our teammates with the changes that are made
- Meet up in person, if we are working on a task that can be done without meeting, we try to do it over a group call.
- Stick to the plan and ask for help if one of us gets stuck
- Keep an open mind when it comes to small tweaks and big changes

Team Calendar:

- We will try to meet in person as much as possible, now that our project relies heavily on development
- Since our schedules are very different, we will try our hardest to meet during the weekends and work on our project together. Additionally, we will try to meet up during the week, in groups of at least two. Throughout CI102 we usually met up in the library outside of class and we plan to meet in the library this term as well.
- Team members are expected to commit a minimum of 3 hours outside of lecture and lab, as well as try to learn and master the necessary skills in their own time

Identify the open issues and/or technology gaps related to your project: (100-300 words) :

We hope that we will be able to complete all the tasks that we have outlined in our scope as well as tackle the optional ones. Our biggest issue from the start of this project is acquiring an appropriate level of familiarity with Arduino language and accompanying hardware. When we started the project, none of our team members had experience with Arduinos, and we have come a long way since then. Another issue is fabrication, specifically making sure the wiring is strong enough to not disconnect during use while still maintaining a simple design that will be comfortable for the users. Additionally, we will have to learn how interface our sleep tracking database and our companion application. Lastly, we must decide what we will use to develop our application and whether it will be web based.