



Bioluminescent Shower Curtain

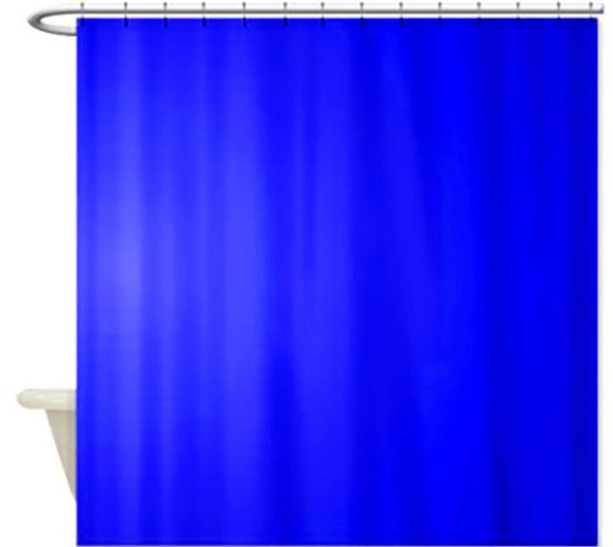
Kip Holcomb & Anh Kiet Ngo

Introducing the Bioluminescent Shower Curtain

- Embedded with a layer of bioluminescent algae and an advanced network of circuitry, this curtain can serve as a light source in the bathroom, and reduce or eliminate the need for electricity in the bathroom.
- Affordable at \$20.00
- Algae = renewable resource.
- It also comes with an app, which lets users link their smartphones with the curtain to monitor the status of the algae, and more.

Function and Form (Curtain)

- The function of the curtain is simple and straightforward: provide lighting in the bathroom while reducing the need for electricity. This is accomplished through bioluminescent algae.
- The algae is embedded within the curtain. The curtain itself will be made from plastic, giving it some flexibility and allowing users to take it anywhere.
- The curtain will also come in different sizes and patterns.



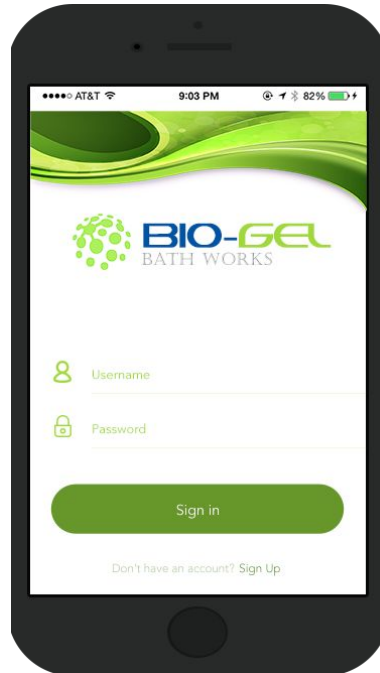
Function and Form (App)

The app consist of four screens, each with a different function:



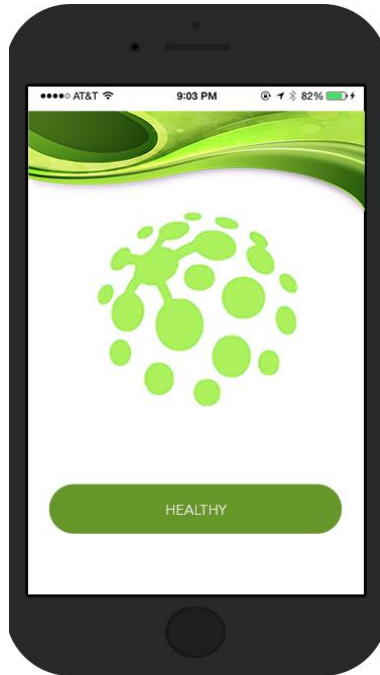
Login

Allows users to log into their online account.



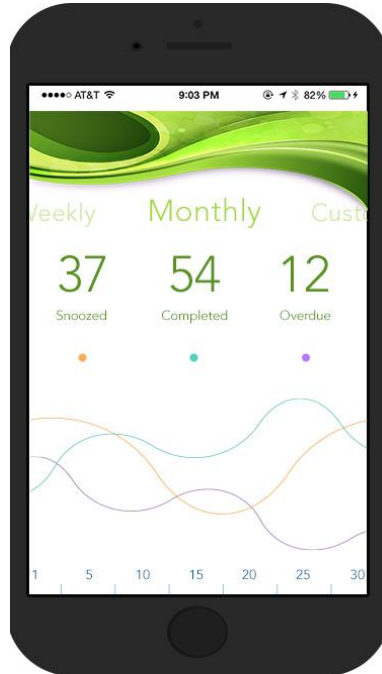
Health

Allows users to monitor the health of their algae.



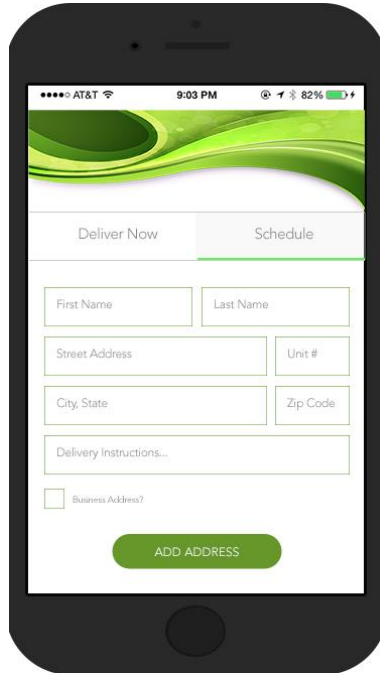
Statistics

Allows users to view how much energy their algae generate.



Purchase/Reorder

Allows users to order a new curtain.



The image shows a smartphone screen displaying a delivery address form. At the top, the status bar shows AT&T, 9:03 PM, and 82% battery. Below the status bar is a green decorative header with a white wave pattern. The form has two tabs: "Deliver Now" and "Schedule", with "Schedule" selected. The form fields are: "First Name" and "Last Name" (side-by-side), "Street Address" and "Unit #" (side-by-side), "City, State" and "Zip Code" (side-by-side), and "Delivery Instructions...". At the bottom, there is a checkbox for "Business Address?" and a green "ADD ADDRESS" button.

AT&T 9:03 PM 82%

Deliver Now Schedule

First Name Last Name

Street Address Unit #

City, State Zip Code

Delivery Instructions...

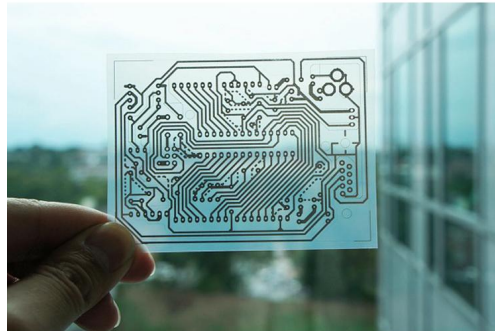
Business Address?

ADD ADDRESS

Tech Infrastructure

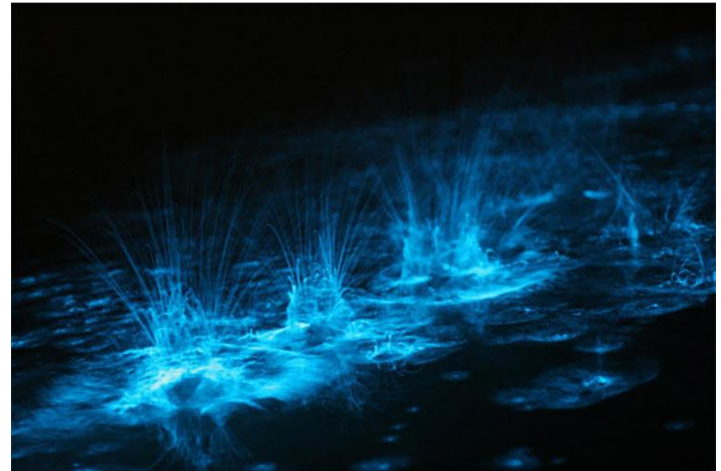
Consists of several materials interacting with one another.

- The plastic curtain is the outermost layer.
- Bioluminescent algae are embedded in the curtain.
- Within the curtain is a network of circuitry and sensors.
- An embroidered antenna.



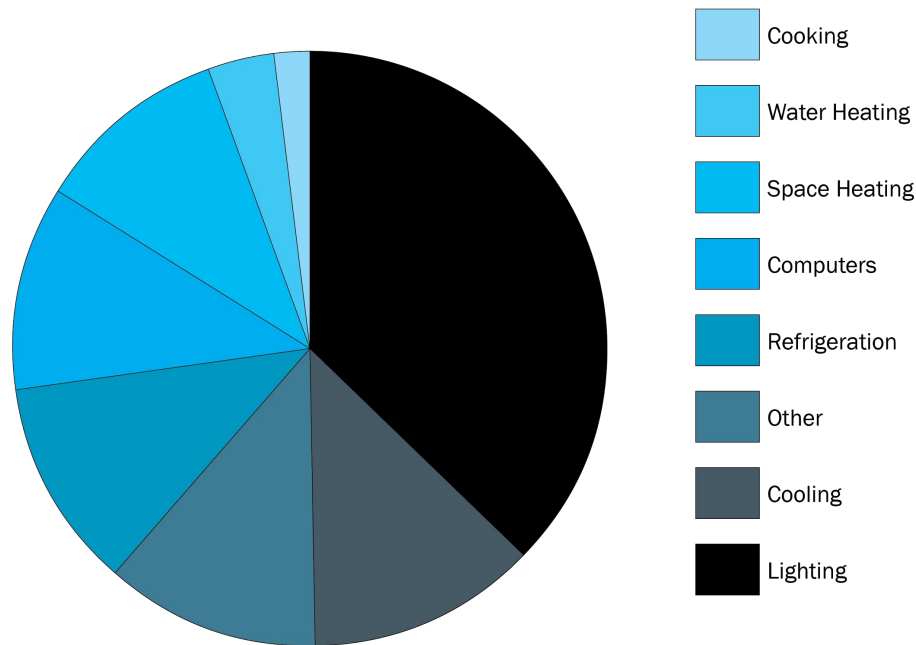
Tech Infrastructure (cont.)

- Sensors interact with the algae and monitor their health.
- The data generated by the sensors will be sent to a smartphone through a tiny yet efficient spiral-shaped antenna, using Bluetooth technology.
- The circuitry is powered by bioelectricity generated by the algae.

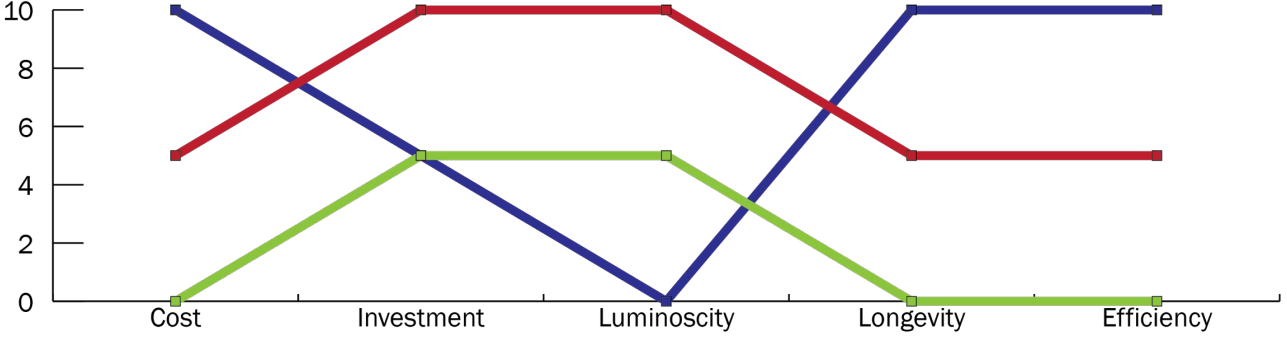


Trends Analysis

- Global warming is a thing.
- Resources, such as fossil fuels, are becoming more scarce every day.
- Lighting consumes a lot of electricity. Electric lamps are also not as efficient as bioluminescent light.



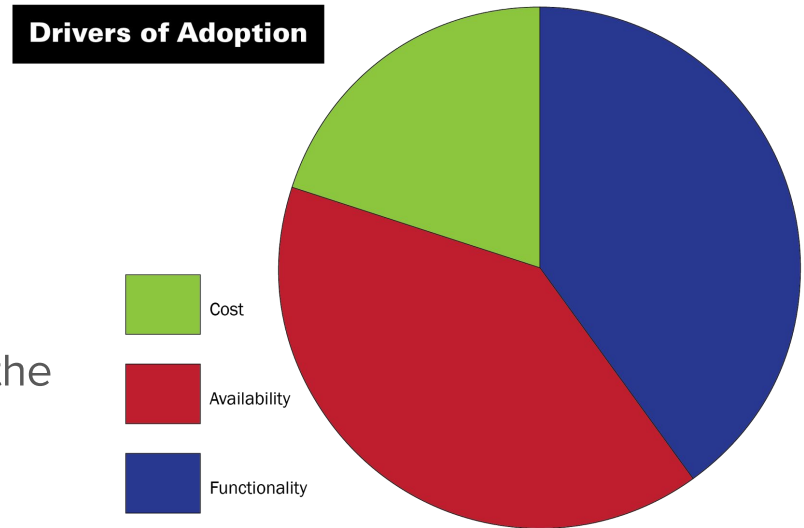
Trends Analysis



- Incandescent Bulb
- LED
- Bioluminescence

Trends Analysis (cont.)

- Currently, there is research dedicated to developing bioluminescent light as an alternative to electric or heat-powered lighting.
- Bioluminescent algae and bacteria are renewable resources, and if developed properly, they could replace fossil fuels in the future.
- Bioluminescence will not cause as much environmental damage, and also have other applications besides lighting.



Context of Use

- Users are expected to use this as a light source in their bathroom, so that they don't have to turn on the light.
- However, we also expect it to be used for other purposes, such as providing accent lighting or a makeshift light source should a blackout occurs.
- The users will also interact with the app on a fairly regular basis, as they need to check on their algae and keep the algae healthy.

Questions?

