

Long Lifecycle

BUBBLE

Household shower

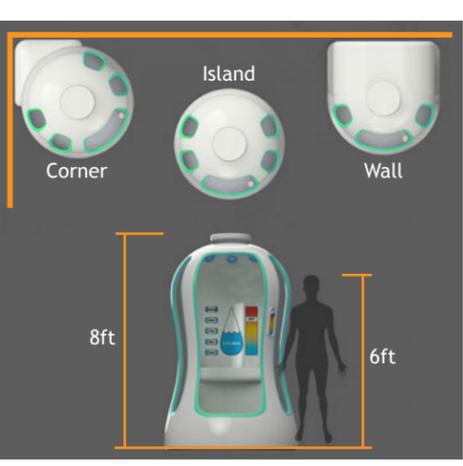
Showers are important components for personal hygiene. Although they were developed as a water-saving alternative to traditional baths, their relaxing nature results in people taking long showers. The Bubble Shower concept explores ways for the shower to reduce water consumption without compromising its performance. More importantly, it offers features help users to be aware of how much water they use when showering, generating a sustainable behavior that will carry on to other activities.



- ### Design Goals
- Present showers as relaxing ritual
 - Promote user behavior towards shorter showers
 - Communicate water consumption during use
 - Include water-saving settings
 - Ability to install in different bathroom layouts

- ### Fusion 360 Features
- Modeled in "Sculpt" mode
 - Revolve > overall form
 - Edit Form > refinement
 - Thicken > creating walls
 - Bridge > window openings
 - A360 > cloud rendering

- ### Sustainability Strategies
- Water and energy efficiency
 - Persuasive Design encourages shorter showers
 - Water recycling during heating cycle
 - Whole Systems Thinking for improved performance

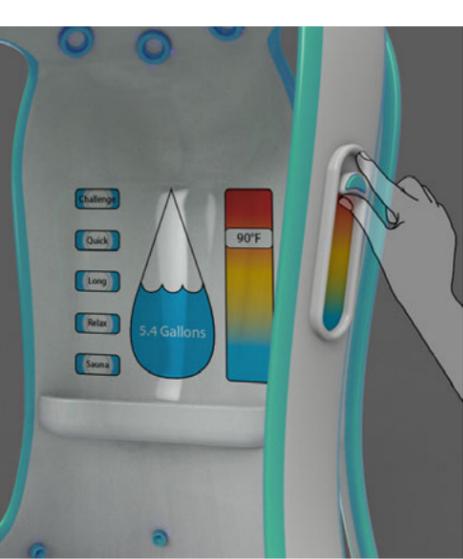


Versatile layout

Bubble shower is designed in modules that allow it to be setup in three configurations: corner, against a flat wall or free standing. These options provide users with more flexibility to fit the shower in existing bathrooms without having to develop three completely different designs. The main section of the shower remains the same while extensions are added to the back depending on the specific layout.

Relaxing interior

An important element in shower design is to provide a relaxing experience that goes beyond personal hygiene. The shower uses different color lights, water patterns, misters, and music to create a relaxing environment. Low-flow laminar jets keep the amount of water used to a minimum while visual and audible signals let users know when if are consuming too much water so that they can improve their water consumption habits.



Digital interface

The control panel displays the duration of the shower and how much water has been used, making users aware of their showering patterns. The interface also includes several customized settings. The "Quick" setting lets the shower run at full flow for 8 minutes (the average length for a shower) before reducing it by 20%. At this point the user can bring the flow back to full for 2 minutes at a time. The "Challenge" setting runs the water up to a certain number of gallons (i.e. 10 gallons, which is less than a standard shower) and then shut off the water. If users complete their shower before the water cuts off, they will the challenge for that day.

Water heating

Most of the water wasted during a typical shower comes from letting it run while the hot water travels from the heater to the shower head. Bubble shower can be fit with an instant water heater, eliminating the need for a water heater tank. Alternatively, if connected to a tank water heater, the shower contains a recycling reservoir that collects the cold water that comes out while the hot water reaches the shower. Once this happens, the cold water is poured back slowly to the flow so that it can be used without altering the temperature set by the user.

