



LUNA | a smart nightlight

OVERVIEW

PROJECT OVERVIEW

Problem

- According to Ohio State University a study showed that most nightlights used white, blue or green tones that “inhibit the body’s secretion of melatonin by tricking the brain into believing it is still daylight.
- It isn’t just lighting in the child’s bedroom that makes a difference though. The light emitted from screens, including televisions, laptops, tablets and smart phones can also cause problems.”
- With technology becoming an everyday activity, more children are using screens for longer periods of time than any generation ever due to the portable device options available such as the tablet or smartphone.
- Children’s sleep is affected by this new pattern and sleep disorders are on the rise in children by 32%. It is vital for children to develop a healthy sleep pattern while their brains are still developing.

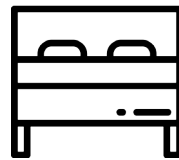
SOLUTION



A smart nightlight that supports regulating a healthy sleep cycle for children.



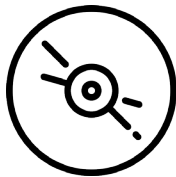
Would cut down electricity costs of running a typical nightlight overnight.



Allow the parent to turn off the light from their own bed.



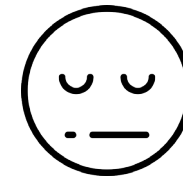
Allows child to turn off light without getting out of their bed.



Sensor and camera to know when the child has fallen asleep.

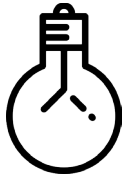


Allow for the child not to be reawakened by the light.



Improves the sleep of both parent and child

SLEEP FACTS



The optimal condition for sleep is total darkness, as any amount of light over a dim setting on a standard 60-100 watt bulb can affect the sleep cycle.

Most nightlights use white, blue or green hues which can “inhibit the body’s secretion of melatonin by tricking the brain into believing it is still daylight.



The light emitted from screens, including televisions, laptops, tablets and smart phones can also cause problems.

The blue light emitted by screens on cell phones, computers, tablets, and televisions restrain the production of melatonin, the hormone that controls your sleep/wake cycle or circadian rhythm.

In an article by Psychology Today, research done by the Canadian Pediatric Society states “that “behavioral insomnia” is a medical diagnosis used to describe 20-30 percent of kids who have trouble falling or staying asleep, and who end up in their parents’ bed at one point during the night. The impact of chronic co-sleeping on a person’s functioning—younger and older—can run the gamut from memory loss, fatigue, low energy, depression, and obesity.”

<http://healthysleep.med.harvard.edu/healthy/science/variations/changes-in-sleep-with-age>

<https://www.sciencedaily.com/releases/2000/03/000309074442.htm>

<https://www.ncbi.nlm.nih.gov/pubmed/12970330>

<https://sleep.org/articles/ways-technology-affects-sleep/>

DEMOGRAPHIC



Preschoolers (3-5 yrs.)

55% of Kids have difficulty sleeping when starting a new schedule for school

With developing imagination preschoolers experience night time fears and nightmares

Average sleep **11-13 hours**
Sleep Difficulty **Difficulty falling asleep and waking up**
Peak time for **Sleep terrors and sleepwalking**

With further development of imagination, preschoolers commonly experience nighttime fears and nightmares. In addition, sleepwalking and sleep terrors peak during preschool years



School Age (6-12 yrs.)

48% of Kids get their essential rest at this age

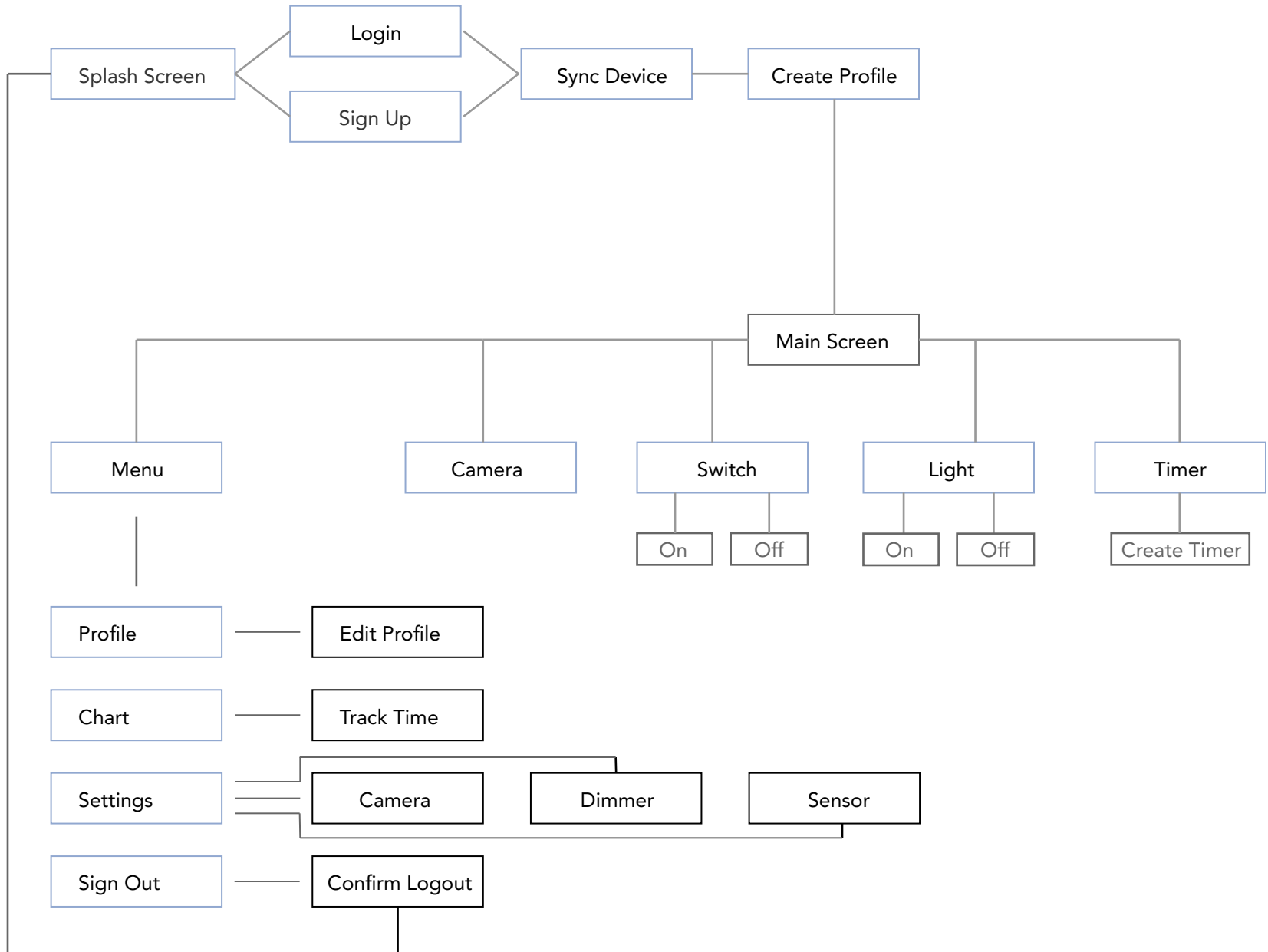
Poor or inadequate sleep can lead to mood swings, behavioral and cognitive problems that impact on their ability to learn in school

Average sleep **9-11 hours**
Sleep Difficulty **Bedtime resistance**
Peak time for **Sleep disorders to appear**

Increasing demand with a school schedule, sports, and other extracurricular and social activities. The transition from kid to pre-teen is challenging cognitively and physically leading to anxiety and mood swings

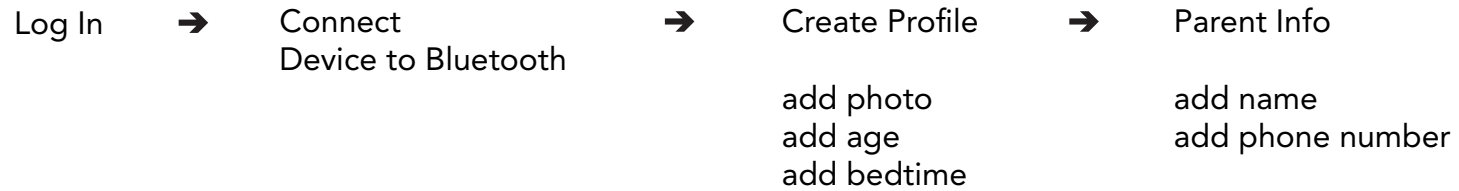
PROCESS

UX JOURNEY MAP



USE CASES

→ Action: Initial Setup



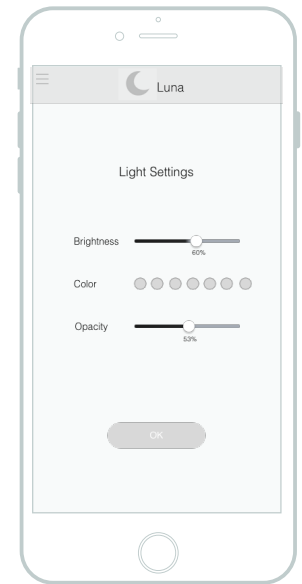
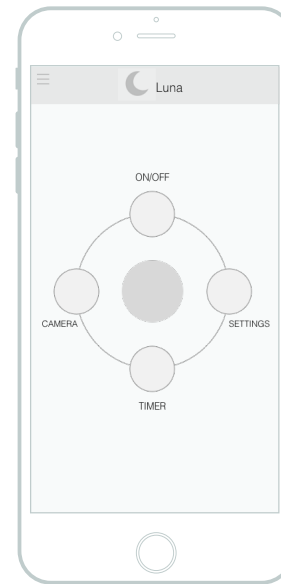
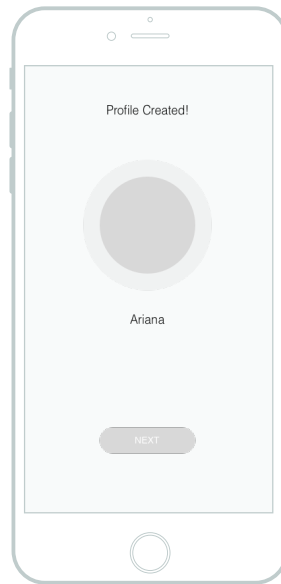
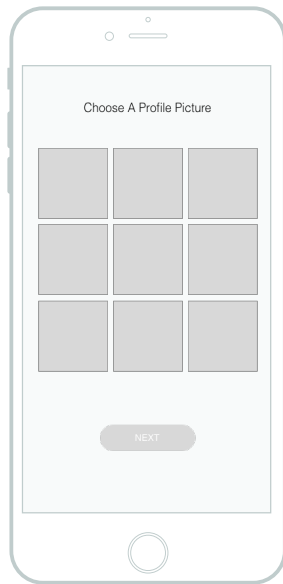
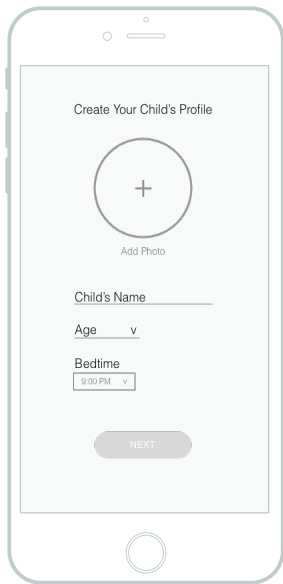
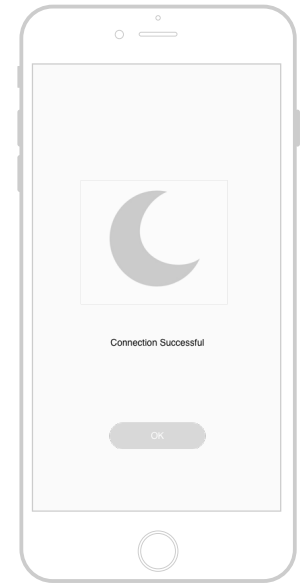
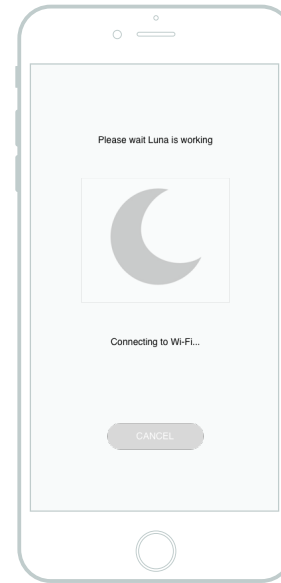
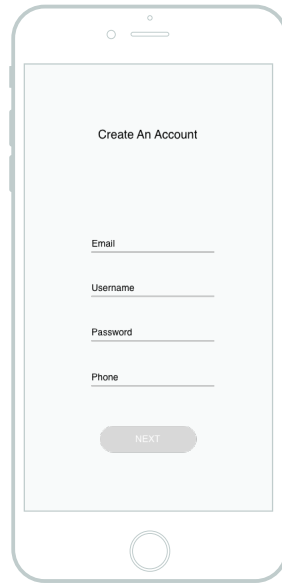
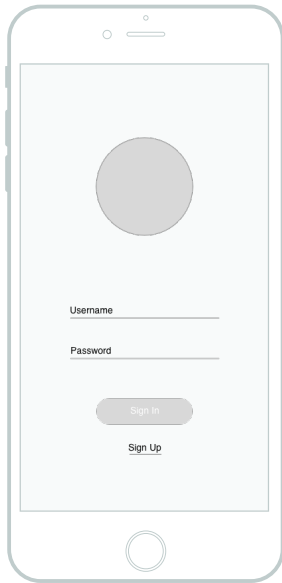
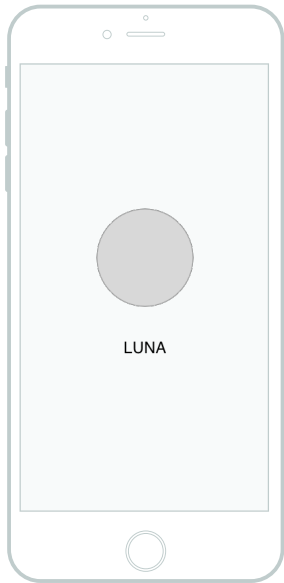
→ Action: Checking On Child



→ Action: Checking Sleep Patterns

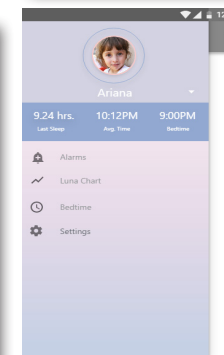
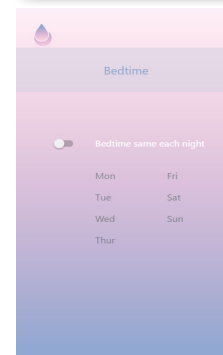
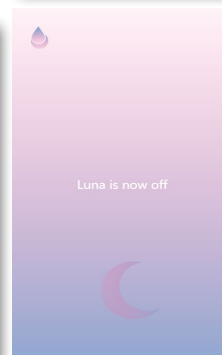
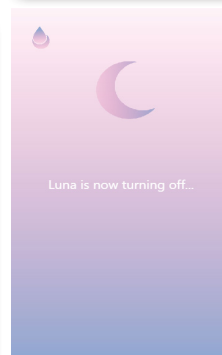
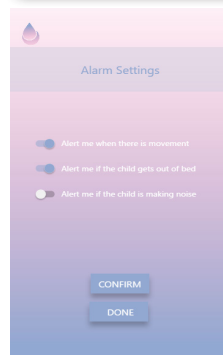
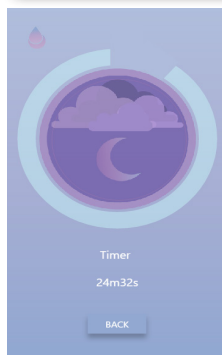
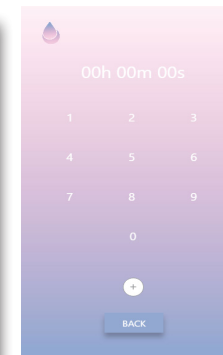
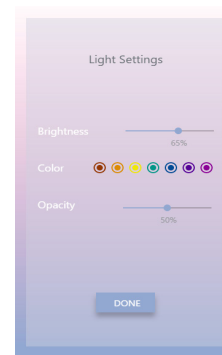
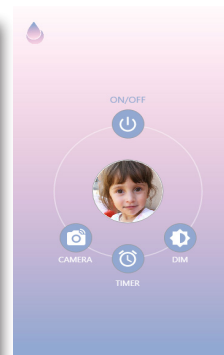
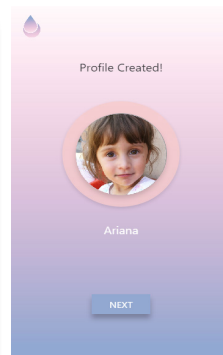
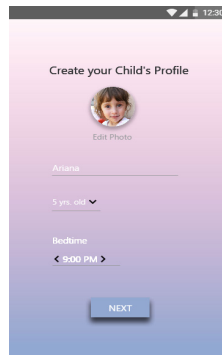
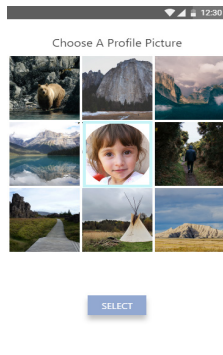
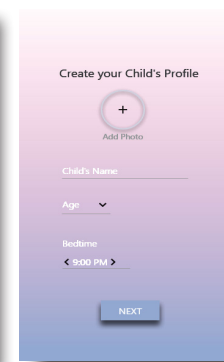
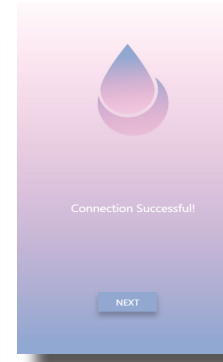
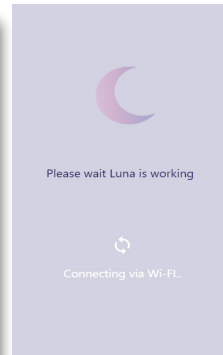
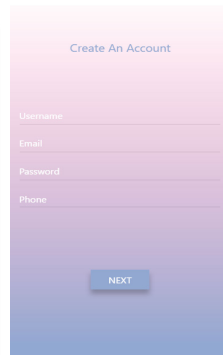
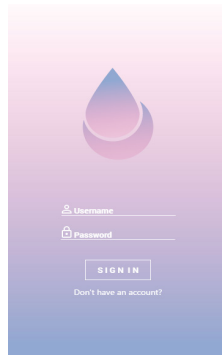


WIREFRAMES



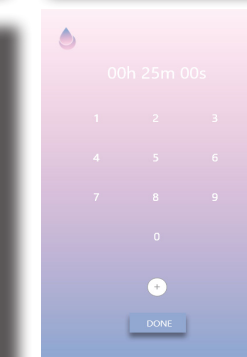
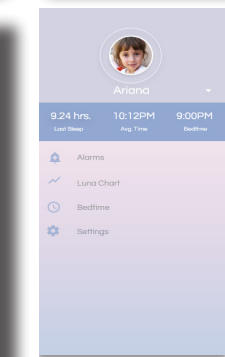
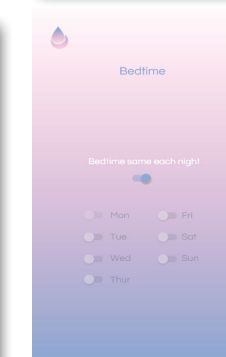
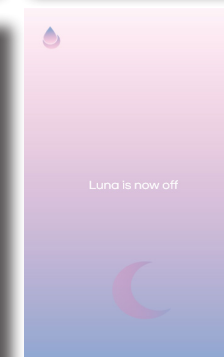
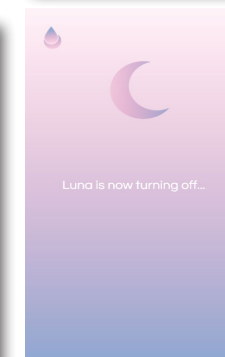
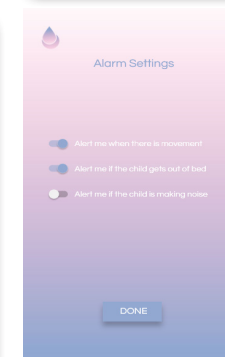
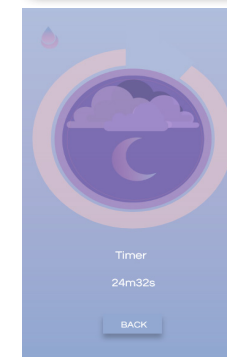
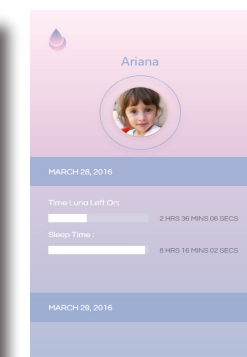
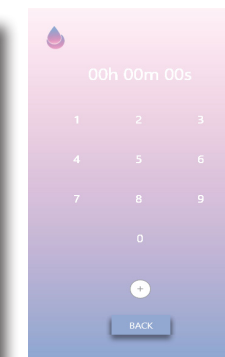
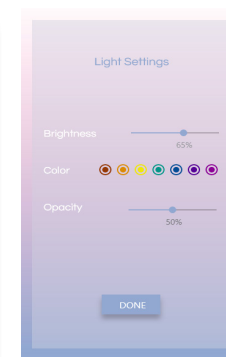
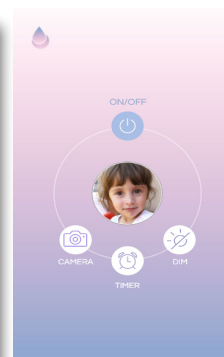
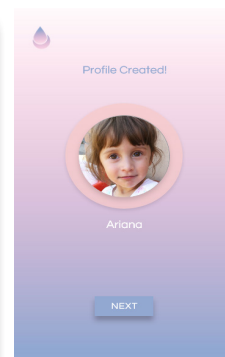
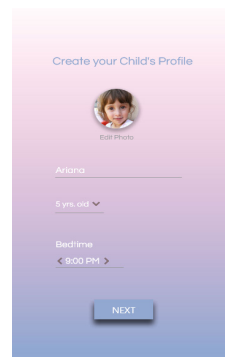
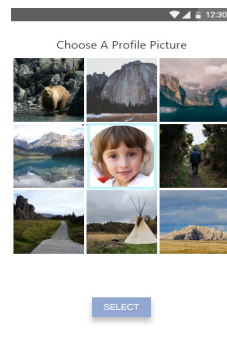
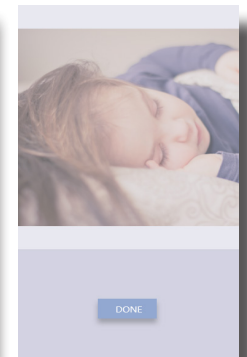
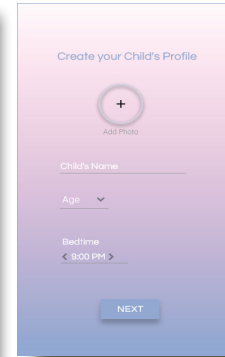
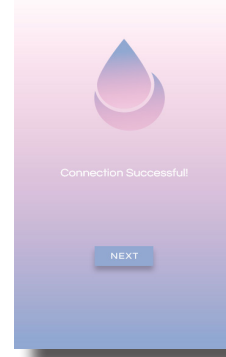
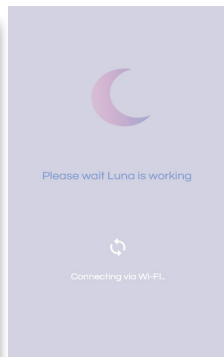
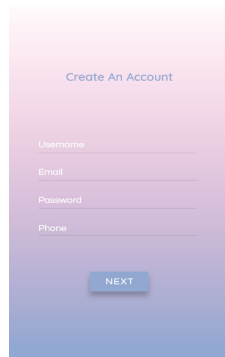
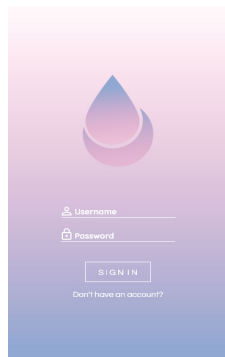
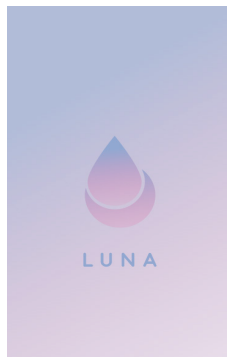
SCREENS

VERSION 1



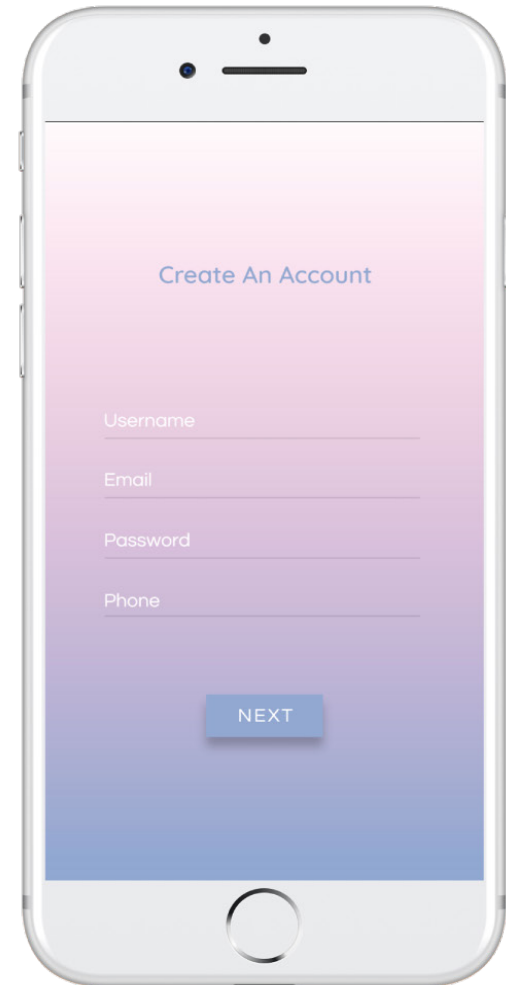
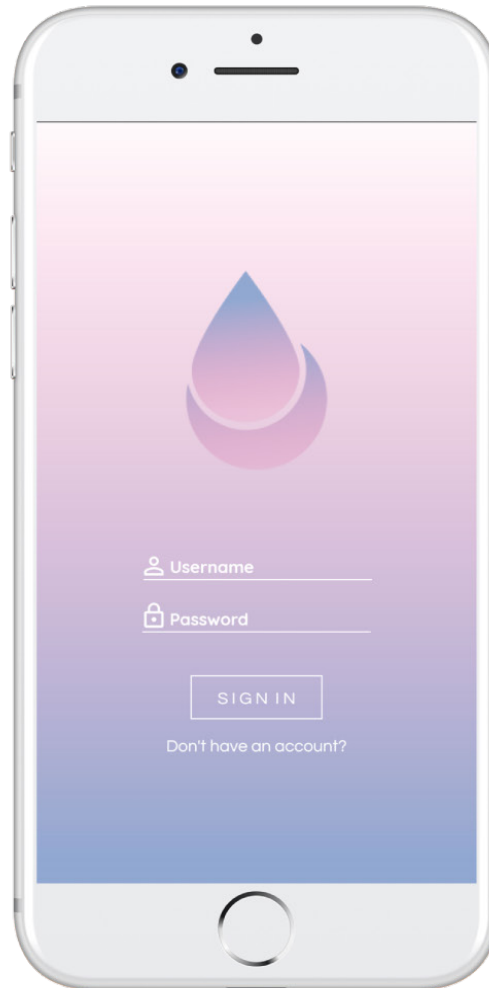
SCREENS

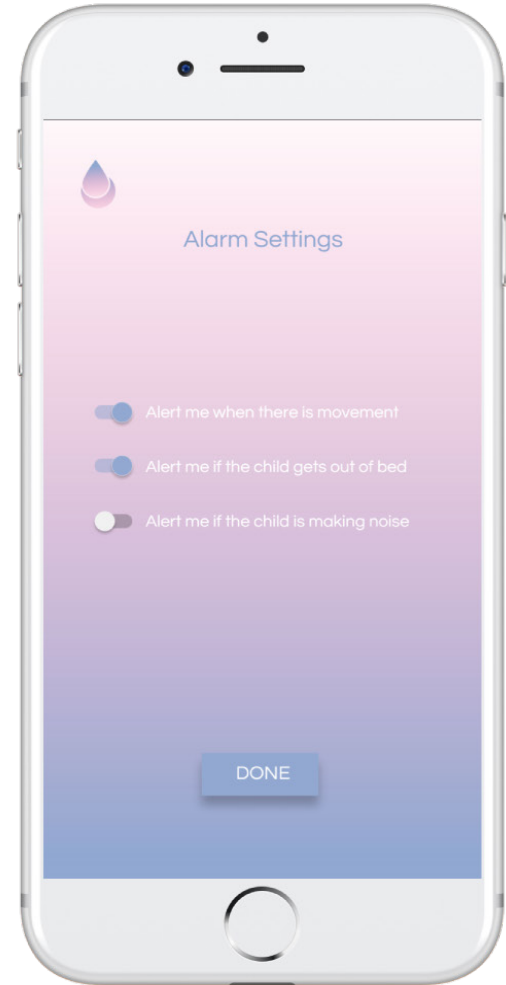
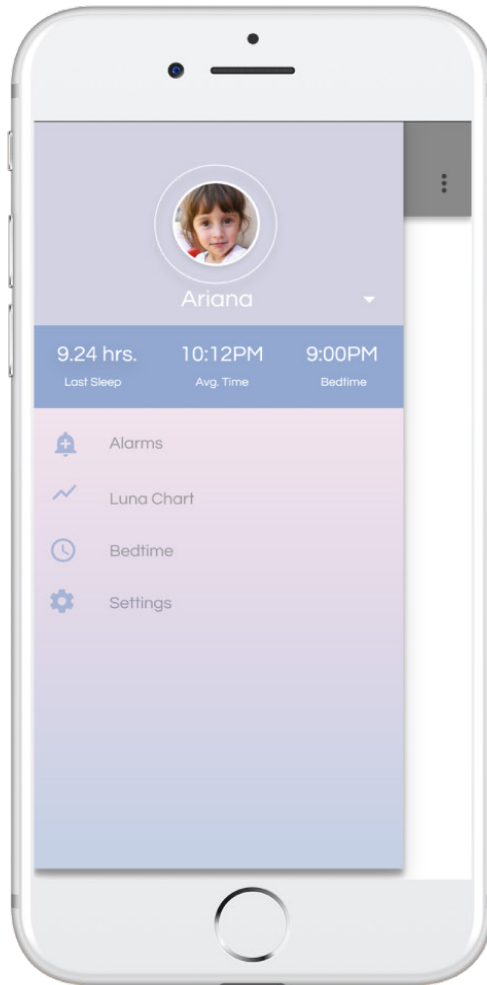
VERSION 2

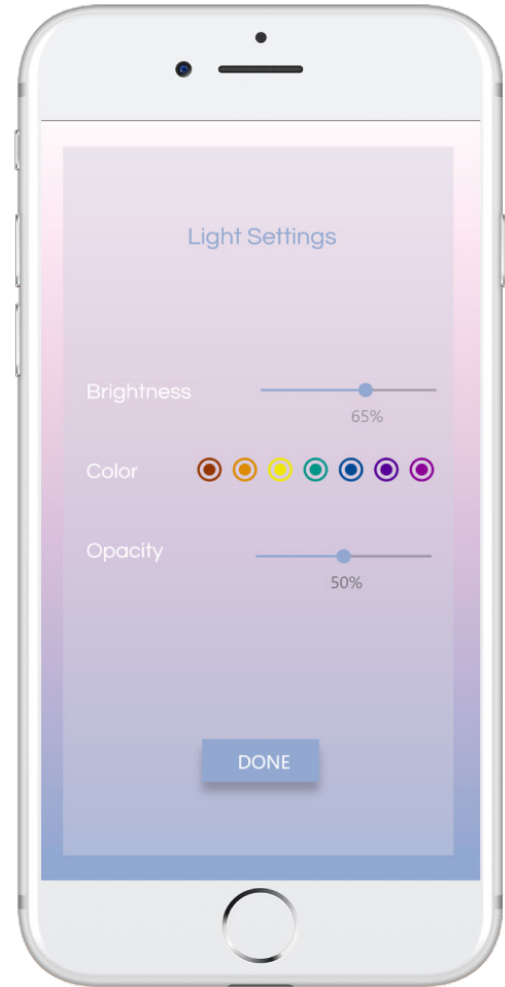
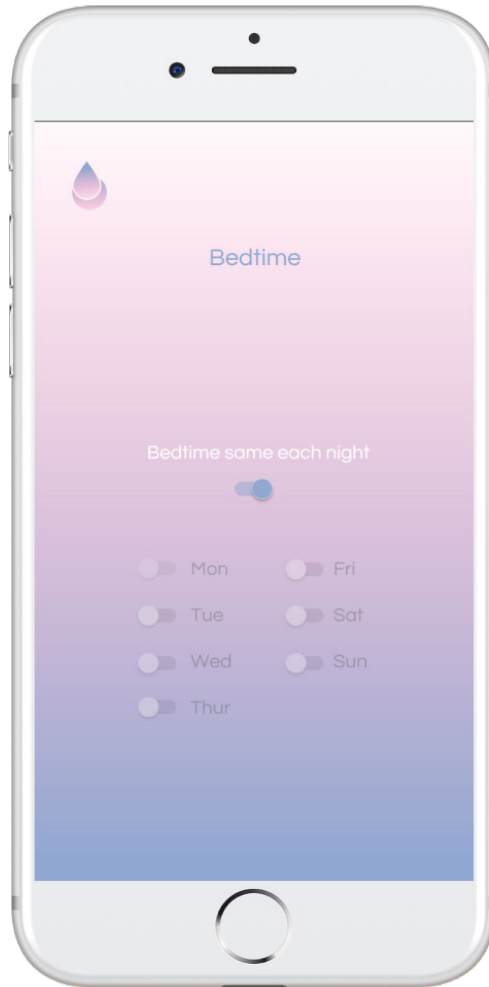
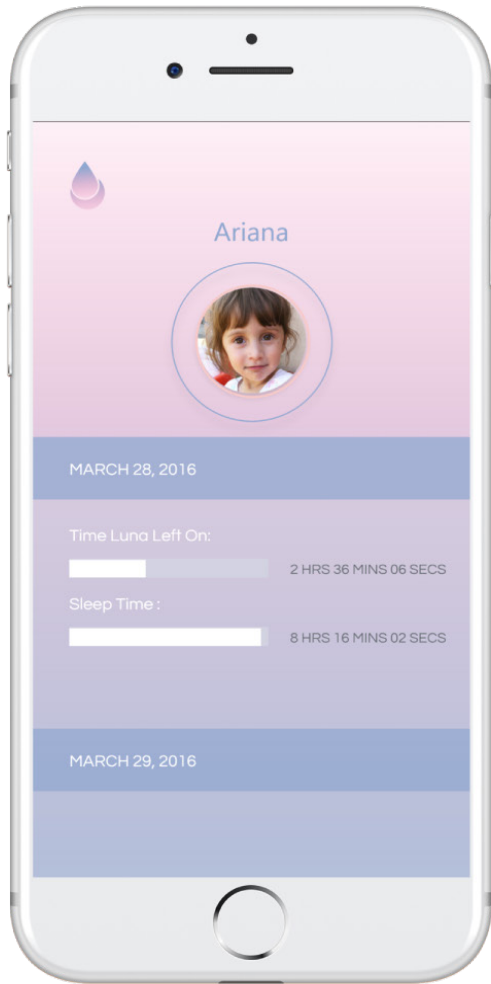


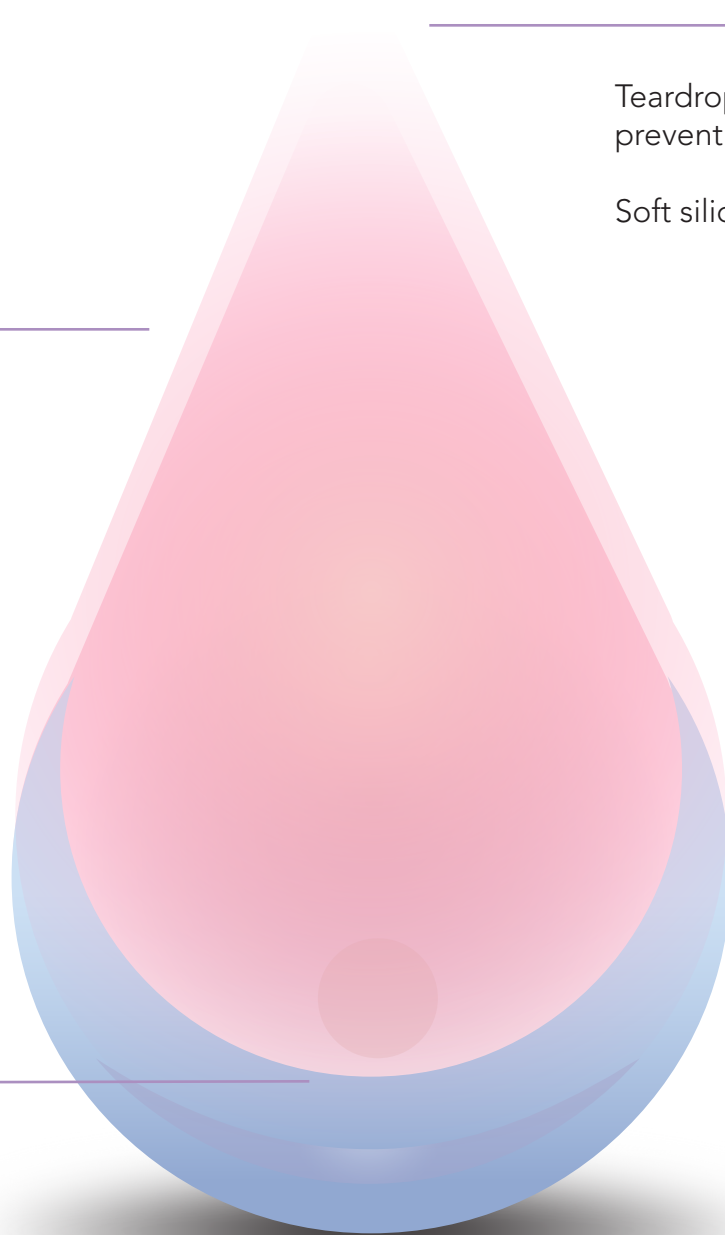
FINAL DESIGNS

FINAL SCREENS









Soft Silicon Shape

Teardrop shape with no hard edges to help prevent any injury to children

Soft silicone to sustain any damage

LED Color Customization

Helps filter light for melatonin production

Wi-Fi Connection

Luna syncs with your mobile device or tablet sending custom alarms

Camera + Noise Sensor

Hidden camera for checking on child throughout the night

Audio sensor that alerts parent when noise is detected

PROTOTYPES

MOBILE APP

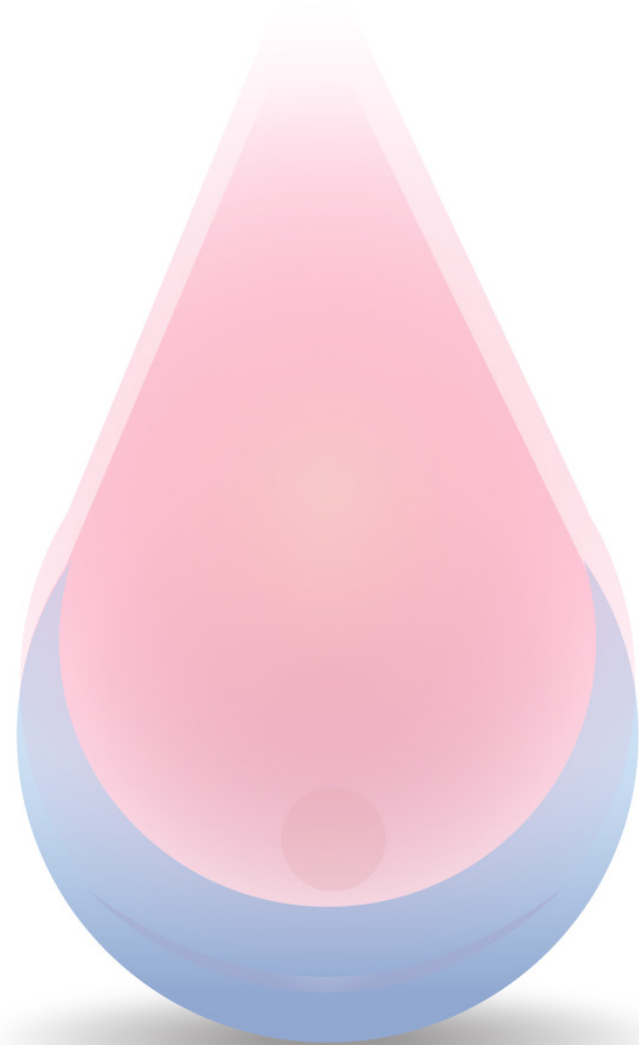
[View App Prototype](#)

<https://marvelapp.com/ajac589/screen/35653563>



[View Prototype Overview](#)

<https://vimeo.com/245138912>



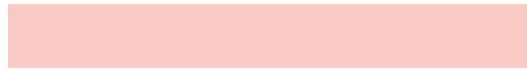
APPENDIX

WORD LIST

Calm	Gentle	Light	Comfort
Restful	Soothing	Luna	Progress
Relaxing	Biofeedback	Development	Serene
Sleep	Productive	Healthy	Minimal
Circadian	Training	Dream	Neutral
Rhythm	Helpful	Care	Clarity
Cycle	Simple	Night	

VISUAL GUIDE

Color Palette



Rose Quartz
#F7CAC9



Serenity
#91A8D0



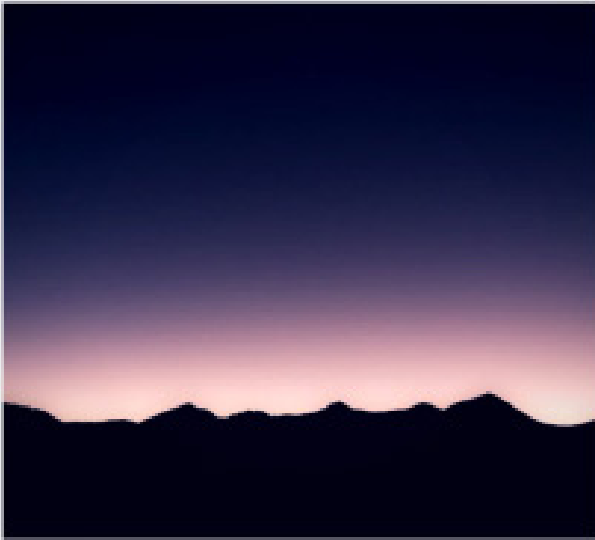
Violet
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Typeface

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
Avenir Heavy

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
Avenir

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
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Quicksand



WAXING

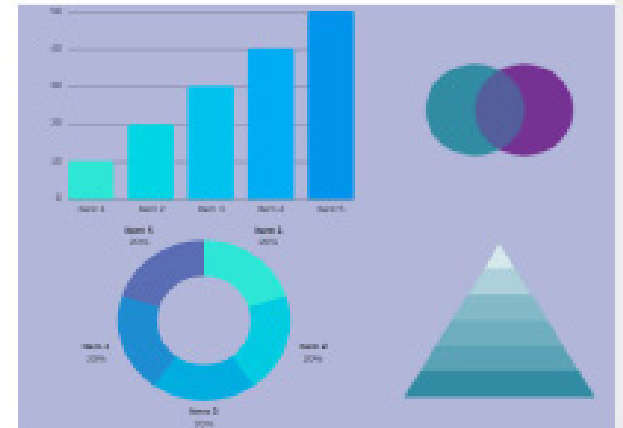
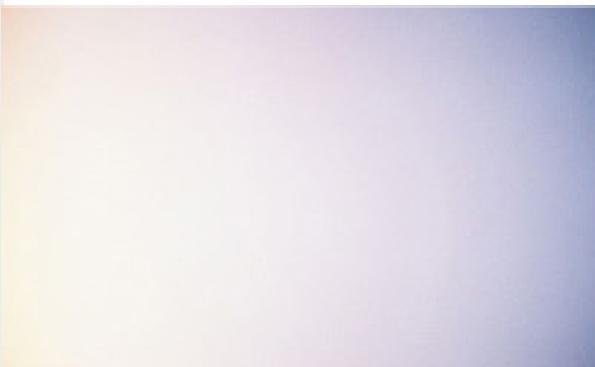
Third Quarter Moon
RELEASE AND LET GO
Let go of the habits that bind you and do you harm.

Waning Crescent Moon
SURRENDER
Recuperate and rest. It is okay to feel empty sometimes.

New Moon
NEW BEGINNINGS
It's time for a clean slate, start to gather your thoughts and plan.



LUNA MOOD BOARD



Thank You