

UHUE

Your Personal Makeup Creator

 UNBOX

Agency: Unbox Product Design

Client: Kamio



The Problem

It is well-known that the traditional cosmetic industry is unable to service the diverse range of skin types in the world due to minimum manufacturing quantities. Ultimately, for one to have a perfect match users will need adaptive onsite customization.



80% of women polled say they face challenges finding a foundation that matches their skin tone.

- Glamour Magazine, Tomi Gbeleyi, founder of Makeup for Melanin Girls



77% of consumers chose or were willing to pay more for, a brand that offered a personalized customer experience.

- Siapartners, Thomas Graffagnino, Managing Director



Cosmetic brands have acknowledged the importance of **catering to diverse consumers.**

- Terakeet, RJ Licata, Sr. Director of Marketing



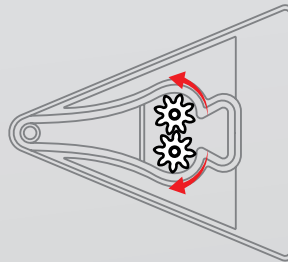
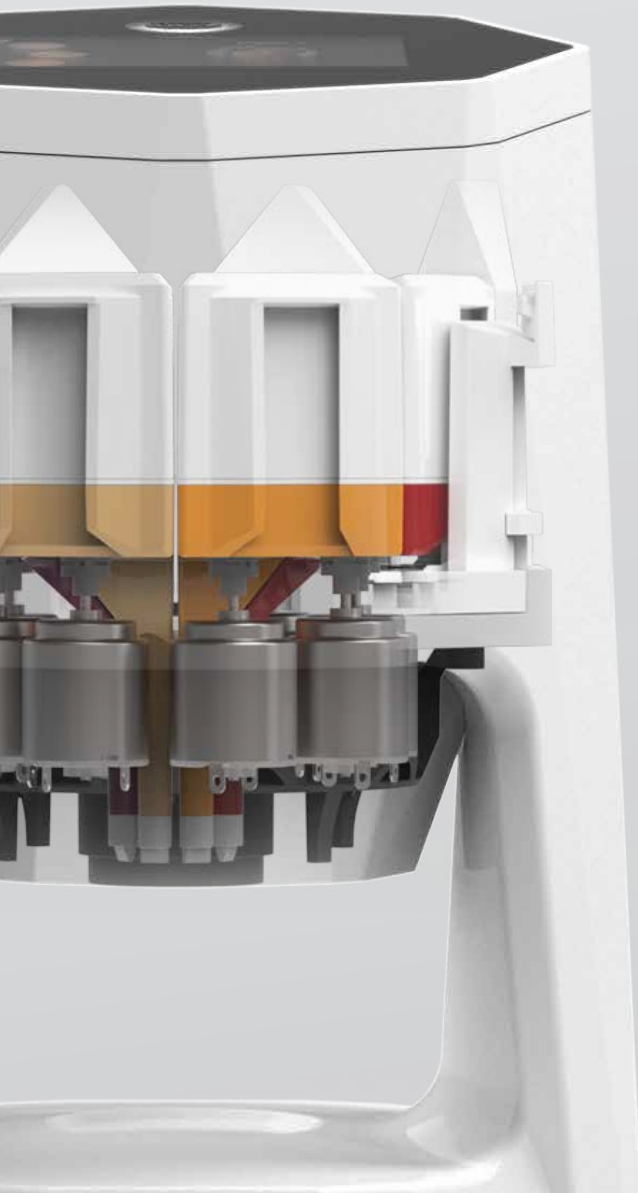
Concept Development

The design of the enclosure had to make many considerations including the location of the interface, cartridge access and removal, center of gravity, visibility of dispensing, and an appearance that would fit well with the home environment decor.

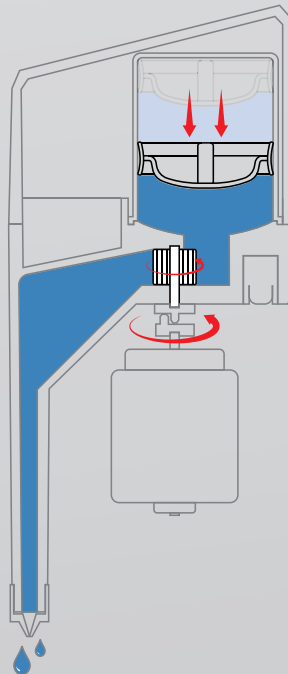


How it Works

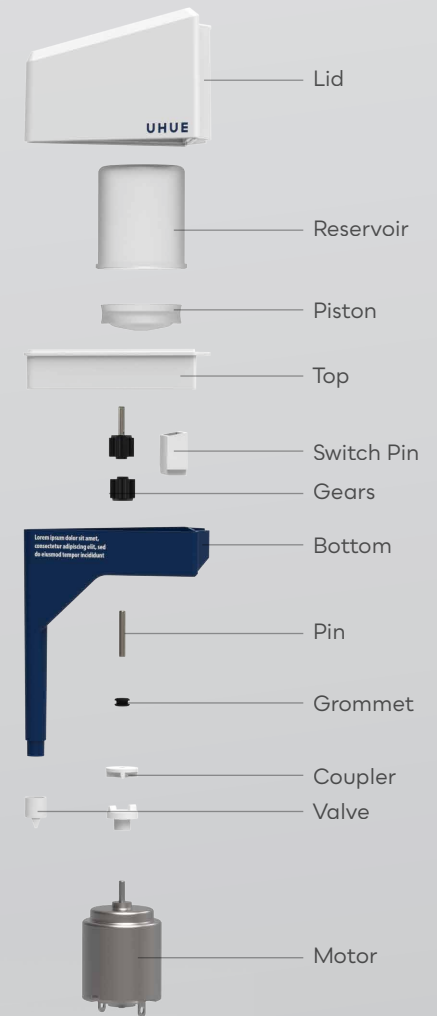
Made from biodegradable PLA, The replaceable cartridge includes an individual internal pumping mechanism. This cost-effective solution can meter microdoses of viscous fluids, avoid cross-contamination, monitor volume levels, and identify cartridge type.



The positive displacement gear pump pulls fluids in while pushing fluids out.

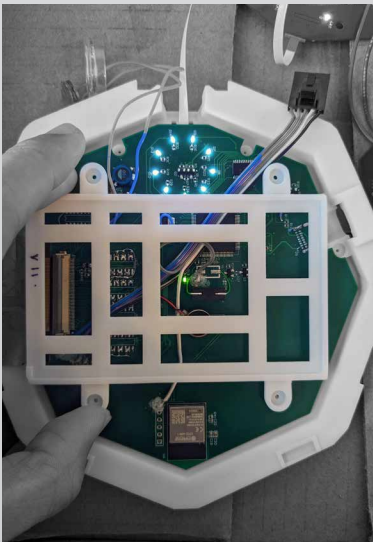


Driven by a DC motor the gears pull fluids from the reservoir followed by a piston to create an airless system.



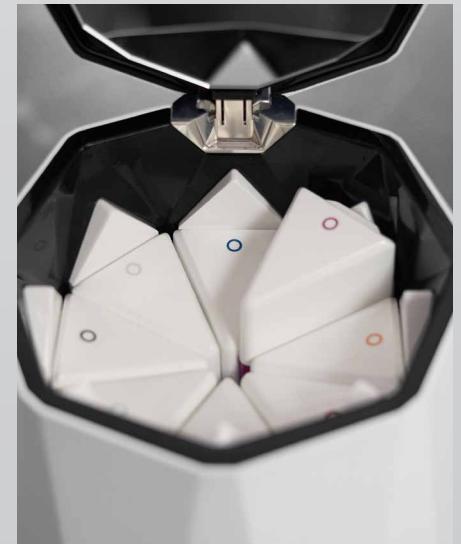
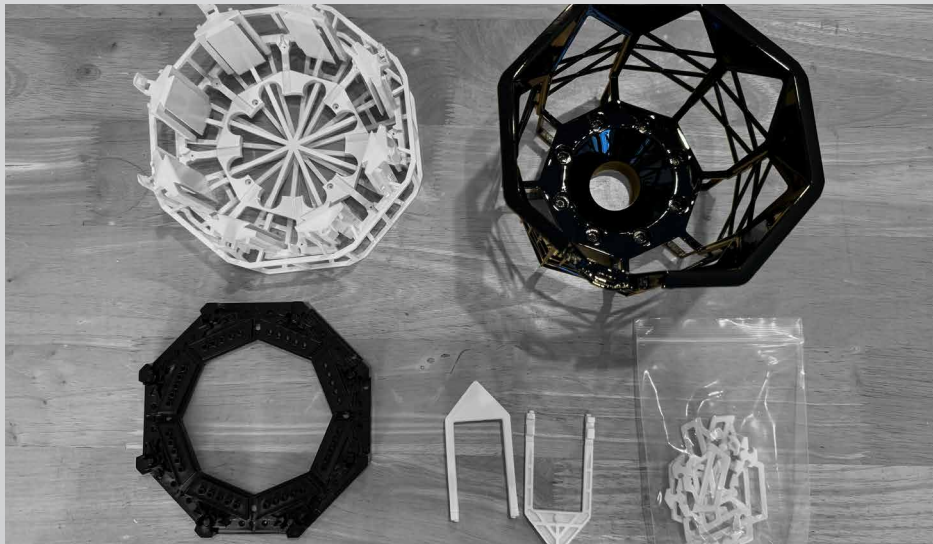
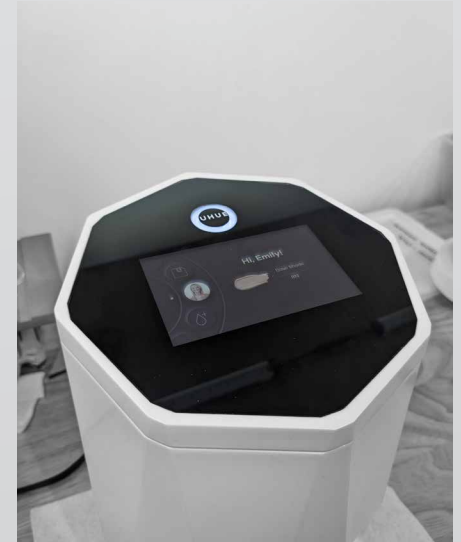
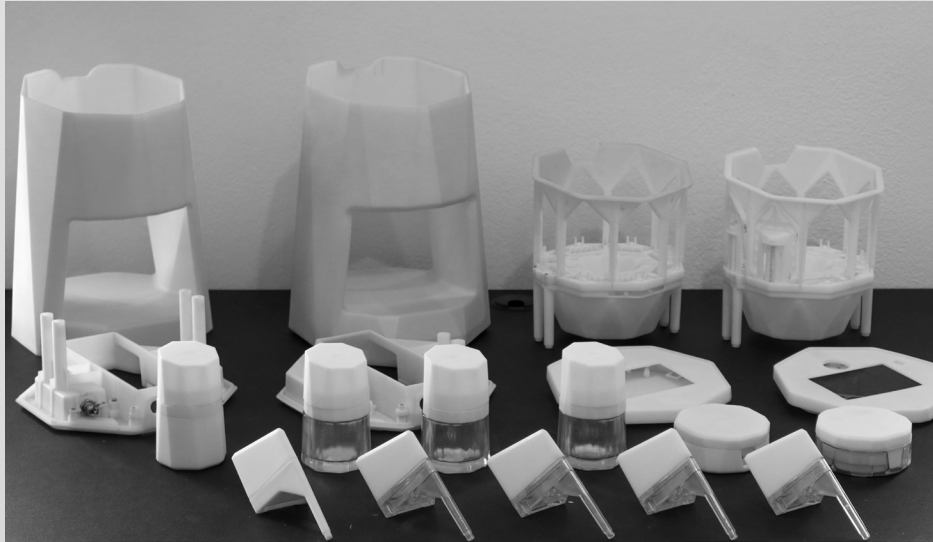
System Development

The development of the Uhue system required rigorous testing and refinement on many fronts including ingredient selection, formula creation, custom electronics, and embedded systems.



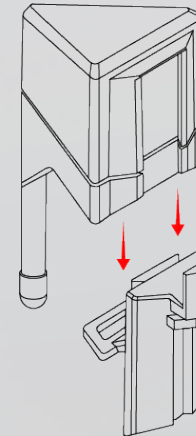
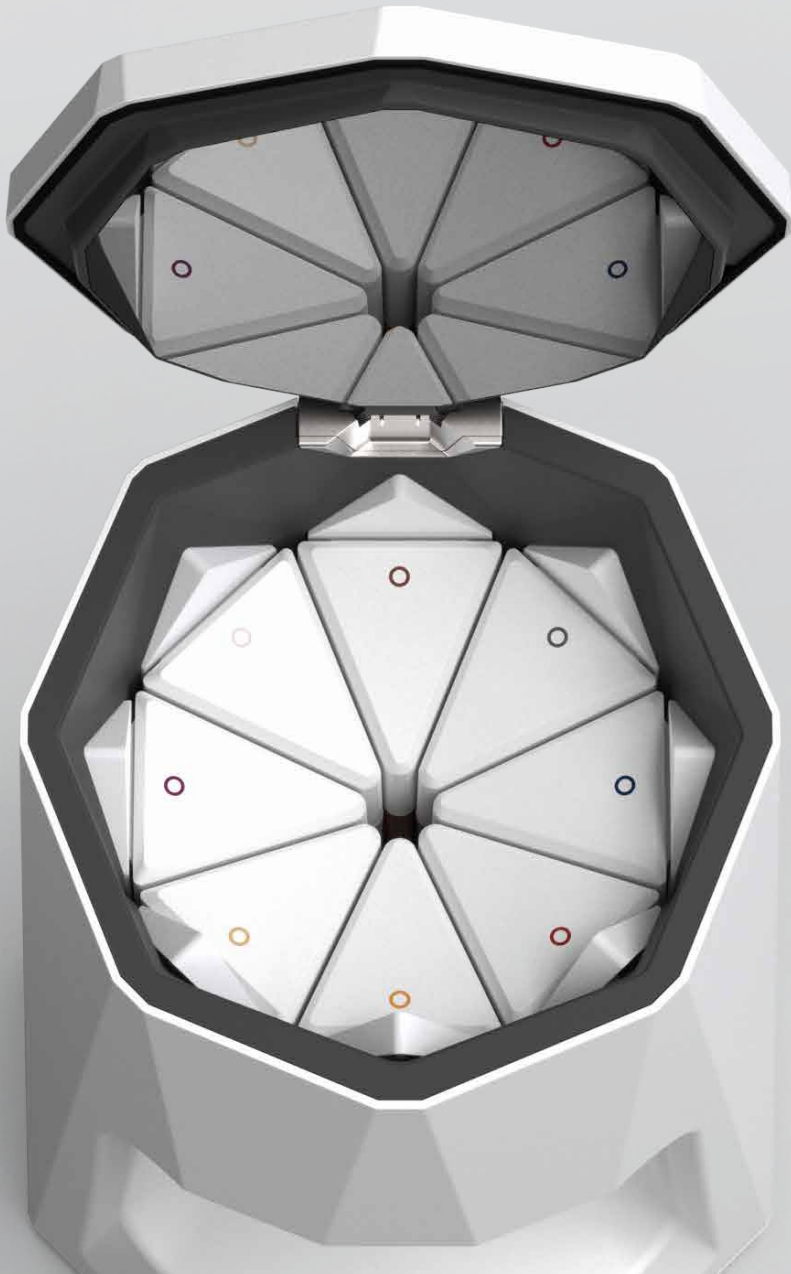
Product Development

The hardware for Uhue included the development of the proprietary cartridge pumps, airless container ecosystem, spring-assisted top cap opening, lighting, noise dampening, and design for manufacturing.

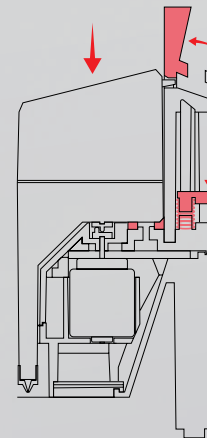


Design Solutions

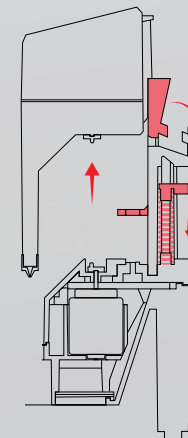
To provide a secure connection for cartridges a novel mechanism was developed. When cartridges are installed an auto locking lever is engaged. When the lever is then pressed the cartridge is released to pop up for removal.



When the cartridge is inserted the lift arm spring is compressed.



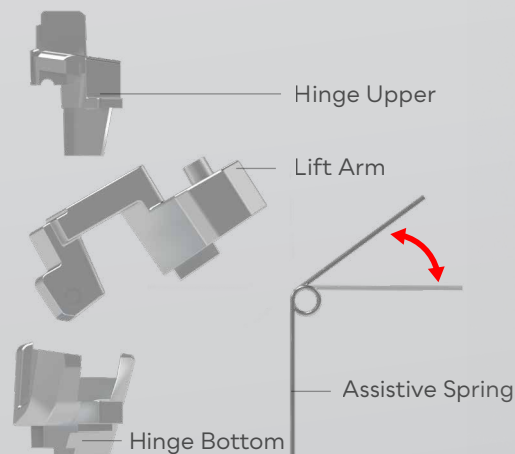
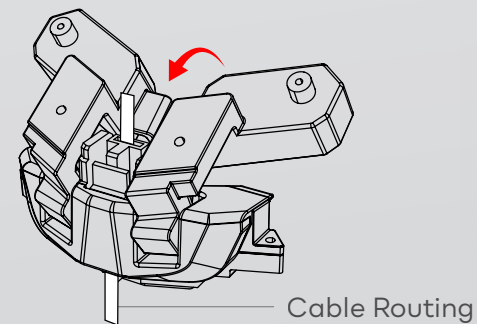
The auto-locking lever secures the cartridge.



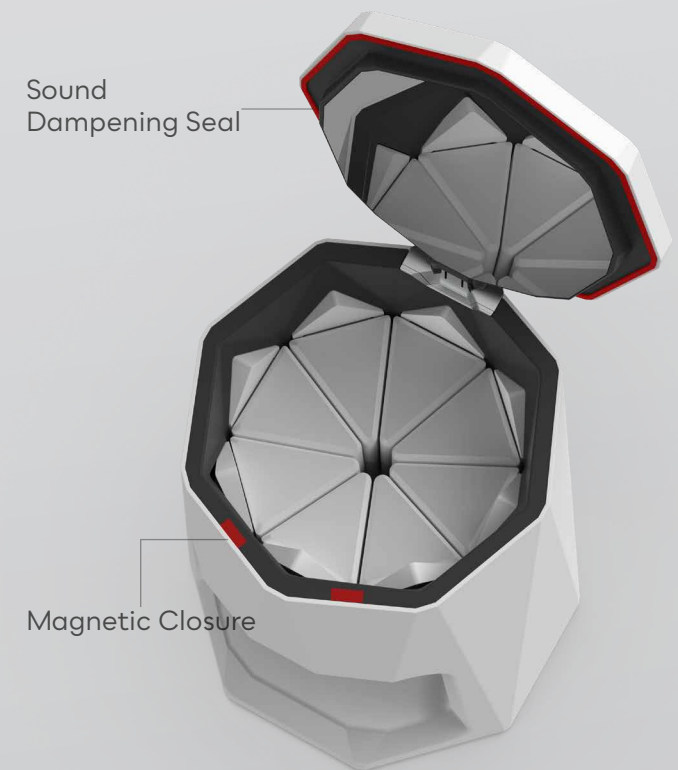
Pressing the auto lock lever ejects the cartridge.

Design Solutions

The design of the polished aluminum hinge aimed to follow the form closely by keeping the outer surfaces as flush as possible while avoiding impeding the cartridge in the interior. Additionally, stability had to be addressed in being positioned at the back corner, a flex cable to route through to a lower PCB, and assistive springs to prevent abrupt closing.



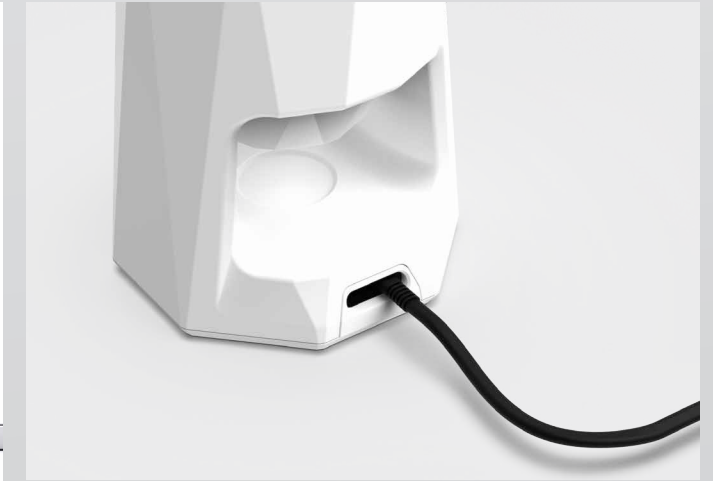
Two assistive springs and a flex cable route were fit internally. At 100 degrees opening angle users can utilize the interior vanity mirror.



Magnets at the front of the device assist in closing along with a sound-dampening gasket around the perimeter.

Design Details

The design was intended to relate to objects of beauty, differ from common appliances, and evoke a sense of the future. Tasteful accents such as the polished aluminum hinge become symbols of luxury. While subtle details like an illuminated container bay and tinted tempered glass awaken and put to sleep the device. Even the power adapter was concealed underneath providing a lower center of gravity.



Design Details

Thoughtful considerations were made to very detail. The vanity mirror on the inside was angled to perfect for a sitting position. The dispensing bay recess fits both containers directly under the nozzles. Even the power cable exit hole can allow for different orientations.



User Operation

Install Cartridges



With cartridges installed and a profile created the user is ready to begin.

Customize Your Own Makeup



Through the touch display or mobile app, they will select the cosmetic product, their chosen color, and finishing touches.

Dispense Product



Formulas are then saved, containers placed, and products dispensed in seconds.

Mix



With a quick stir, they are ready to wear. Later users can recall saved formulas, edit, or share with their community.

Cartridge System

Designed to use eight cartridges users can customize their entire routine including foundations, concealers, bronzers, lip color, and eyeshadow. With all fourteen cartridges any color, coverage, finish, and shimmer can be created opening endless possibilities.

Color and base cartridges are used to create a range of different products.

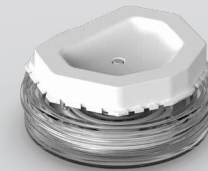


Effects cartridges add coverage, finish, and shimmer

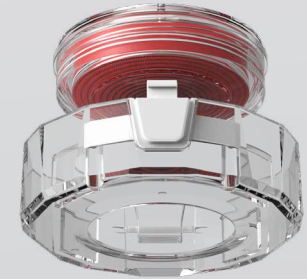


Airless System

The Uhue airless system wouldn't be complete without storage containers. Both containers were designed to be reusable with replaceable formula pods, pistons, and applicator brushes.



Replaceable Airless Pods



Reusable Compact Housing



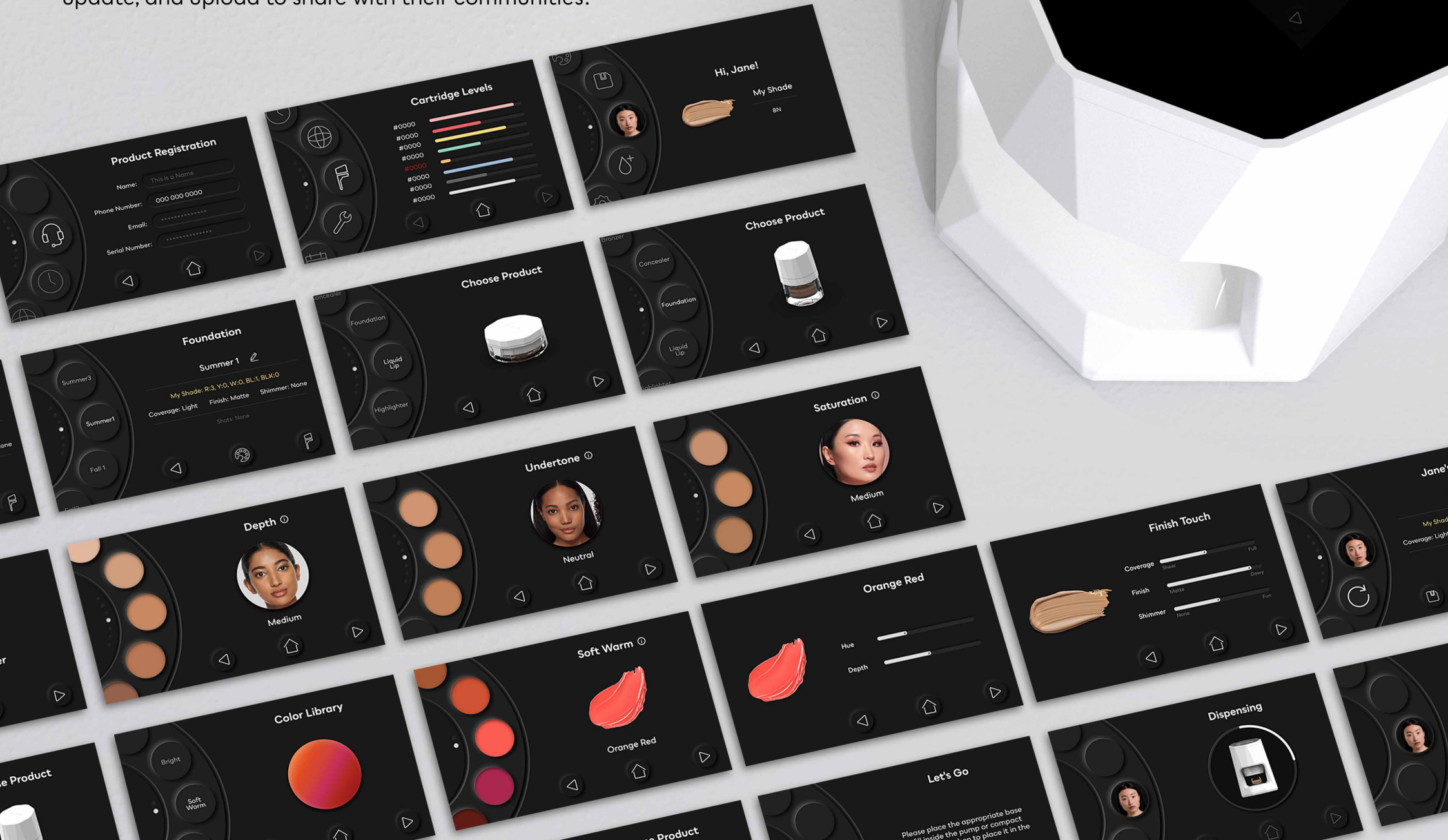
Replaceable Airless Pods



Reusable Glass Container

Embedded System

Providing an uninterrupted connection by either the touch display or mobile app. It allows users to fully customize any formula, save, recall, update, and upload to share with their communities.



App & Web Design

Our accompanied mobile app and website offer even more connectivity. Here users can shop, create formulas, download trending colors and libraries, find help and tutorials, and connect to their favorite social media to share results and experiences.



Thank You

