



Mask Pouch

Design Vision

Index

Project Summary and Expectations.....	p. 3
Key Personas and Requirements.....	p. 5
Big Ideas and Major Anatomy.....	p. 7
Scenario Storyboards.....	p. 10
How the Design Serves Persona Needs.....	p. 17
Design Language(s).....	p. 18
Resources.....	p. 27
Colophon.....	p. 28

Project Summary and Expectations

The Mask Pouch is a convenient solution for sterile mask storage and cleaning while on the go. By harnessing the germ-killing power of UV lights, the Mask Pouch can sterilize whatever is placed inside. Plus, it has a built-in battery so you can clean without waiting until you get home. Also, this eliminates the need for harsh chemicals or excessive amounts of water to ensure the cleanliness of your masks.

The Mask Pouch also has a companion mobile app designed to make managing your masks a snap. Using the app, you can connect to your pouch using Bluetooth to set cleaning schedules, set notifications for when to safely swap masks, check the pouch battery, and so much more. You can even share your mask usage with friends!

In terms of material design, this pouch is a portable, flexible design with an optional strap. It can be hooked easily onto a backpack, slid into a pocket, or even worn like a purse. However, there have been some concerns voiced about this product. First, in terms of exterior, the initial design plan was to allow for a customized fabric exterior. Upon further analysis, this plan seems expensive and not in demand for our targeted market. So, the alternative is producing Mask Pouches in various fabrics and designs that can be selected from, but not customized as initially planned. Second, there have been concerns about the safety of UV radiation. After thorough research, the only potential risk of harm is from direct exposure to the UV lights during cleaning. Since we have a safety lock on the pouch that disables the cleaning bulbs while the pouch is open, we are greatly mitigating the potential risk of harm associated with the use of this product. Third, there have been some app features that we have determined to be redundant after conducting our research. For example, maintaining a cycle count for each mask seems like excessive data entry on the part of the user and would require a great deal of additional hardware

that is not worth the additional cost. App features are more flexible, and they are being developed with some capacity for change. In fact, a new feature we've added is an ability to check your environmental impact as a result of using the mask pouch. Track how many gallons of water you saved, how much electricity as a result of saving on disposable masks and saving a load of laundry, and more.

Key Personas and Requirements

We have three key personas: Sally Stillwell, Harris Reede, and Susan Klawitz. Sally is our environmentalist – she is willing to speak her mind, call out people for failing to mask up, and is passionate about social justice. She is reflective of the section of the market interested in using the mask pouch to cut back on environmental waste and show everyone around her that she is passionate about safety and doing her part to slow the spread. Next is Harris Reede. He is more interested implicitly signaling that he is doing his part to reduce the spread. He is also wildly into accessories and uses the pouch not just as a means of cleaning, but as an accessory. He straps it on using the convenient strap hooks and shows off the design he chose. Last is the mom, Susan Klawitz. Susan’s goal is to cut back on unnecessary time spent cleaning and is passionate about stretching every minute of every day to spend as much time with her kids as possible, despite their busy schedules. She loves setting cleaning schedules in the app as it allows her to stay organized, safe, and sterile while running around town.

To satisfy the needs of all of these varying personas, there are a few requirements for the Mask Pouch. For Sally, we have prioritized convenience. Masks can be interchanged quickly, and the cleaning cycles are fast while still busting all the germs resting on the mask. Plus, we prioritized efficiency to minimize our environmental



Sally Stillwell



Harris Reede



Susan Klawitz

damage. For Harris, we spent time ensuring that there is a Mask Pouch for everyone's style. Plus, we added some hooks to the outside of the pouch so it can escape the backpack and pocket to be flaunted not only as a means of cleaning, but as an accessory too. Plus, we made sure to cut back on heavy hardware or stiff components to allow users like Harris to wear it however they may choose without being weighed down. And last, for Susan, we've optimized our app for efficiency and convenience. We have customizable notifications for anything you may need – scheduled cleaning cycles, personalized reminders, mask tracking, and more. Anything that a busy individual may need is just a few taps away.

Big Ideas and Major Anatomy

For our interaction framework, we decided to utilize parallel workspaces for our mobile app. We felt this would work best due to the limited space available on a smartphone screen and allowed easy access to all functions the app offers. In multiple areas of the app, there are specific workspace navigation tools such as buttons and collapsible menus. We added this to help make the screen less cluttered and offer navigation to isolated screens.

On the home screen (Fig 1), we display how much time is left in a current cycle. We also have navigation options in the form of buttons to allow the user to go to the schedule and usage report screens. On the bottom of the screen, the user can switch between the parallel workspaces (the home screen and the settings page).

On the schedule page (Fig 2), the user can adjust when they receive notifications about when to clean their mask or charge their pouch. They can click on any highlighted date to receive more information or click on the plus sign button and add a new update.

This screen is accessible from the home screen via a button. The back button allows the user to return to the home screen.

The usage report (Fig 3) is accessible from the home screen and the settings screen under the battery tab. The back button allows the user to return to the screen where they pressed the

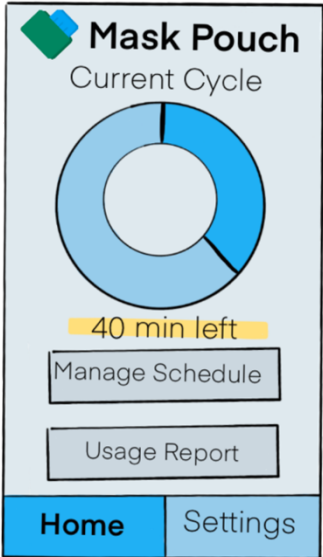


Figure 1

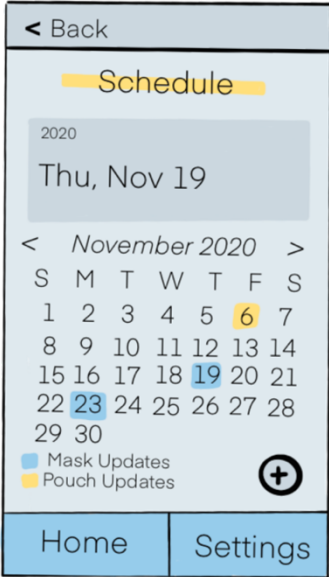


Figure 2

usage report button. This screen allows the user to view statistics based on their use of the app and pouch.

The settings screens (Fig. 4 & 6) allow the user to adjust the app to their liking. They can also view the pouches' battery and how many cleans they have until they need to charge it. The user can view what environmental impact they've had as well.

The pouch itself (Fig. 5), has limited interactivity, but does allow users to start and stop cycles without the app. The pouch also has a Bluetooth button to allow the user to connect their pouch to a smart device. There is also a power light that signals to the user if the pouch is charged: the light is blue if there is greater than or equal to 20%, the light turns red if there is less than 20%, and the light turns off if there is no charge.

The form of the pouch is similar to a pouch-like wallet and is about the size of a pants pocket. This allows many users to carry the pouch without having to hold it or have a bag to carry it in. The pouch also has loops on both ends which gives users the ability to add straps to increase portability.

The pouch itself is made up of two sections. The majority of the pouch is constructed with recycled cloth which houses any object the user wants to be cleaned. To one end of the pouch there is a

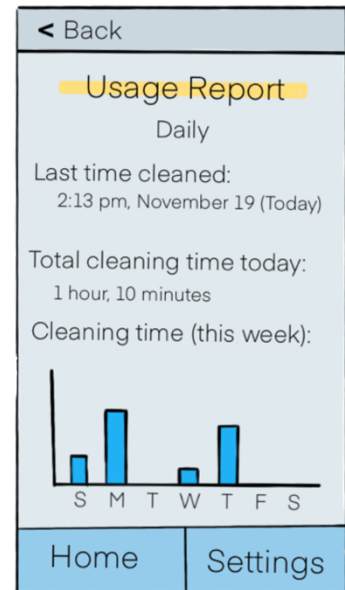


Figure 3

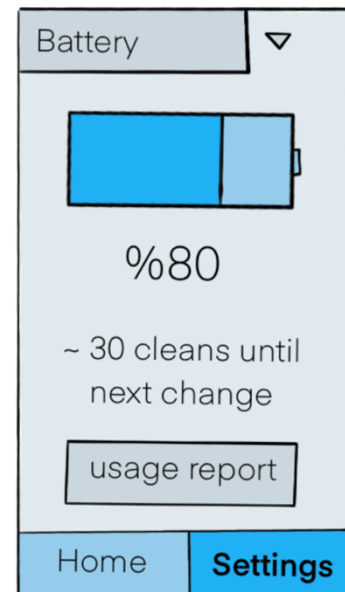


Figure 4

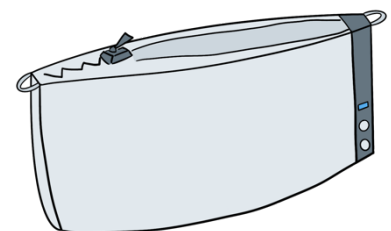


Figure 5

small hard plastic section which houses the two buttons and the battery light as well as all technology involved in making the pouch work.

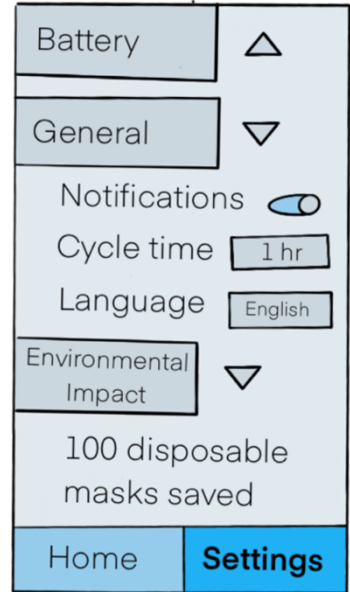
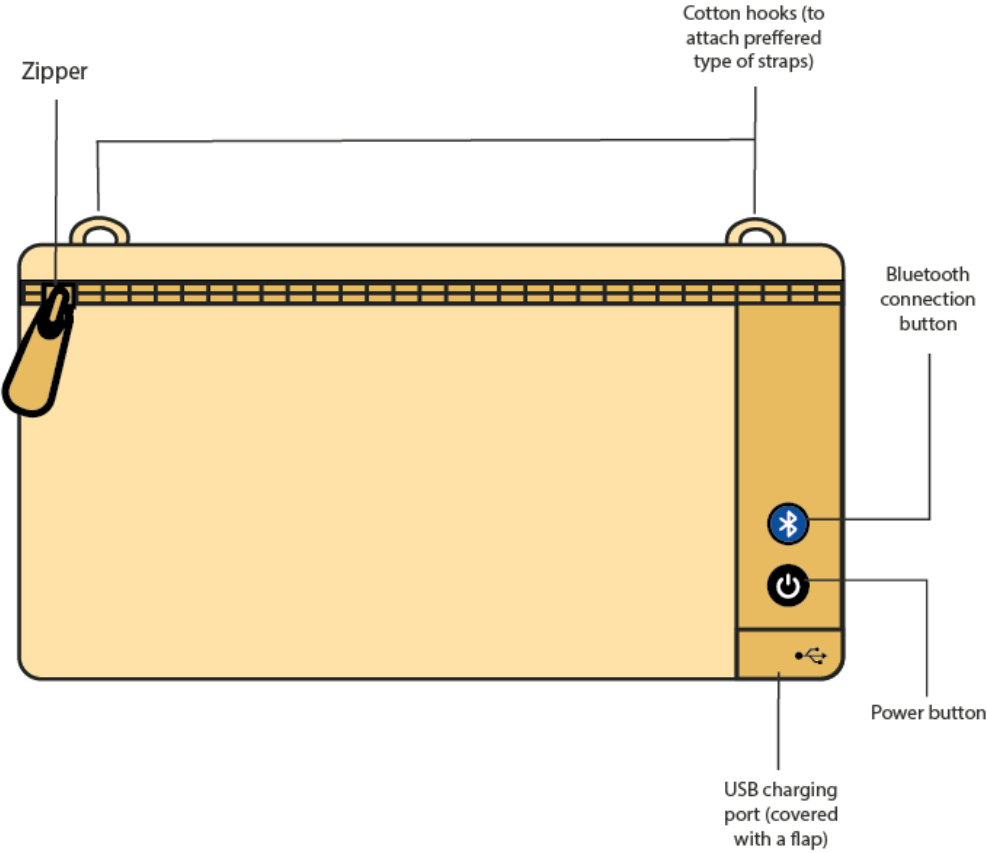


Figure 6

Scenario Storyboards

We have created storyboards to better illustrate the way the users can interact with our product. Our storyboards are categorized into three main categories, storyboards about software interactions, hardware interactions, and a combination of both.

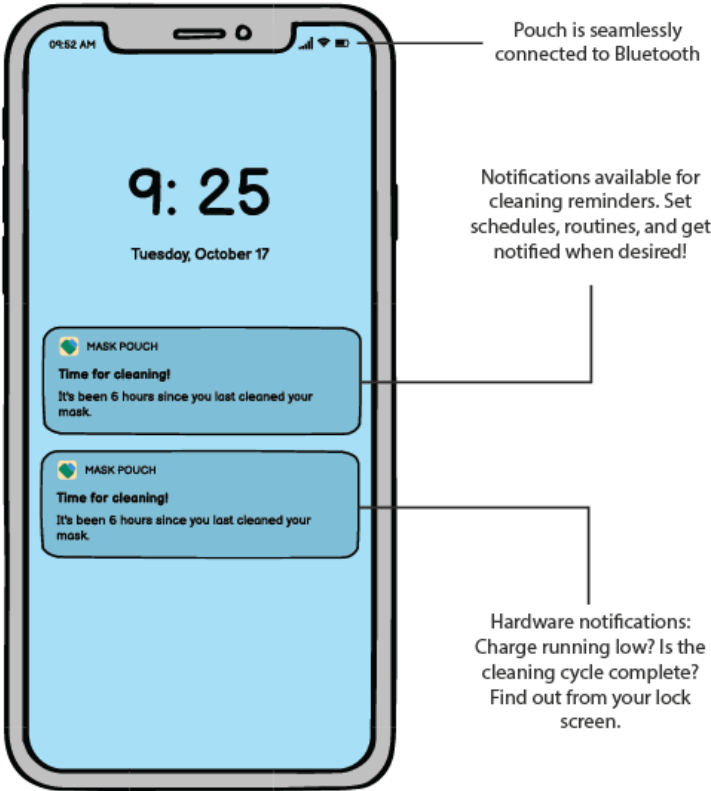
Mask Pouch components



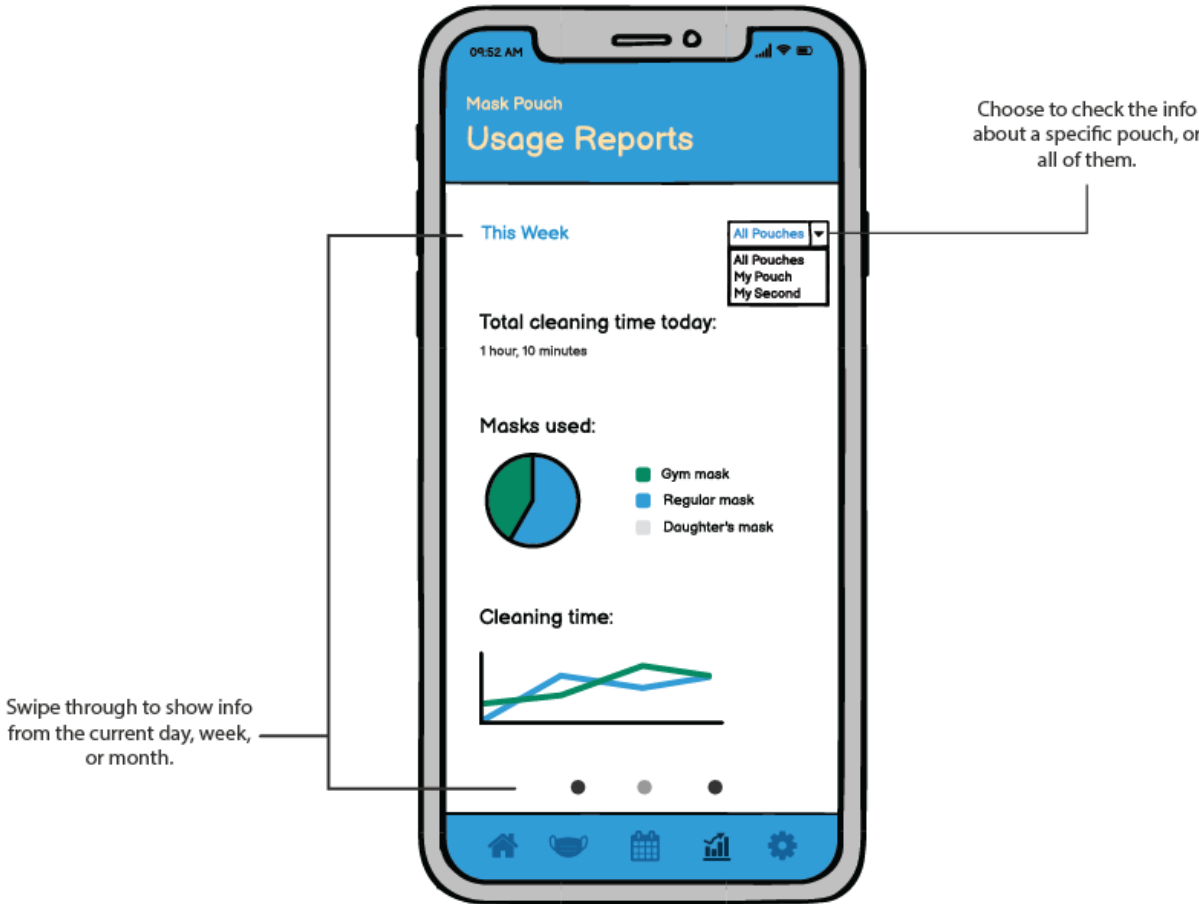
The first set of illustrations that clarify the software interactions, include storyboards about:

- The notifications the users will get from our app
- How the user can check their usage reports.
- Clarification on how to manage their schedule.

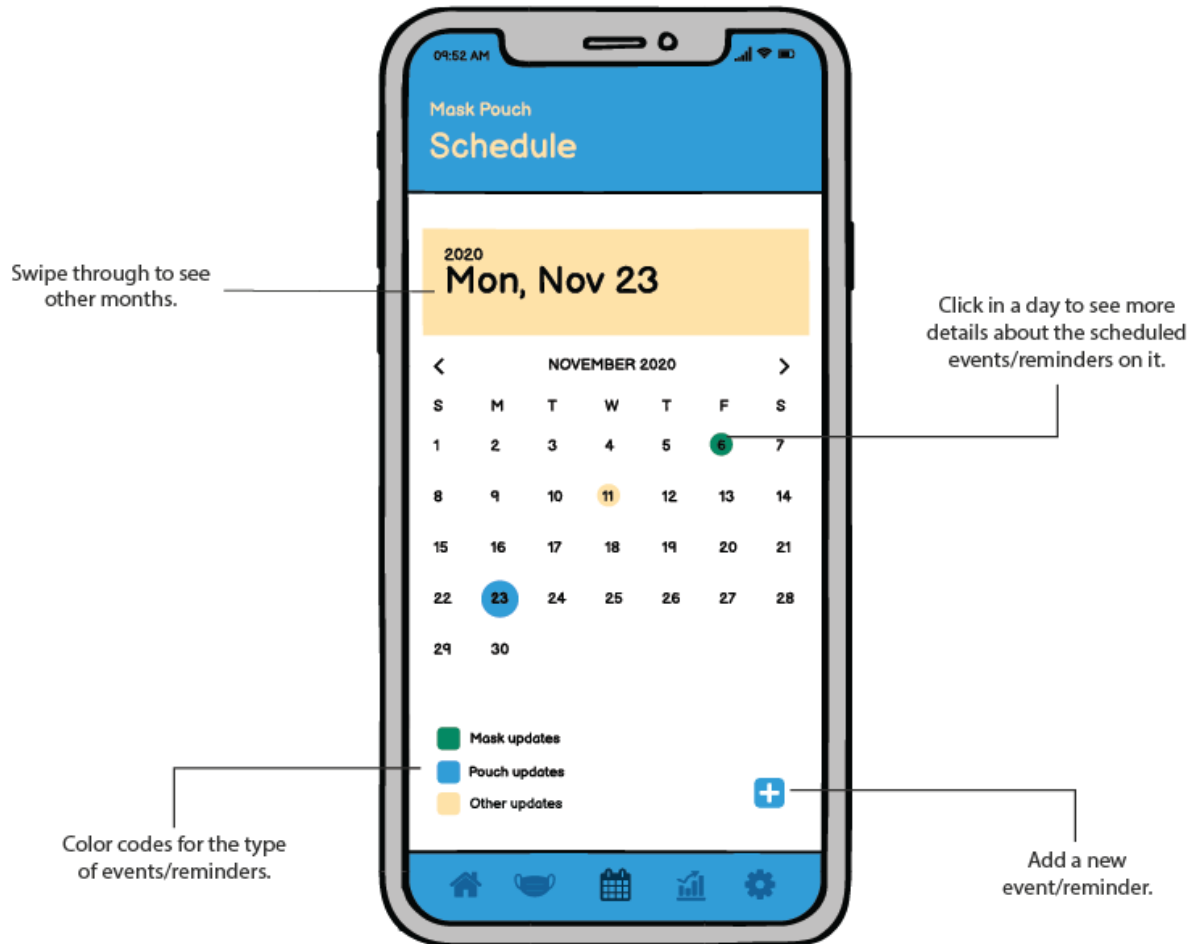
Notifications from Mask Pouch



Checking Usage Reports



Managing Schedule

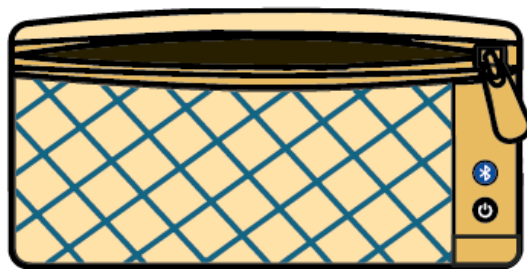
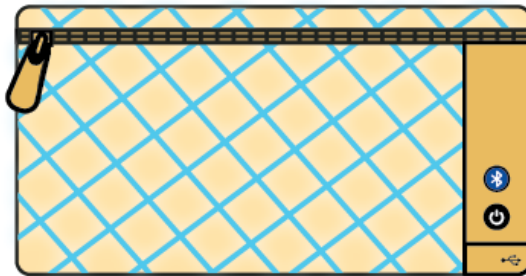


The second set of storyboards that show hardware interactions includes information about:

- Turning the pouch on and off.
- Clarification on the LED lights safety precautions applied in the product.
- Charging the pouch.

Activating the LED lights

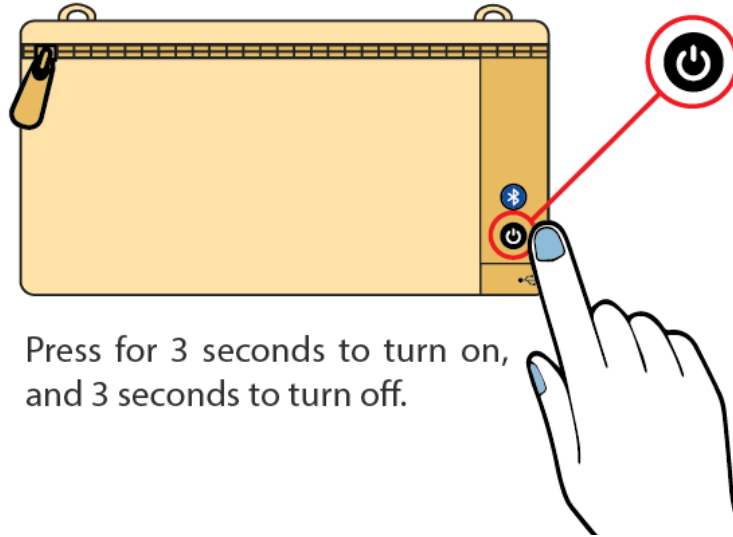
The pouch must be turned on, and the zipper must be fully closed in order for the LED lights* to turn on.



Whenever the zipper is open, the LED lights* won't work.

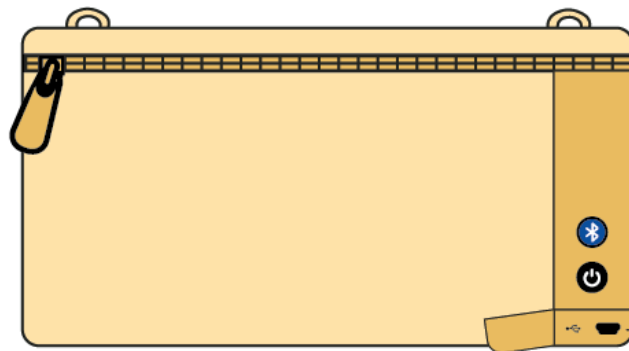
* The LED lights are not visible whether they are on or off, because they're encapsulated in the insulating pouch. The blue lights depicted in the pictures are just for visual representation.

Turning on your pouch



Press for 3 seconds to turn on,
and 3 seconds to turn off.

Charging the pouch

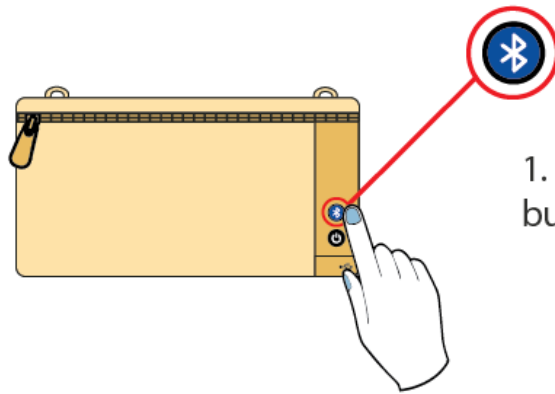


Open the flap to plug in
the cable, in order to
charge the pouch.

The third and last set of storyboards represents interactions that combine both the software and hardware aspect of our product. This includes clarification on:

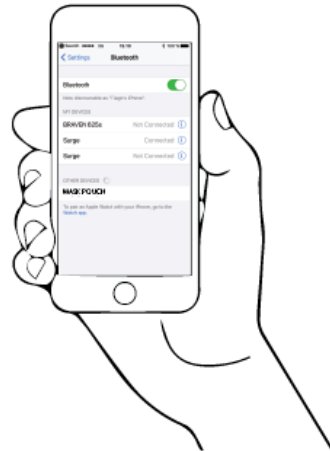
- Connecting the pouch to the mobile app, via Bluetooth.

Connecting your pouch to your phone



1. Press the bluetooth button for 3 seconds.

2. Go to the bluetooth setting on your phone, and connect to the pouch once it shows up.



How the Design Serves Persona Needs

Context Scenario	Functional Needs	Functional Elements
<p>Sally noticed an accumulating number of masks littered on the pavement and surrounding the dumpster among the seagulls looking for an easy snack.</p>	<ul style="list-style-type: none"> • Clean masks for the purpose of reuse • Cut down on disposable mask usage 	<ul style="list-style-type: none"> • Kill germs on masks and/or other objects to ensure safe level
<p>Sally shows her friend how easy it is to sanitize a mask using the pouch and how it can be monitored using a companion app on her phone.</p>	<ul style="list-style-type: none"> • Wireless connectivity • Should allow user to control cleaning cycle remotely 	<ul style="list-style-type: none"> • App should be able to remotely activate mask pouch cleaning cycle • Notifications appear to notify user of each cycle
<p>While driving her daughter to their little league soccer game, Susan carries her mask pouch in her purse with all three of the family members' masks inside.</p>	<ul style="list-style-type: none"> • Large enough in order to hold multiple masks • Able to be organized 	<ul style="list-style-type: none"> • Should be available in multiple size options • Multiple compartments to organize masks
<p>At the end of the day when all the kids are done with their masks, Susan tosses them all into the pouch in order to sterilize them.</p>	<ul style="list-style-type: none"> • Can handle cleaning multiple masks at the same time 	<ul style="list-style-type: none"> • Made out of a fabric that will not degrade rapidly over time
<p>However, ever since the new fanny pack version was released along with personalized customization, Harris is proud to brandish his new hot-rod flame patterned mask pouch around his waist whenever out in public.</p>	<ul style="list-style-type: none"> • Customization choices that allow for a variety of personalization options 	<ul style="list-style-type: none"> • Different pre-made patterns and colors • White canvas material for more personal customization
<p>As a photographer, Sean is already carrying around a backpack-full of equipment at all times and isn't able to find a way to conveniently squeeze in the mask pouch.</p>	<ul style="list-style-type: none"> • Needs to be easily storable 	<ul style="list-style-type: none"> • Smaller size options • Flexible material

Design Language(s)

Section 1: Mask Pouch Strategic Overview

Mask Pouch design is intended to:

- Offer a friendly user-interface
- Improve the sterilization process of face coverings
- Provide a cost-effective experience
- Facilitate mask cleaning tasks

Mask Pouch's point of differentiation:

The Mask Pouch is an authentic, “never-seen-before” product in the present market. Our design empowers public health, eco-friendliness, and efficiency at the same time. The main purpose of our idea is to help customers improve their experience with face coverings through a personalized mobile application and a rapid, portable mask pouch.

The ONE thing we want face mask users to understand/believe:

The Mask Pouch experience reduces the time spent on face-mask handling and care, enables people to establish new sterilization habits through reminders, and decreases the waste created by disposable masks, protecting the environment through a minimalist, fast, friendly, efficient, and reliant product design.

Section 2: Logo Usage



Official app icon on mobile devices. Also created to serve advertising content. The logo (excluding the background) will serve as the signature element of our brand on every mask pouch.

Section 3: Color Usage

PHYSICAL DEVICE

Our product will be available in a variety of colors to meet customer preferences.





MOBILE APP

Text and background colors:

HEX: #55ACEE

HEX: #292F33

HEX: #66757F

HEX: #CCD6DD

HEX: #E1E8ED

HEX: #FFFFFF

General borders:

HEX: #00A1F1

HEX: #0F7DC2

Action/buttons:

HEX: #ffeed

Other:

HEX: #006E51

https://www.w3schools.com/colors/colors_brands.asp

Section 4: Typography

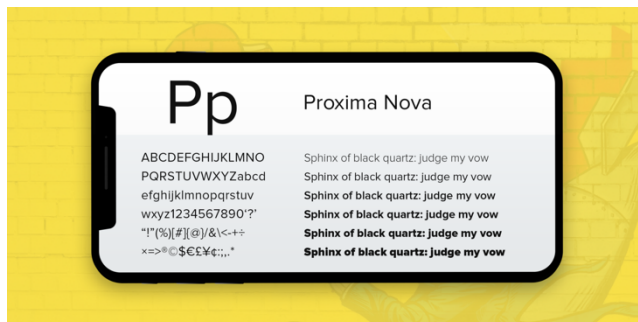
PHYSICAL DEVICE

Raleway (logo font)

MOBILE APP

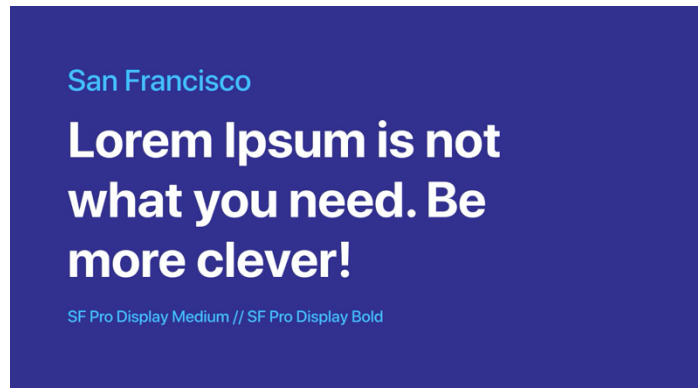
Text fonts:

Proxima Nova



Text size will vary according to style (e.g. headings, numbers)

San Francisco



These fonts reflect modern minimalism, boosting the mobile app simplicity and user-friendliness.

Section 5: Images

MOBILE APP

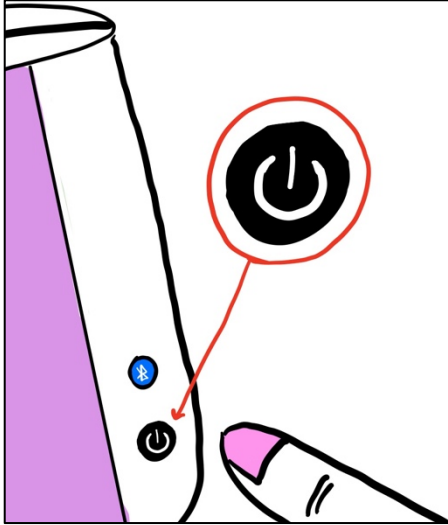
The images are intended to supplement our marketing strategy. Customers may relate interactions with face covering as energetic and vibrant as they secure the proper handling of the mask with us.



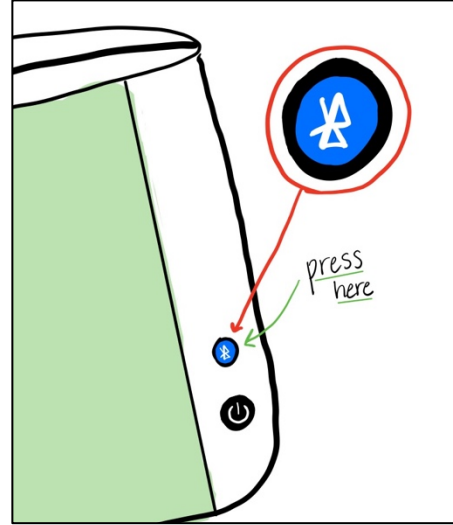
Section 6: Buttons

PHYSICAL DEVICE

On/Off button



Bluetooth button

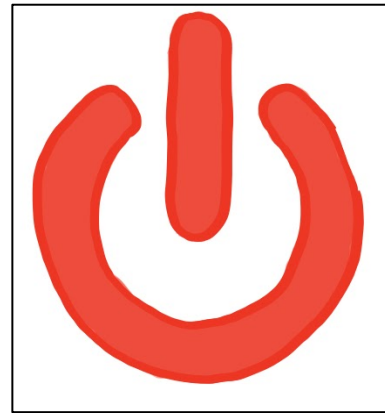


MOBILE APP

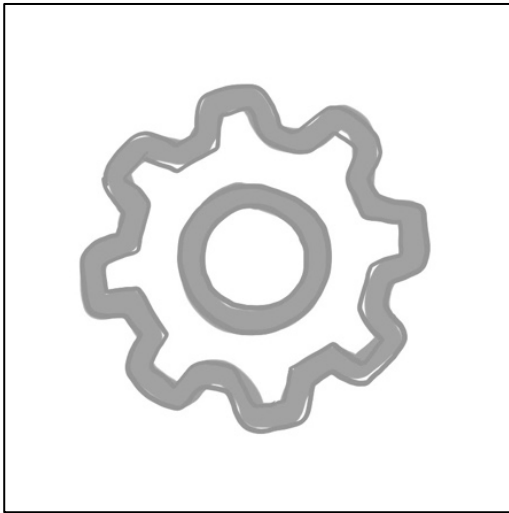
Start Cycle



Stop Cycle



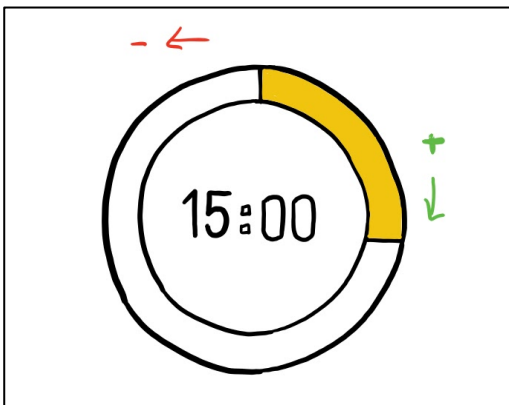
Settings



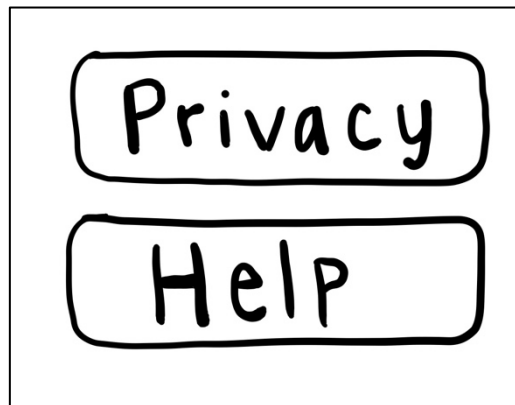
Edit Profile



Adjust cycle duration



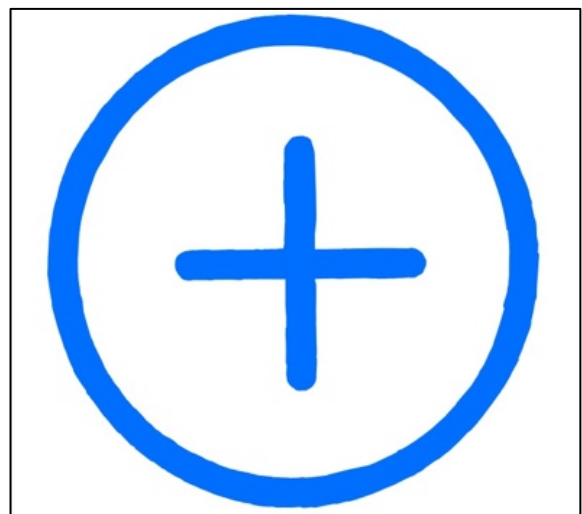
Privacy/Help



View Calendar



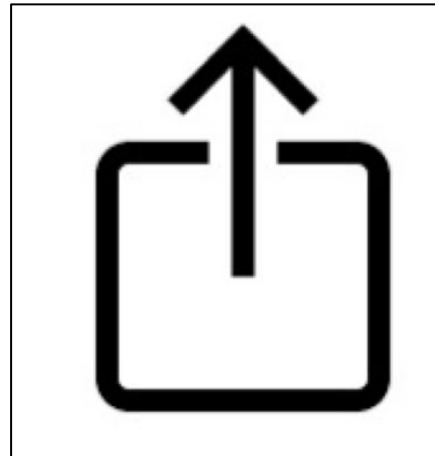
Add reminder



View Weekly Usage



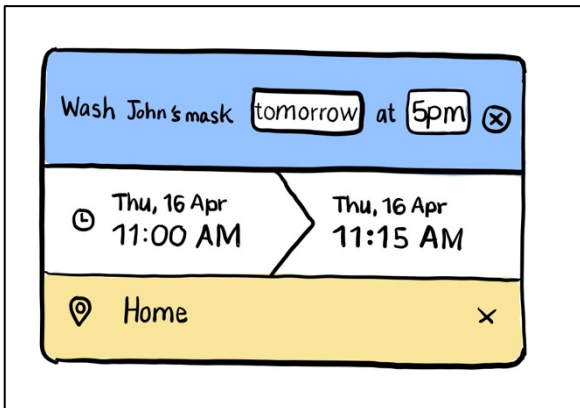
Share button



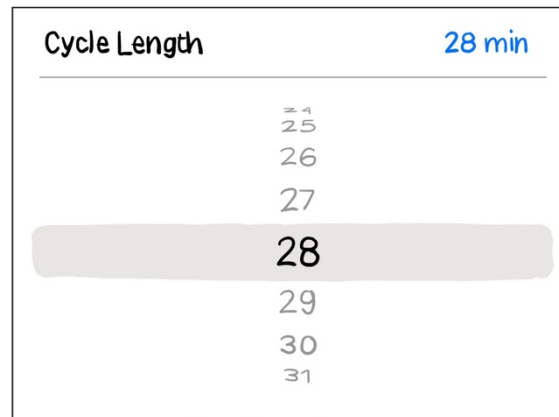
Section 7: Field

MOBILE APP

Set Personal Schedule



Cycle times



Experience Attributes

All of these components have to match these experience attributes



Resources

- [Bluetooth symbol]. (n.d.). Retrieved November 24, 2020, from <https://cdn.iconscout.com/icon/premium/png-256-thumb/bluetooth-184-756752.png>
- [Pencil Case]. (n.d.). Retrieved November 24, 2020, from <https://previews.123rf.com/images/chotwitnote/chotwitnote1711/chotwitnote171100442/91384998-vector-set-of-pencil-case.jpg>
- [USB Symbol]. (n.d.). Retrieved from https://www.wonkeedonkeetools.co.uk/media/wysiwyg/29CBC-Cordless-Power-Tool-Batteries-Becky/29CBC12/29CBC_12-14_OR_USB_symbol.jpg
- [Pointing finger]. (n.d.). Retrieved from <https://thumbs.dreamstime.com/b/apply-button-hand-pressing-vacancy-file-application-156255532.jpg>
- [Hand holding smartphone]. (n.d.). Retrieved from https://static.vecteezy.com/system/resources/previews/000/608/456/non_2x/vector-hand-holding-smartphone.jpg
- [Color swatches] Retrieved from <https://www.pantone.com/articles/fashion-color-trend-report/new-york-fashion-week-spring-summer-2020>
- [Clock]. (n.d.). Retrieved from <https://www.vectorstock.com/royalty-free-vector/time-icon-in-black-clock-symbol-with-arrow-vector-23405539>
- [Mask icon]. (n.d.). Retrieved from https://www.lufthansagroup.com/media/_processed_/b/7/csm_mund-nase-bedeckung_e068051ef9.png
- [Stats icon]. (n.d.). Retrieved from <https://image.flaticon.com/icons/png/512/87/87578.png>

Colophon

Alondra

- Managed the Design Language(s) section
- Drafted sketches for usages report and schedule storyboards
- Sourced assets and created references section.
- Collaborated via Slack and at meetings, generated ideas, and contributed to peer review.

Ben

- Managed the Project Summary and Expectations section and the Key Personas and Requirements section.
- Designed and created the Mask Pouch logo.
- Collaborated via Slack and at meetings, generated ideas, and contributed to peer review.

Besmelh

- Managed the Scenario Storyboard section
- Illustrated all sketches for storyboards.
- Collaborated via Slack and at meetings, generated ideas, and contributed to peer review.

Jodie

- Managed the Big Ideas and Major Anatomy section
- Independently researched hardware limitations, ranging from material selection to hardware tag styles.
- Collaborated via Slack and at meetings, generated ideas, and contributed to peer review.

Kevin

- Managed the How the Design Serves Persona Needs section
- Collaborated via Slack and at meetings, generated ideas, and contributed to peer review.