Cindy Fan, Rick Huang, Maggie Liu, Ethan Zhang
October 20, 2014
2f: Design Check-in

Tasks

Tracking Liquid Intake Over Time - Easy Task

Albert is a software developer in his late 20's, working for a tech company at Fremont. Recently, Albert has begun to pay more attention to his health, and tries to live a healthier life. He learned that drinking 8 glasses of water each day is a good way to keep himself hydrated and healthy. Now, he is trying to record all the liquid he takes in a day to see how much coffee, soda, water, and other beverages he consumes. Albert does not want to spend too much time recording his liquid intake, and is looking for a quick and efficient solution so he can keep track of his liquid intake for a long-period of time.

Education on Hydration - Easy Task

Briana is a junior student at University of Washington. Briana carries her laptop and Samsung S5 with her to school on most days. Brianna cares a lot about her body and goes to IMA regularly to stay fit. On Facebook, she saw a before-after photo of someone who drank one gallon of water a day for three months and was amazed by the body transformation. Brianna wants to drink more water to keep herself fit and slim, but she is not sure about when the best time to drink water is, and what the best amount for her to drink in a day is. Brianna is looking for information and tips about drinking water occasionally, and does not want to spend too much time researching and reading articles online to learn everything she wants to know.

Convenient Reminders to Drink Water - Moderate Task

Charlie is always busy with classes and occasionally needs to refill his water bottle or drink at water fountains. Charlie is a senior student in the CS department at University of Washington. He is super busy with his last year. Sometimes, Charlie will bring a water bottle with him, but most of the time, he will just drink at water fountains when he feels thirsty. Charlie wishes that there is something that can remind him to drink water at different times during the day, especially when he is conveniently close to a water fountain or a water bottle refill machine on the UW campus. Charlie wants a friendly reminder that would not interrupt him too much since he already has enough outside interruptions.

Smart Beverage Suggestions - Moderate Task

Daniel is a freshman student in Lakeside high school. He is one of the top players on his high school football team and spends two hours training with the team after school and with his dad every morning. During the game season, Daniel's training becomes even more intense. He always brings a water bottle with him to school, and would drink sports drinks during training or games. Daniel feels like his water consumption varies significantly depending on the time of his training, and the current weather. Daniel would like to know how much water he should consume to keep himself hydrated depending on the activities he has and the weather (temperature, humidity, etc.).

Finding Motivation for Proper Hydration - Hard Task

Elliot is a finance analyst working for Symetra in downtown Bellevue. His work schedule is very busy and stressful. He drinks at least three cups of Starbucks coffee during the day to stay reactive and sharp. Elliot knows that he is sometimes dehydrated and needs to drink more clean water than coffee and other beverages. Elliot has a mobile app that allows him to accept challenges for running a certain miles during the month (his friends can see his progress with the challenge). He wants to find a way to keep himself motivated to drink more water that works similarly to the challenge acceptance model.

**Accurate Dehydration Detection** - Hard Task

Frank is a product manager working in downtown Seattle and trail running and biking are some of his favorite leisure activities. He always goes on a 4-mile run every Saturday morning and a 15-mile biking route on Sunday afternoons. Although he tries very hard to keep himself well hydrated during these activities, sometimes he too immerses in the activities and forgets to pay attention to his body's hydration level. Frank wants something that can quickly detect his hydration level and gives him suggestions of what to do or drink according to his current state of dehydration.

Design 1

This first design is a smart water bottle that has sensors to detect various qualities about its contents, can display information through a screen, and can even send data to a website. All of the functionality of the product is within the water-bottle itself, so there is no external mobile application that performs any fundamental tasks. The website (or other platform) is purely for display convenience for the user.

Task 1: Tracking Liquid Intake Over Time

The water bottle has a sensor to detect how much water it has and remembers how much water the user has consumed, displaying a graphic to show the users their progress on their preset daily water intake. The water bottle sends this water consumption information to a website that graphs the data.
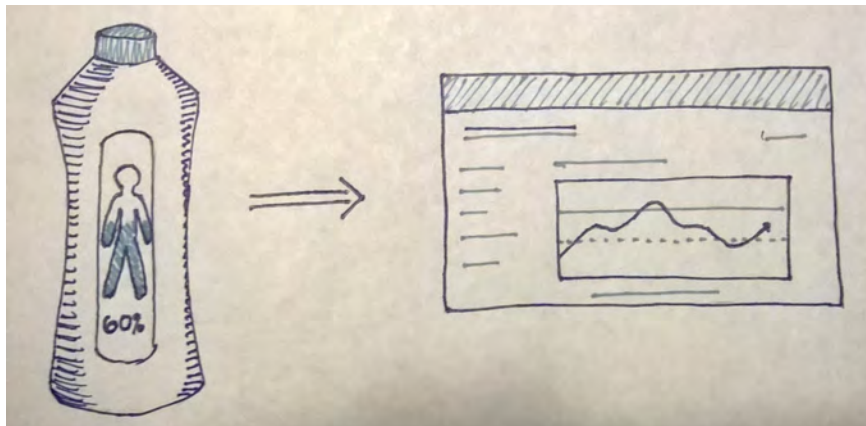
The water bottle tracks water consumption and sends the data to a website to display in a graph.

Task 2: Convenient Reminders to Drink Water

The smart water bottle will remind the user to drink water by turning red in color and display "DRINK ME!" text if they are not on track to complete their daily water intake goal. It will also remind users to refill the bottle if it is empty and there is a water fountain nearby.

The water bottle reminds the user to drink and refill water at the best times using additional color cues.

Task 3: Smart Beverage Suggestions
    The water bottle has a feature of having two compartments to hold two different beverages at the same time that can be used if desired. The water bottle will learn the user's drinking habits and suggest different beverages to drink when the user is most likely to drink it.

The water bottle has two compartments for different beverages and suggests drinks for you.

Task 4: Finding Motivation for Proper Hydration
    People are goal driven and the smart water bottle allows the user to set various goals on how much water he or she wants to drink. The goals can be for daily water intake, amount to drink by the hour, or long term improvements.
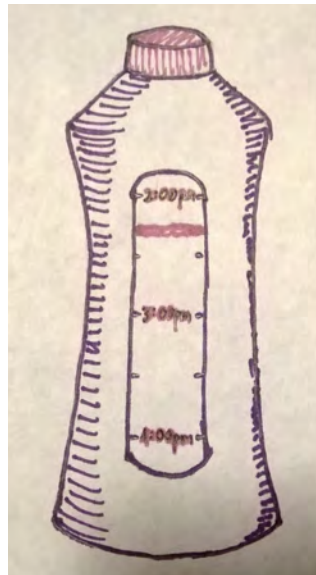
The water bottle allows the user to set and track various goals of different types and lengths.

Design 2

   The water sensor consists of a mass detector(how much you drink), a ingredient detector, a bluetooth transmitter and a rechargeable battery and users can throw this sensor in any bottle or cup they desire. After pairing with users' smartphones, the sensor will start collect data inside the container and transmit collected data back to the paired phone. The phone will receive data about the amount of liquid consumed over time and the ingredients of the liquid. The application will log these data and analyze them with the predefined goal and timetable and then notify user when needed.
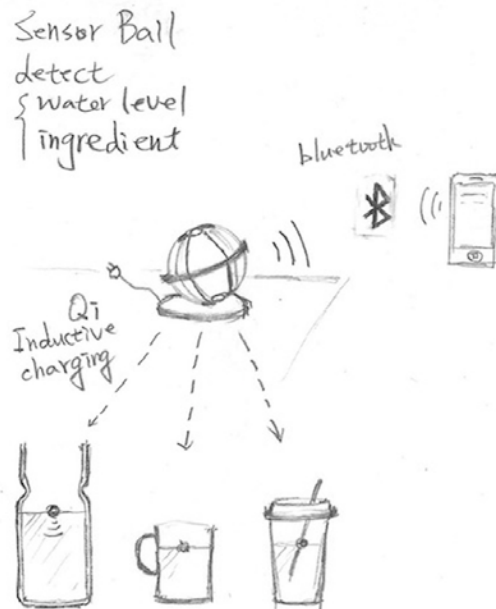
Task 1: Tracking Liquid Intake Over Time

   User pairs the sensor with his or her smartphone. After pairing, the sensor will automatically return the amount of liquid consumed back to the phone's application, and therefore the process will not need user's attention.
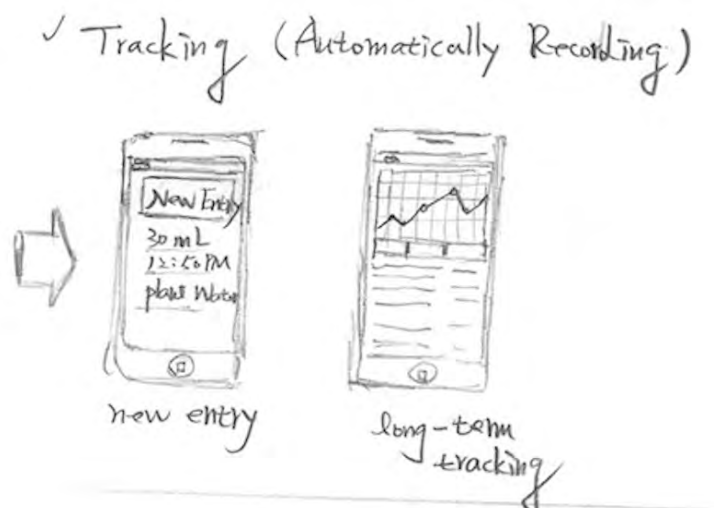
Task 2 & 3: Education on Hydration & Convenient Reminders

      User selects his or her drinking goal and inputs personal information, and then application will return a suggested drinking timetable and provide explanations as well as drinking tips. Application will continuously receive data from sensor and compare these data with selected drinking plan. Application will also notify user when user needs to drink more.

Task 4: Smart Beverage Suggestions

      Application will receive the data of ingredients inside the bottle and log the amount of each ingredient consumed (caffeine, sugar, water ...) and then calculate the effect on user. When needed, application will notify and suggest user stopping drinking a specific beverage or drinking more water.

Design 3

The design merely focused on mobile app, it can help users track their liquid intake, remind them smartly to drink water during the day. Also, the design will occasionally provided useful water drinking tips, and give suggestion about water intake to different users.

Task 1: Tracking Liquid Intake Over Time

For tracking liquid intake, users first select which type of drink they just finished. Then choose a specific drink in that category and choose or manually enter the amount of the drink.
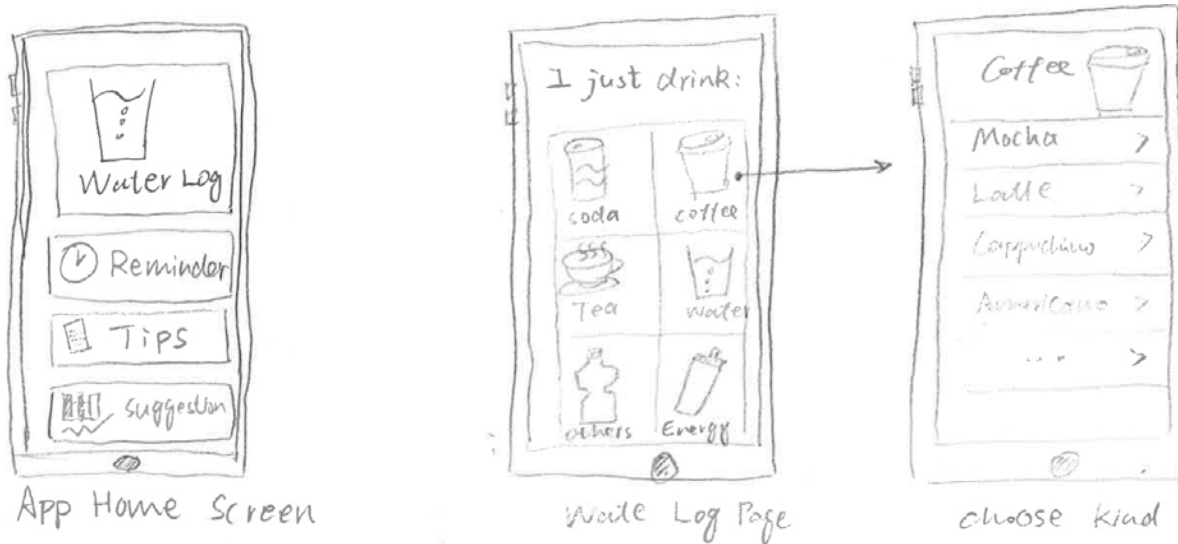

Task 2: Smart Reminder Setup

Reminder will allow users to set up their smart reminder on the app. First fill or import the calendar (google calendar, apple calendar), and today's calendar will appear on the screen. User can also set up locations where they don't want to be notified. The reminder will be automatically turned off when user don't want to be interrupted based on his/her calendar and location.
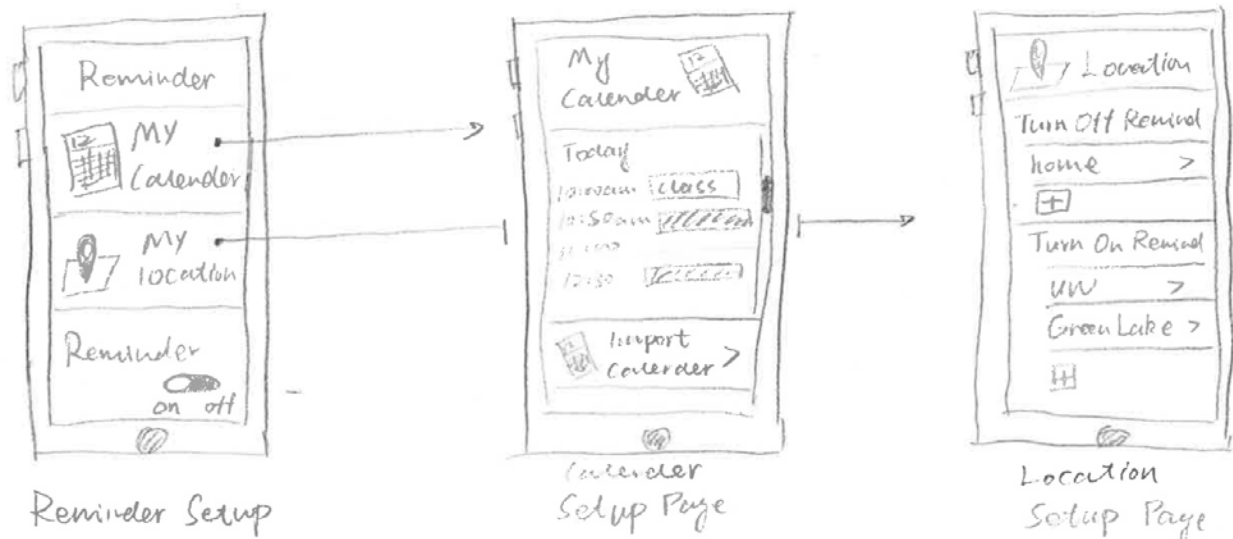
Task 3: Tips for Water Intake

Users can go to tips to get quick tips about water intake. When needed, just click the tips from the home page, and select the tip they want to read (user can also share this tip to social media).

Drinkly Tips Page.

Tips Page.
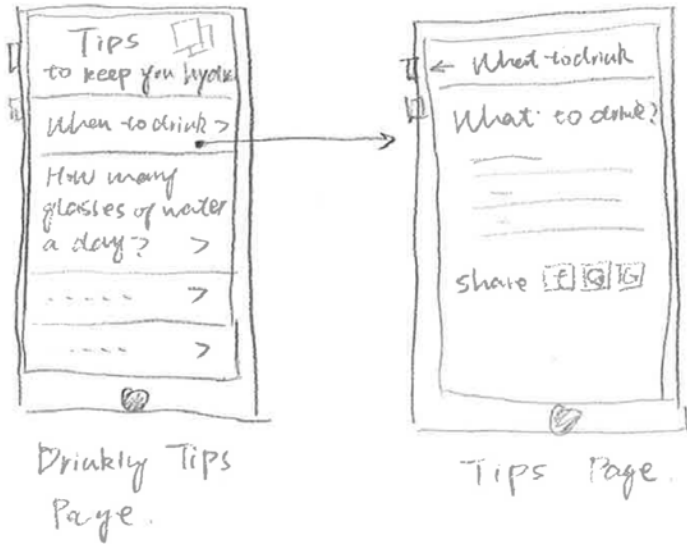
Task 4: Water Intake Suggestion for the Day

Suggestion option could help users to determine how many water they may need and show amount of glasses of water they still need after tracking user's liquid intake and interpret that with local temperature, and humidity.

Suggestion Home

Daily Data Visualization

suggestion Detail