

BLOBUD

Miia Le, Aidan Reeves, Ian Johnson

HAVE YOU EVER
HEARD OF
“WINTER BLUES”?

S.A.D

Seasonal Affective Disorder

Was first suggested by Norman E. Rosenthal, M.D., in 1984 as a specific depressive disorder syndrome on human as an affect of the changing in seasons.

SAD begins and ends at almost the same time every year. Happens more often from fall entering winter season and get resolved starting spring to summer.

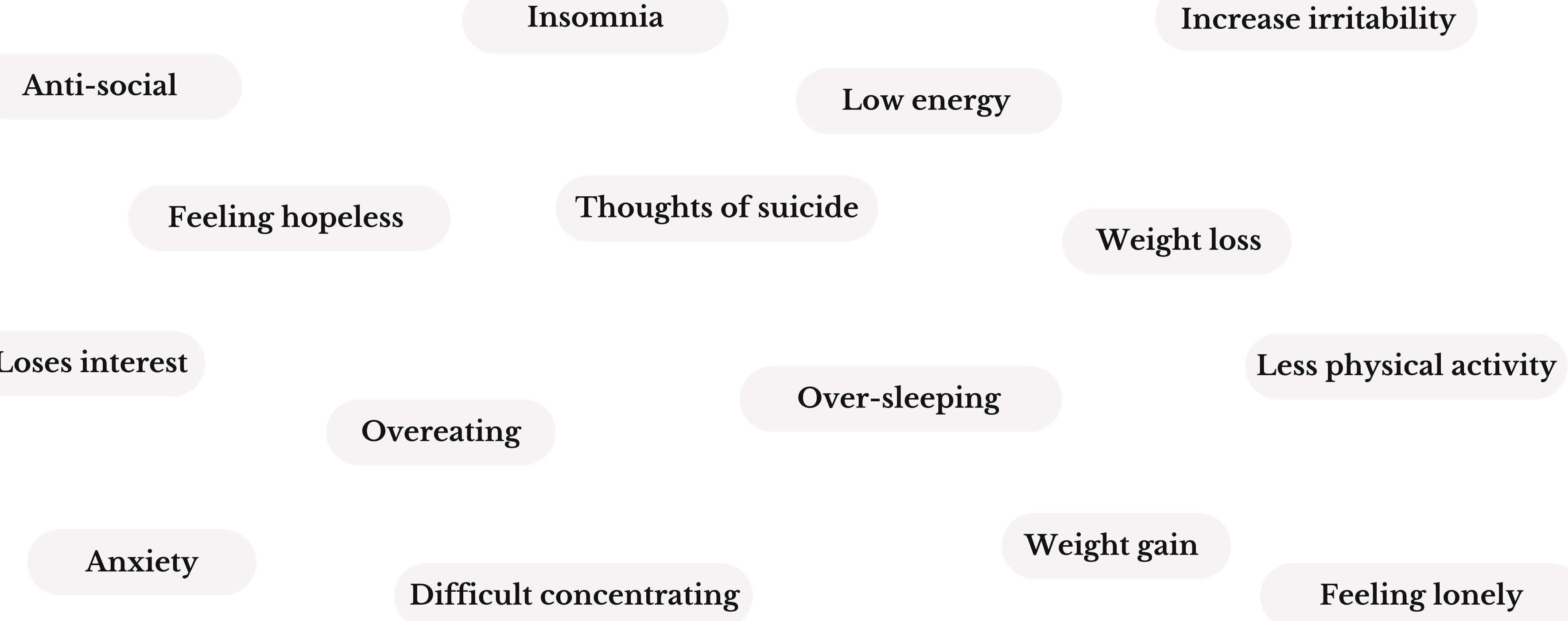
Less common for spring and summer.



Why SAD?

- Freedom of being outdoor got affected during and after Covid-19, people work from home more, spending less time under the sun.
- Reduce level of sunlight in the fall and winter months that lower the serotonin level .
- When the days are darker and shorter, the brain produces more melatonin which result in the individual's circadian rhythm- “biological clock” - being out of sync with the natural clock.



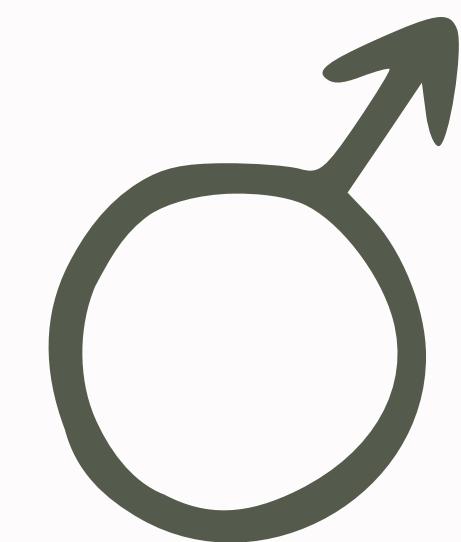
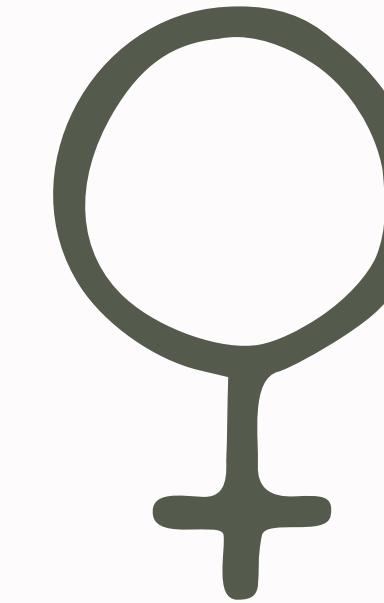
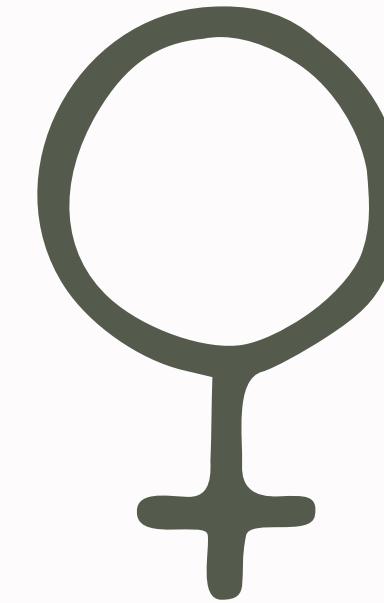
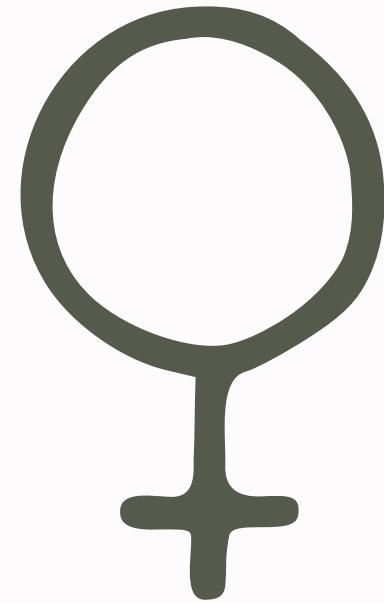


What are the symptoms?



“Averagely, 5% of the US population experiences SAD every year.”

Mental Health America



“Four out of five people who have seasonal depression are female.”

Mental Health America

Age group from 20 to 30 years old.



**However,
symptoms can develop
earlier**



The further away a person live from the equator, the more chances they have to get S.A.D



Amanda

- 28 years old
- Profession: Software engineer
- Marital status: Single
- Grew up and still living in Seattle, WA

Amanda gets moody and “winter blues” every time the season changes and Seattle sky gets gloomier.

She thought it’s just one part of being an empathetic human being. Each day goes by, her SAD gets worse, since her work is now remotely, there’s no reason to go outside anymore.



What can we do?

GAMIFICATION

- Inspire engagement
- Provide feedback loops



- Improve concentration
- Build interests
- Practice patience

PHYSICAL

- Encourage physical interactions /movement



MENTAL

- Stabilizing energy
- Uplifting mood



COMPANIONSHIP

- Eases anxiety and loneliness.



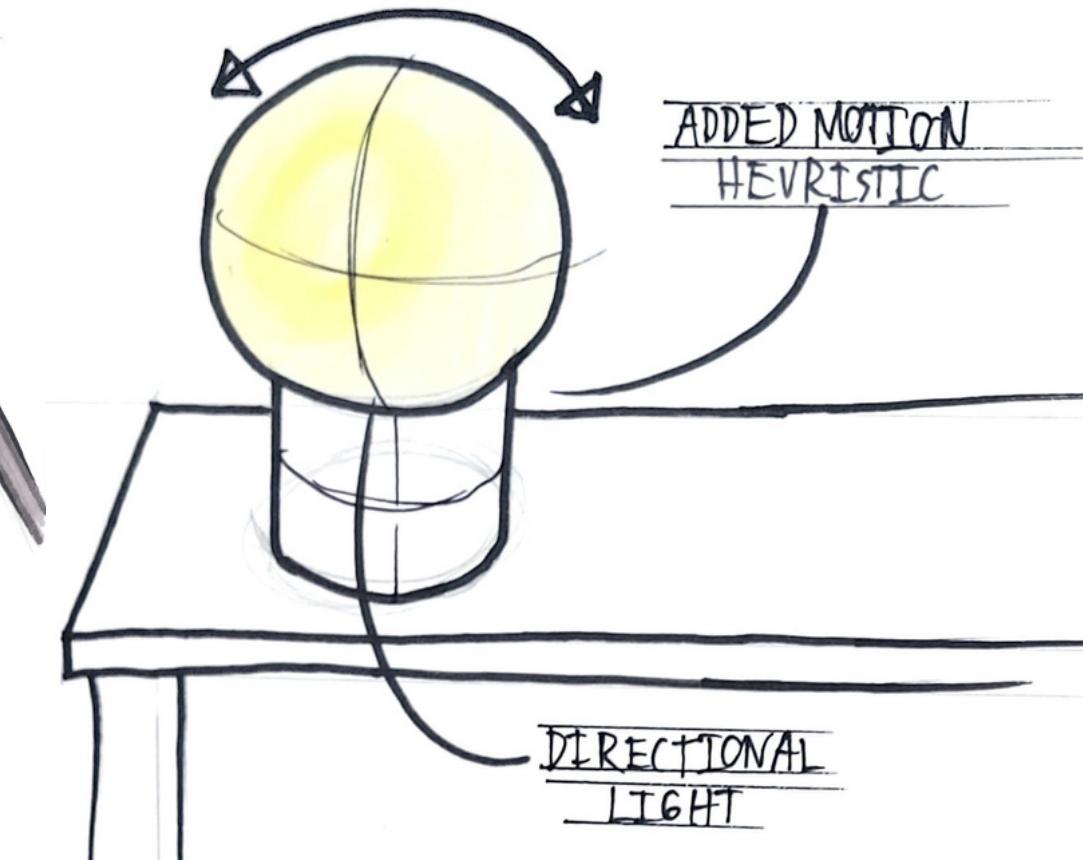
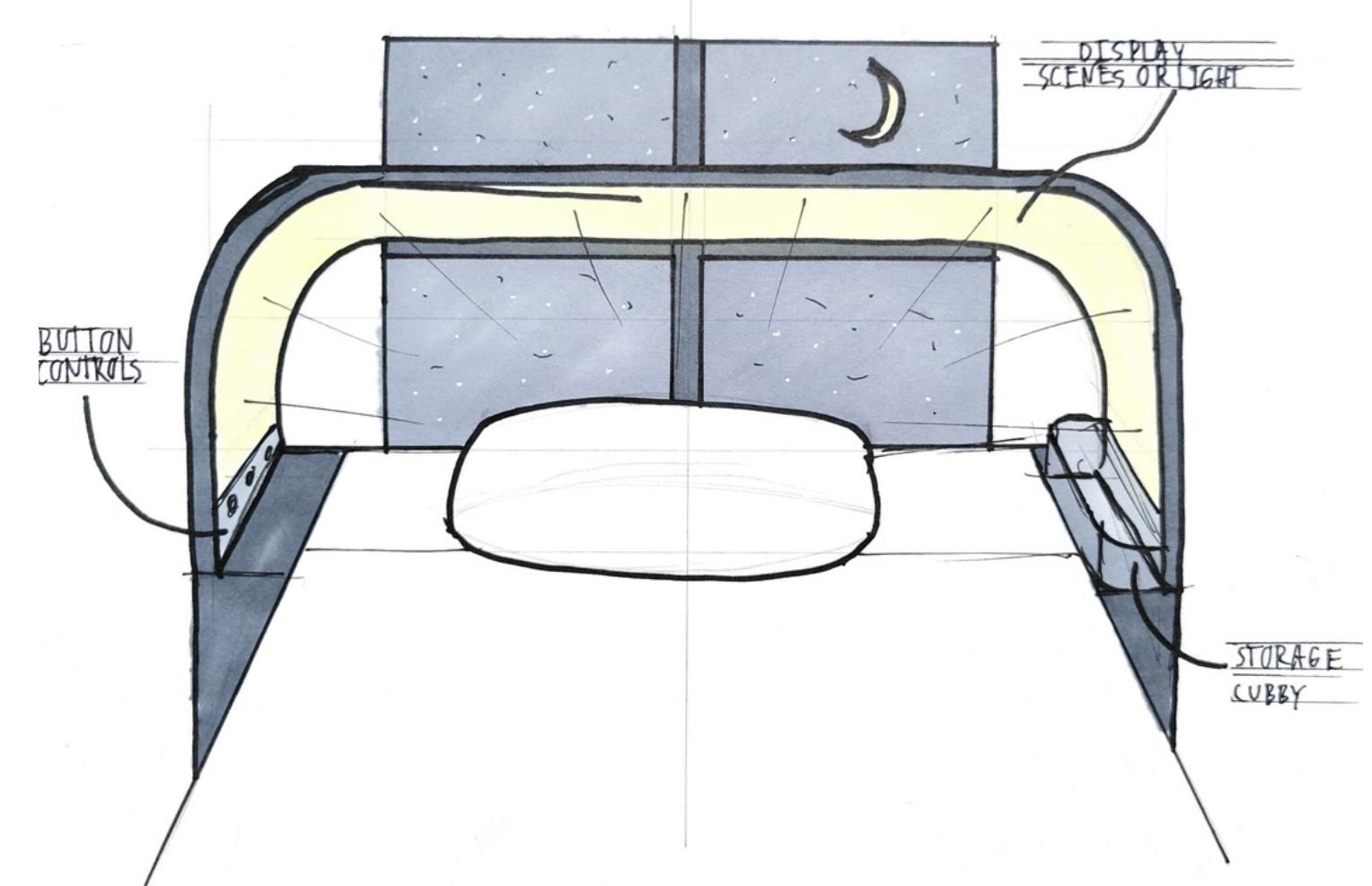
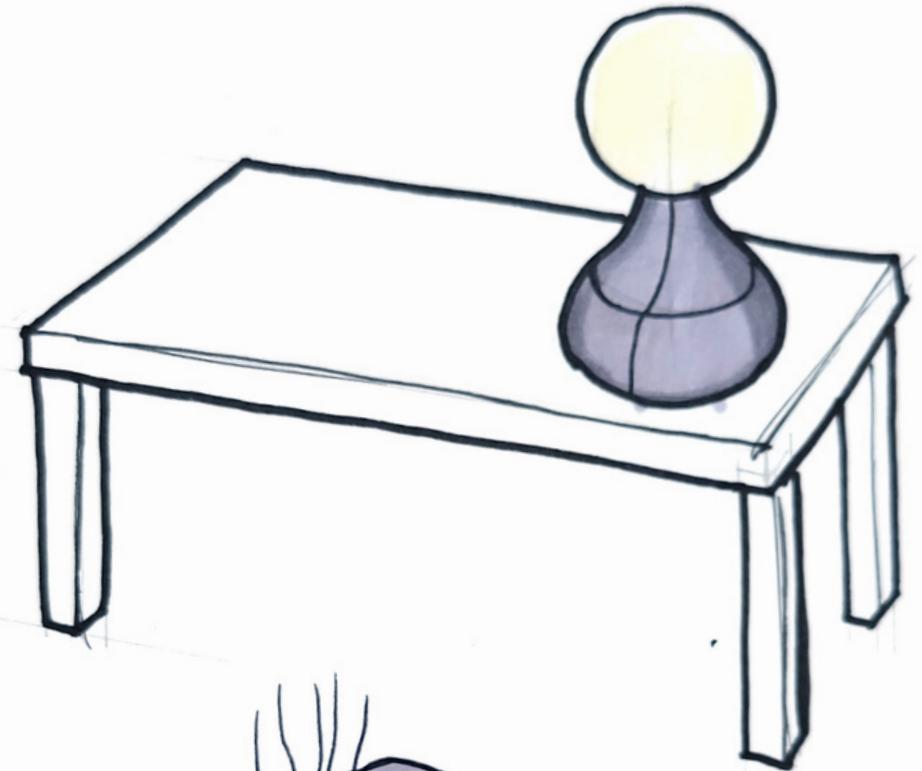
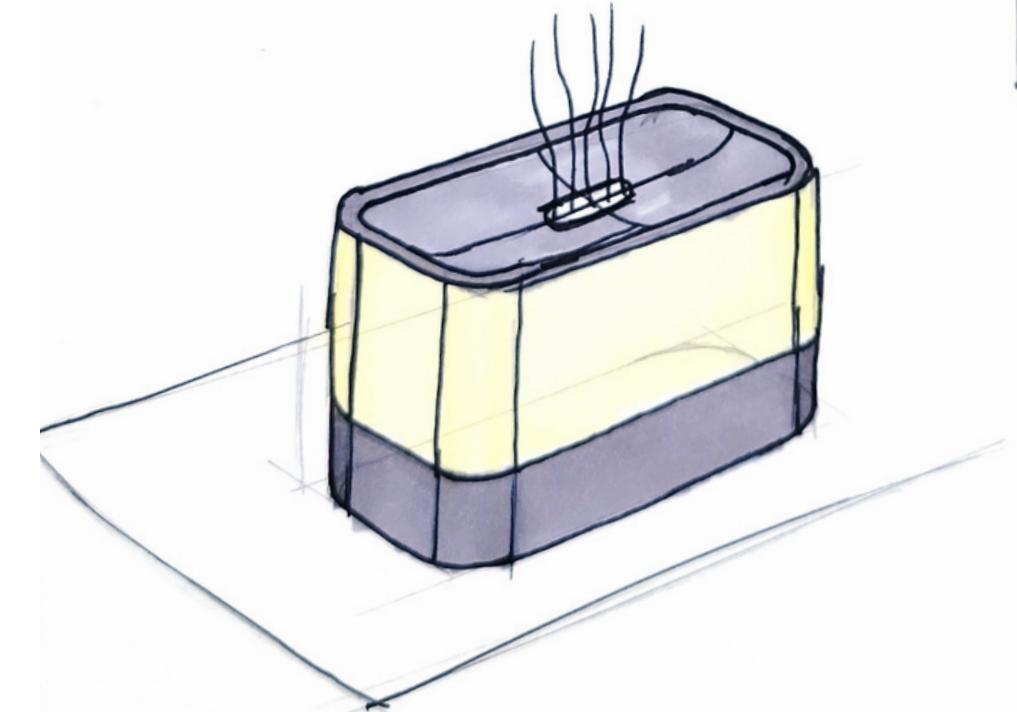
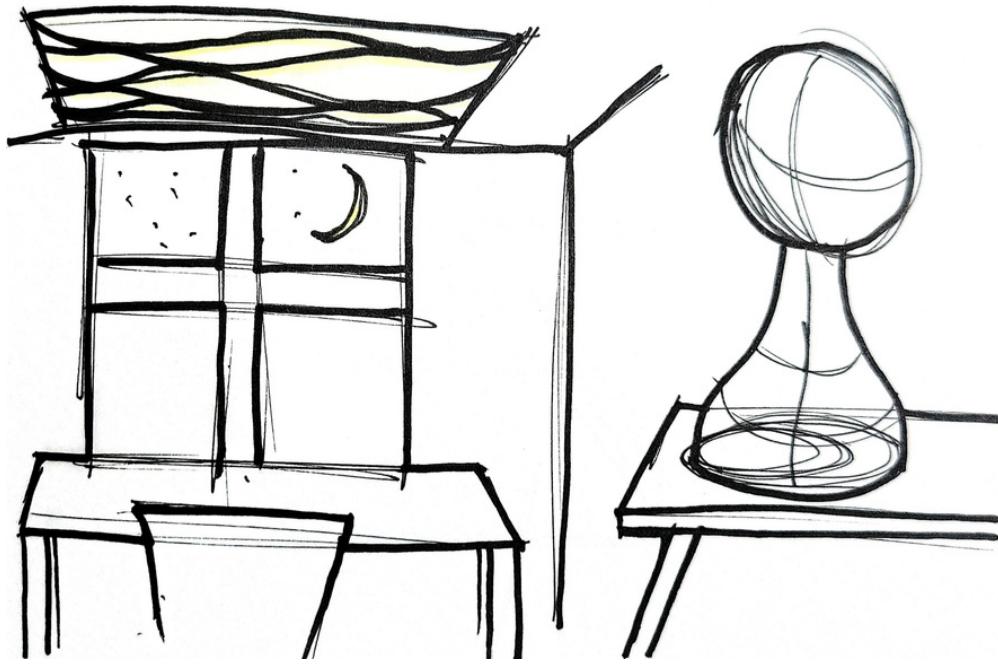
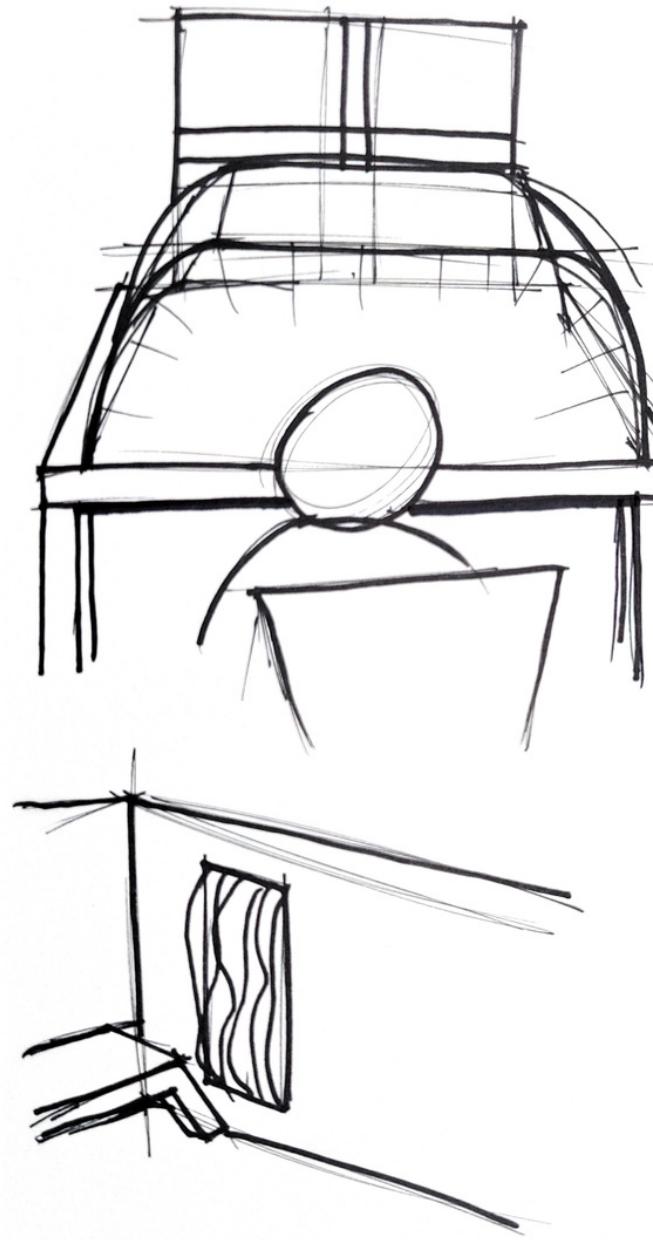
- Improve physical health
- Burn energy
- Better sleep habits

- Better eating habits
- More confident
- Resilience

- Less anti-social
- Feel safe at home
- Enjoy self-time

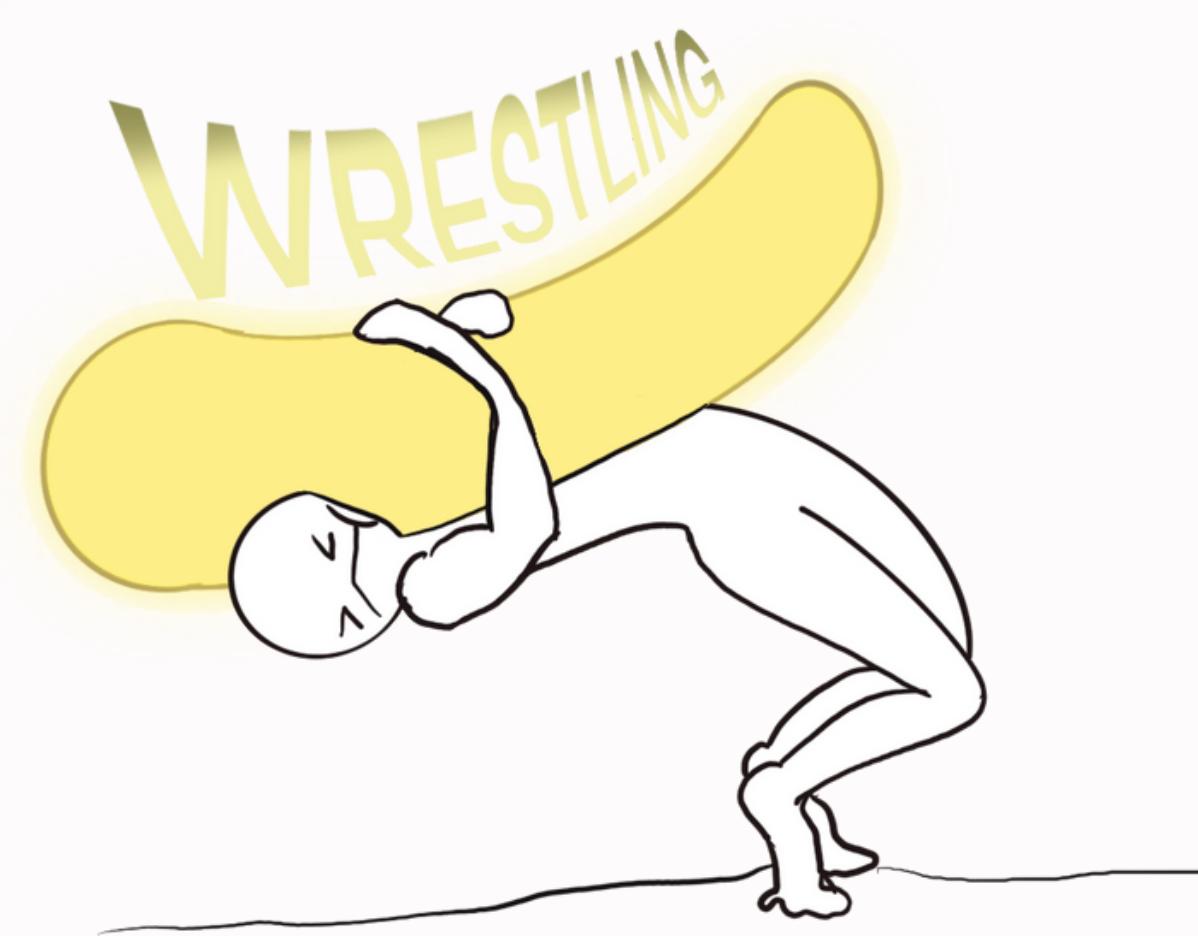
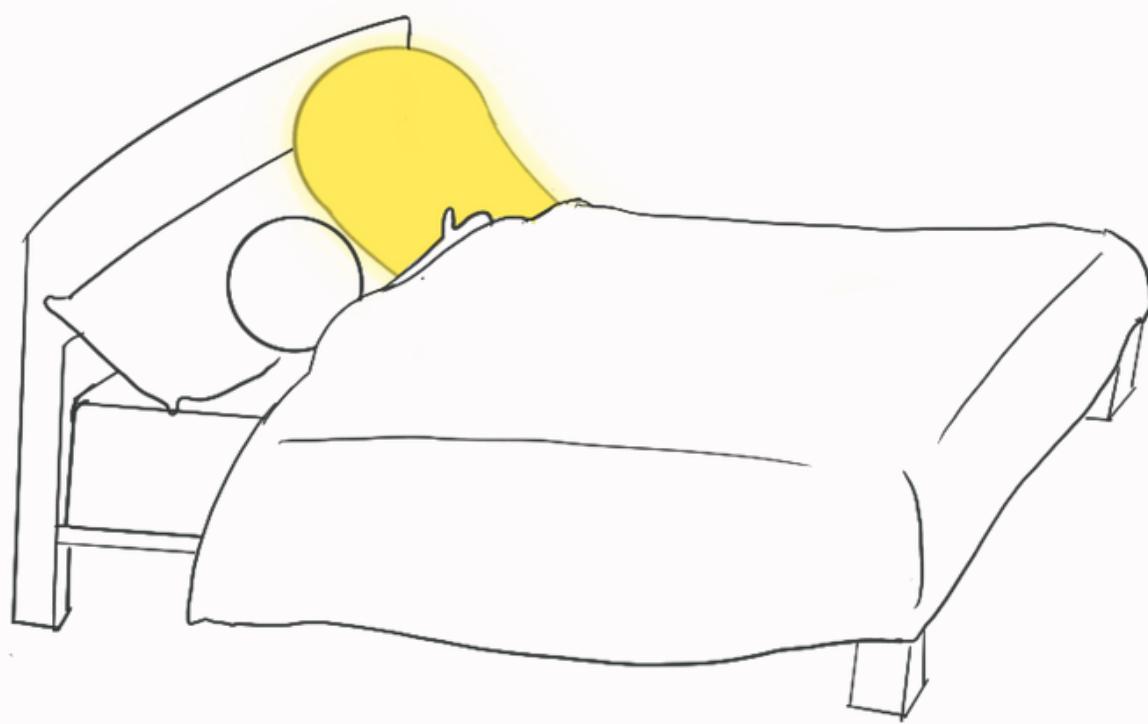
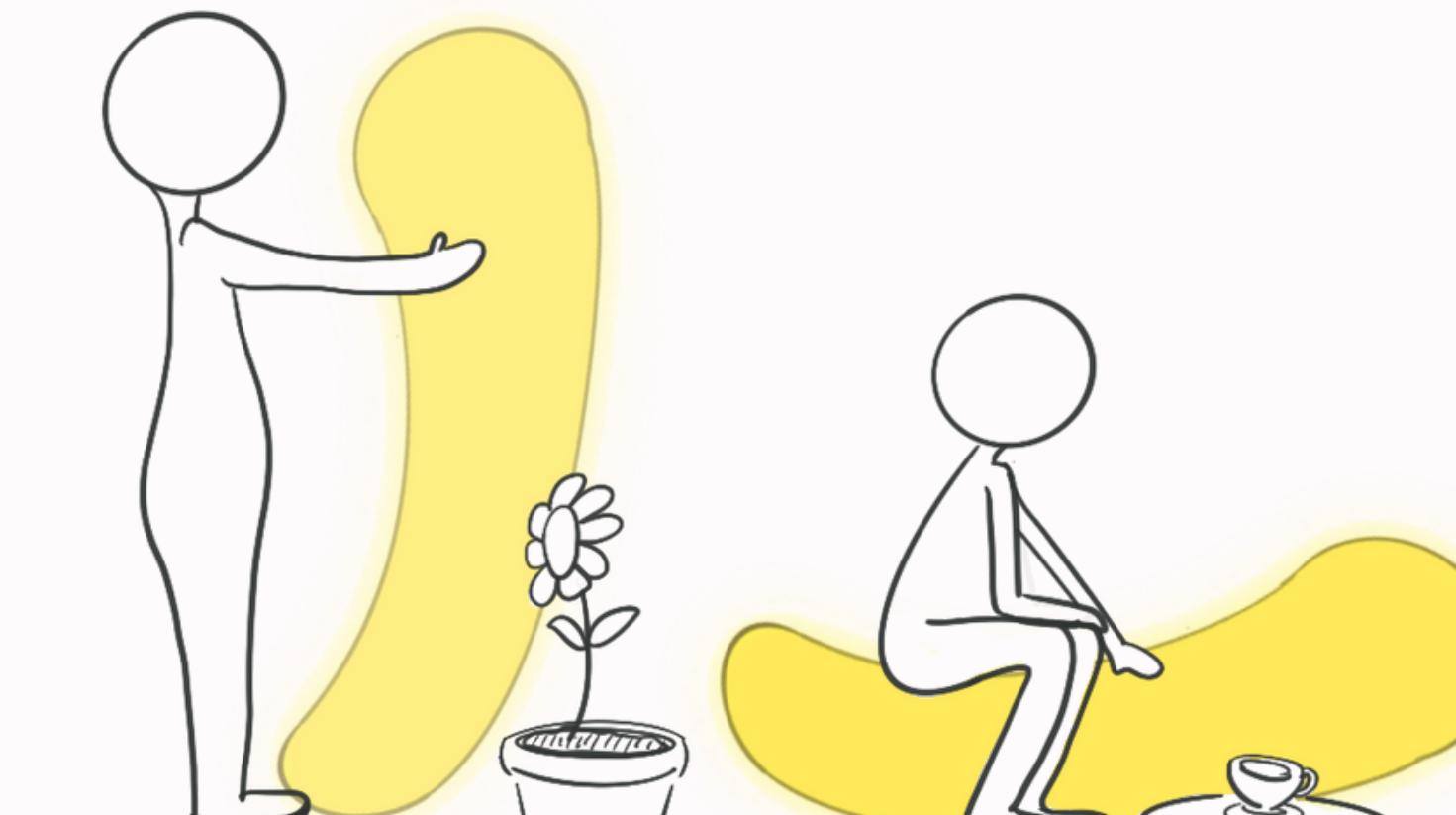
Ideation Sketches

Aidan Reeves



Ideation Sketches

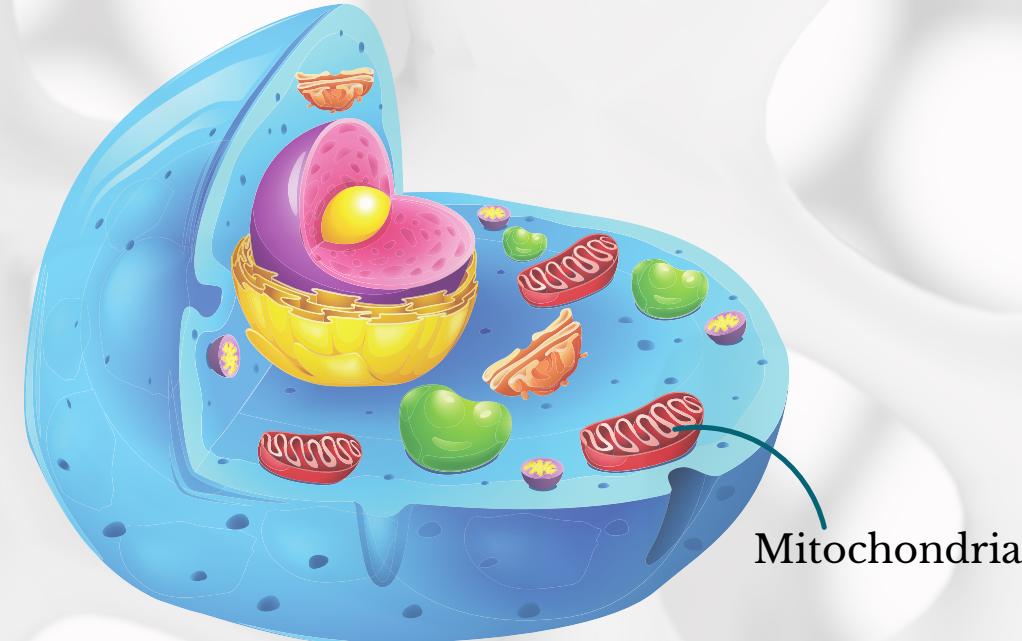
Mia Le



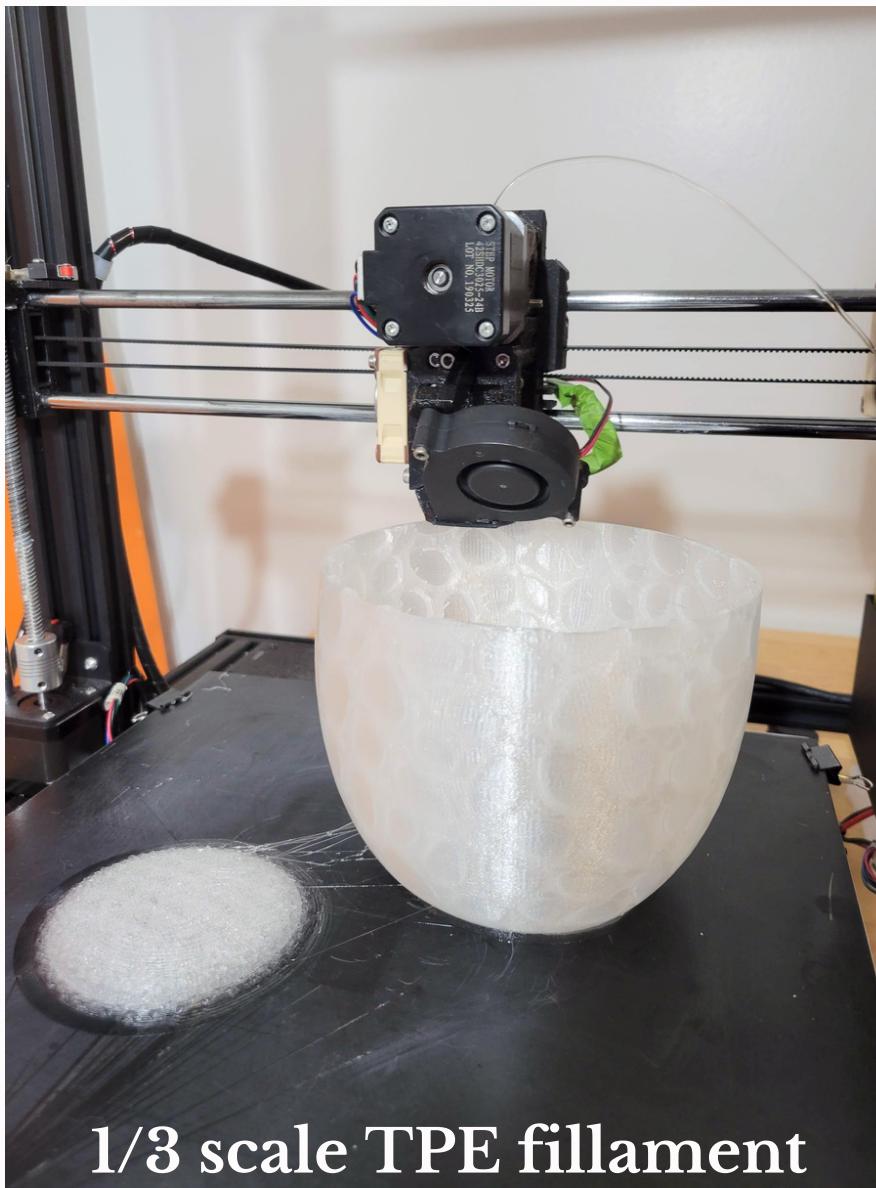
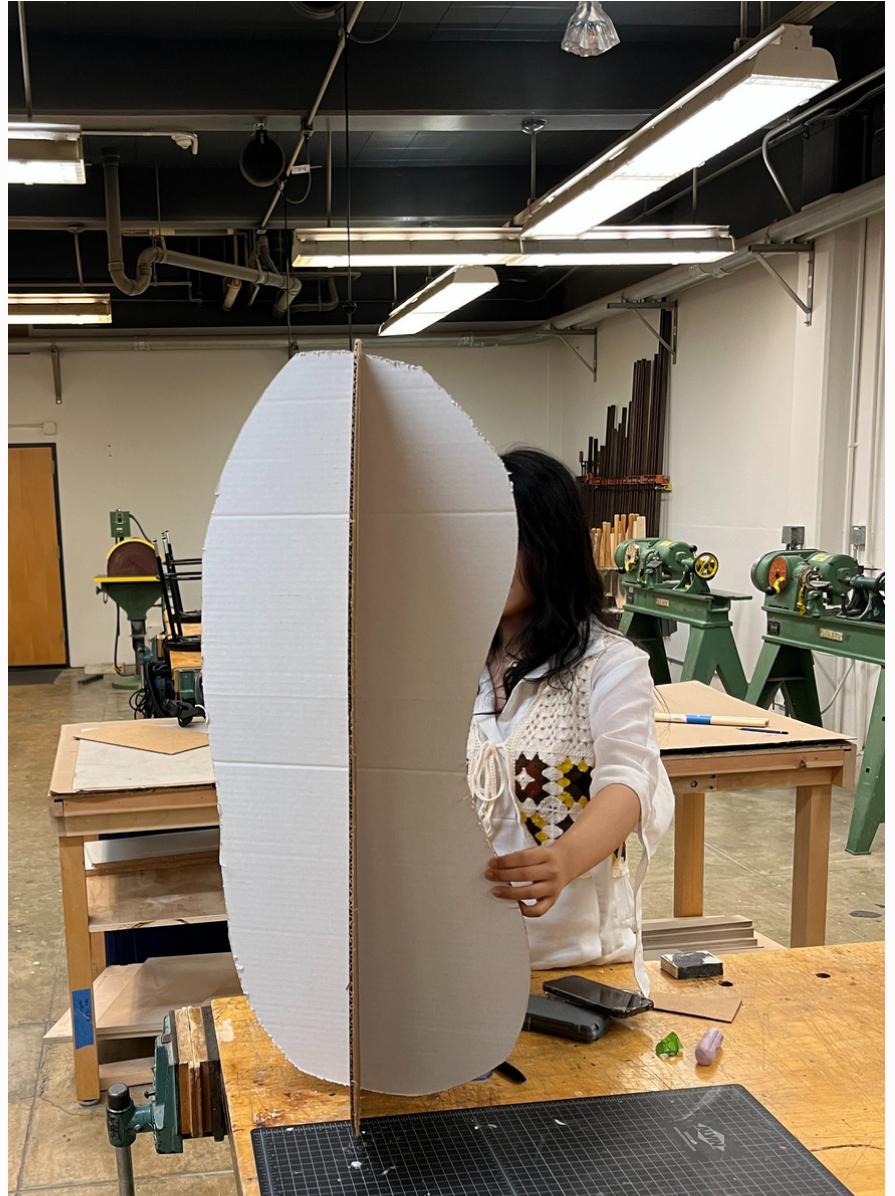
Inner Structure

Inner skeleton of BloBud houses light strips and electrical components with the structure inspired by the shape of Mitochondrion. Using generative design for superior strength and stability while also retaining the squish factor.

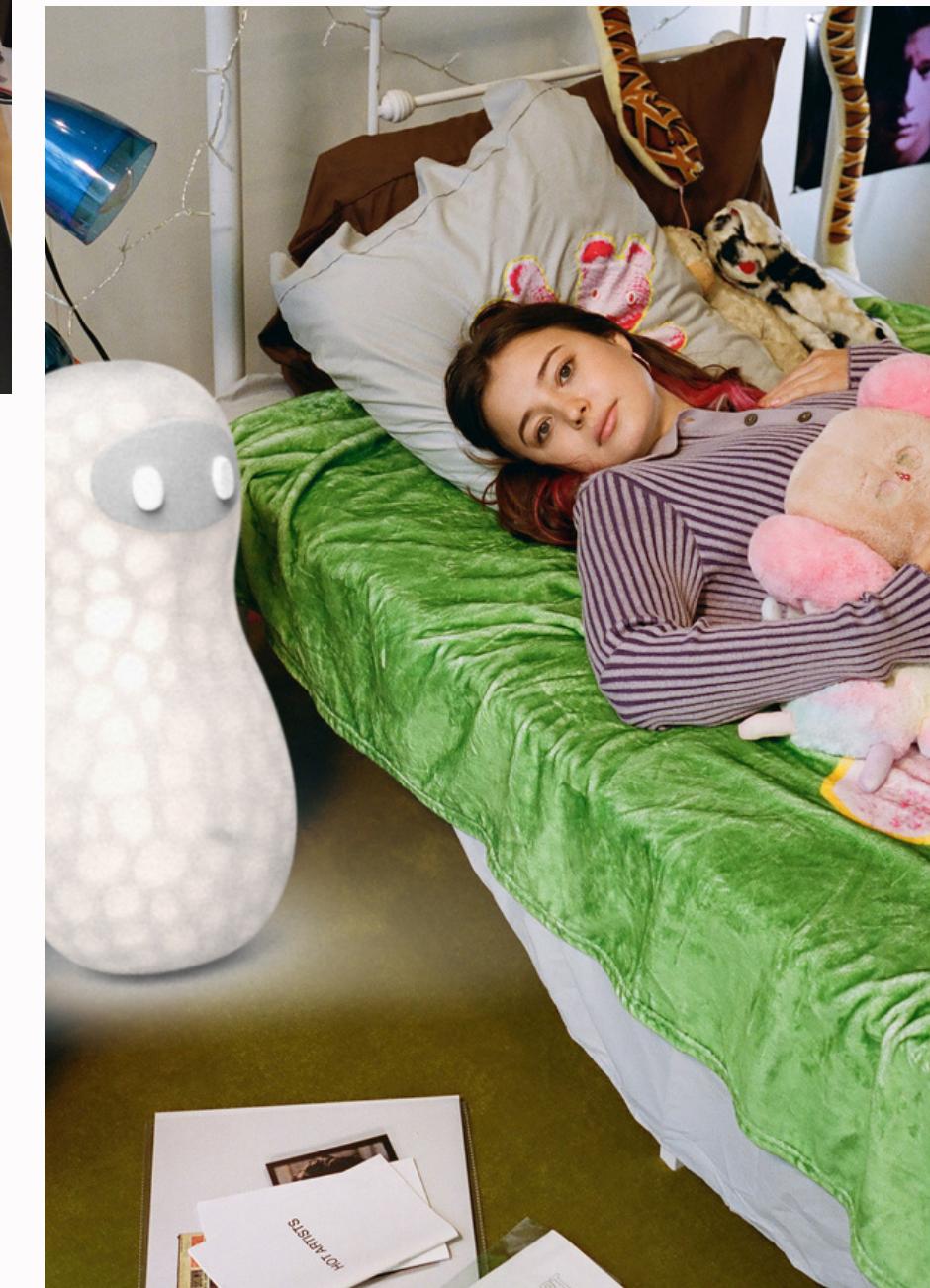
Mitochondria are often referred to as the powerhouses of the cell. Their main function is to generate the energy necessary to power cells. _Medical News Today_



Inner Structure of BloBud



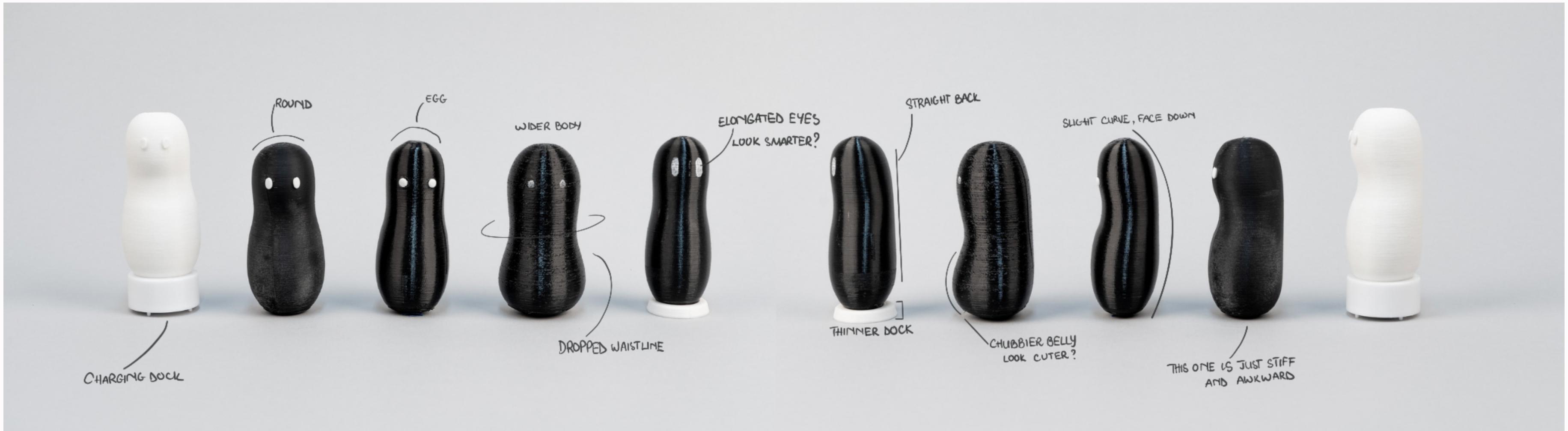
Full scale Mock-up



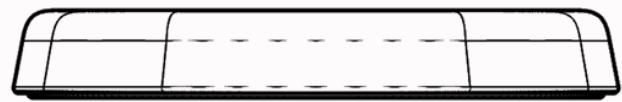
Full scale model

3D-Printed Prototypes

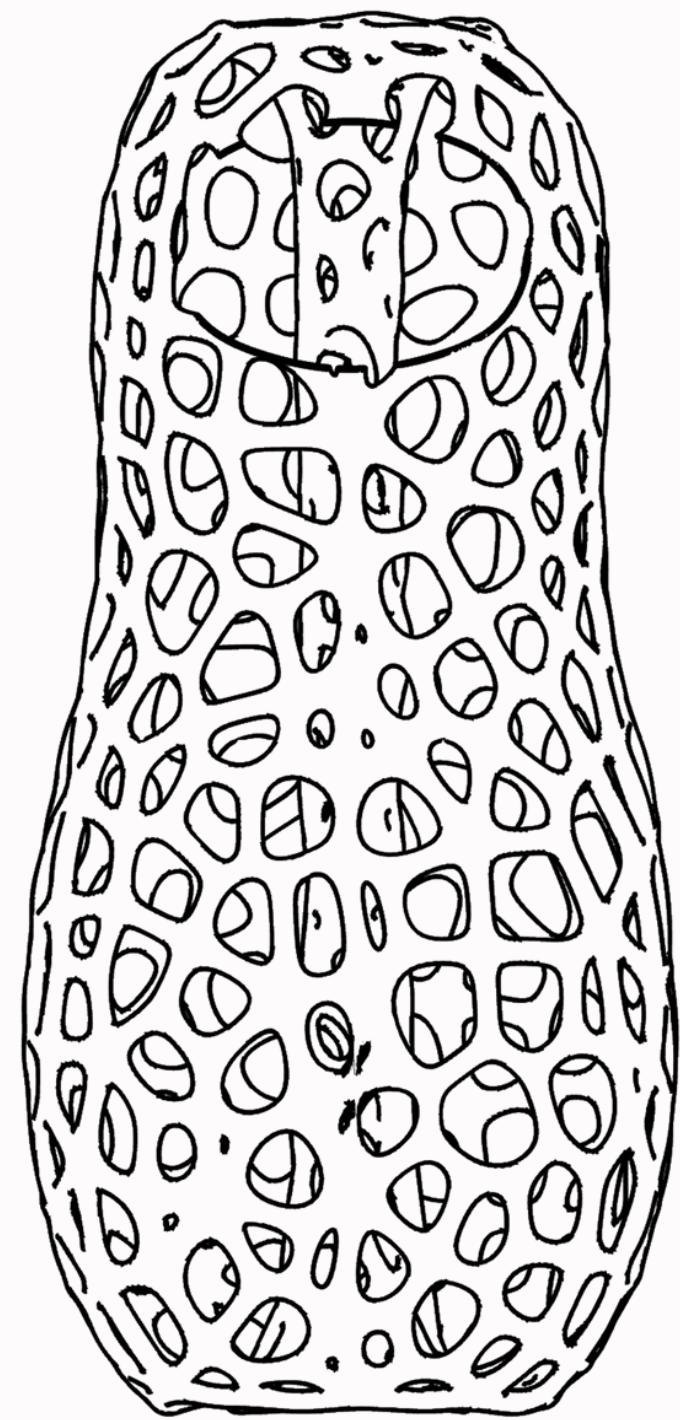
TPU Fillaments
1/10 scale



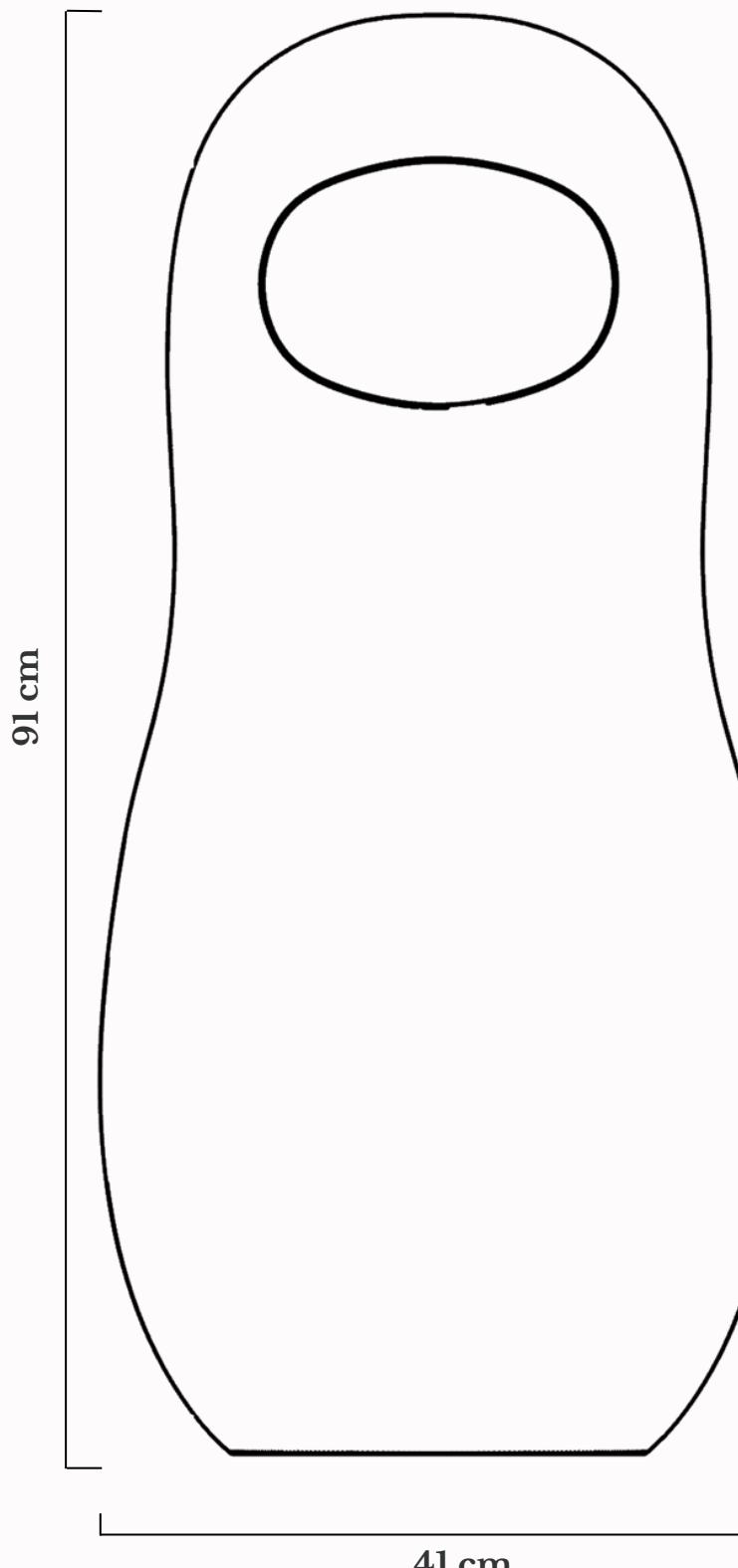
Exploded CAD Drawing



Charging Dock



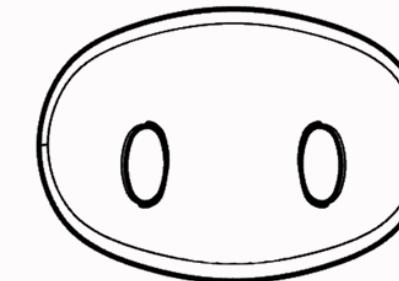
Mitochondria



Skin



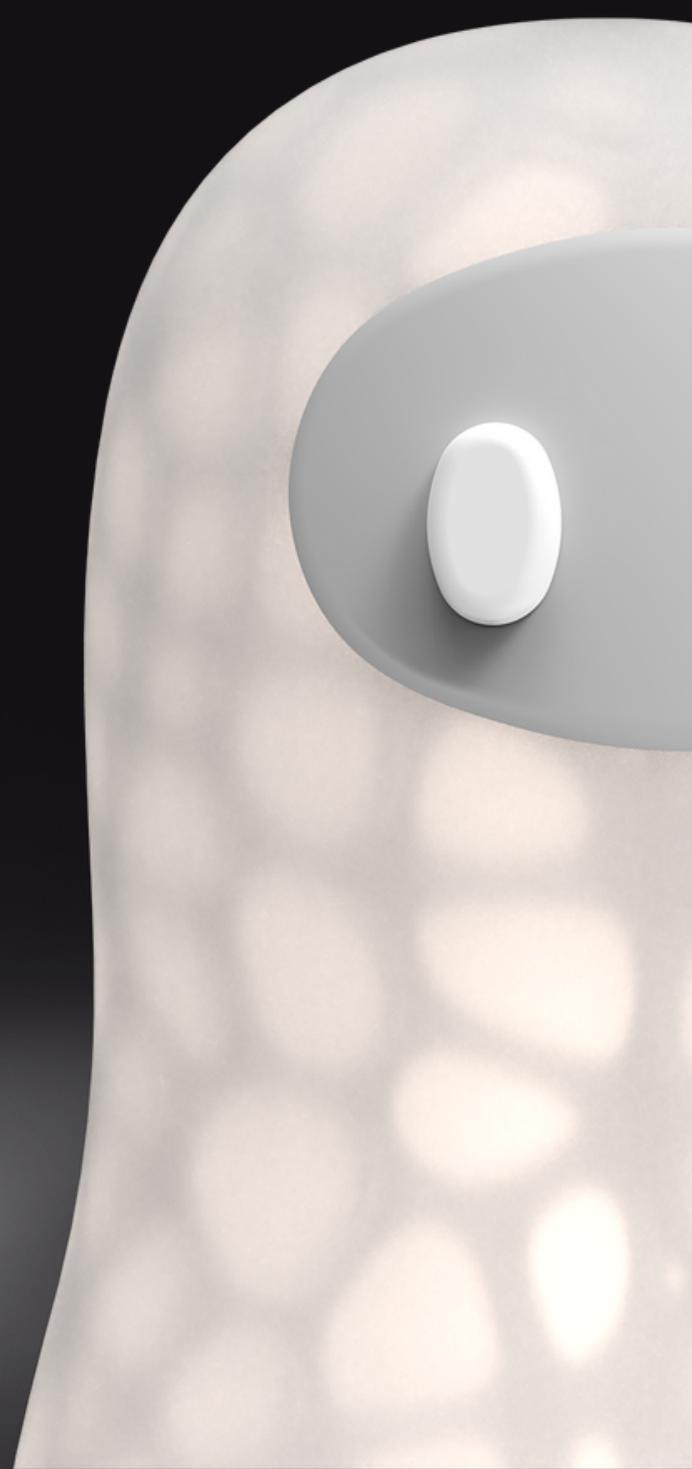
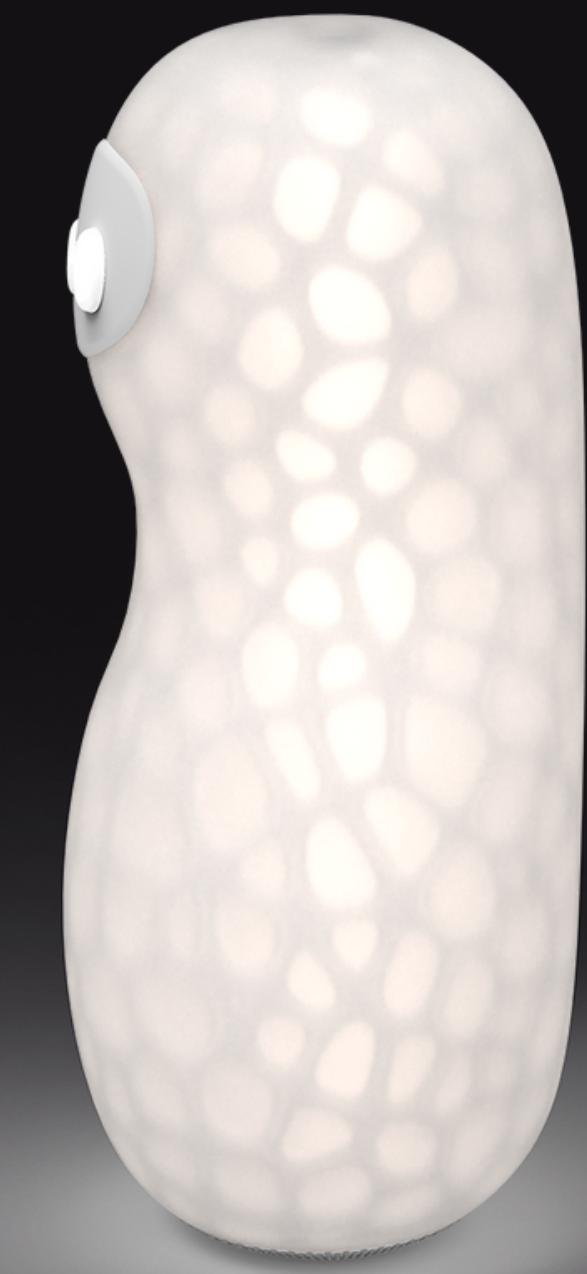
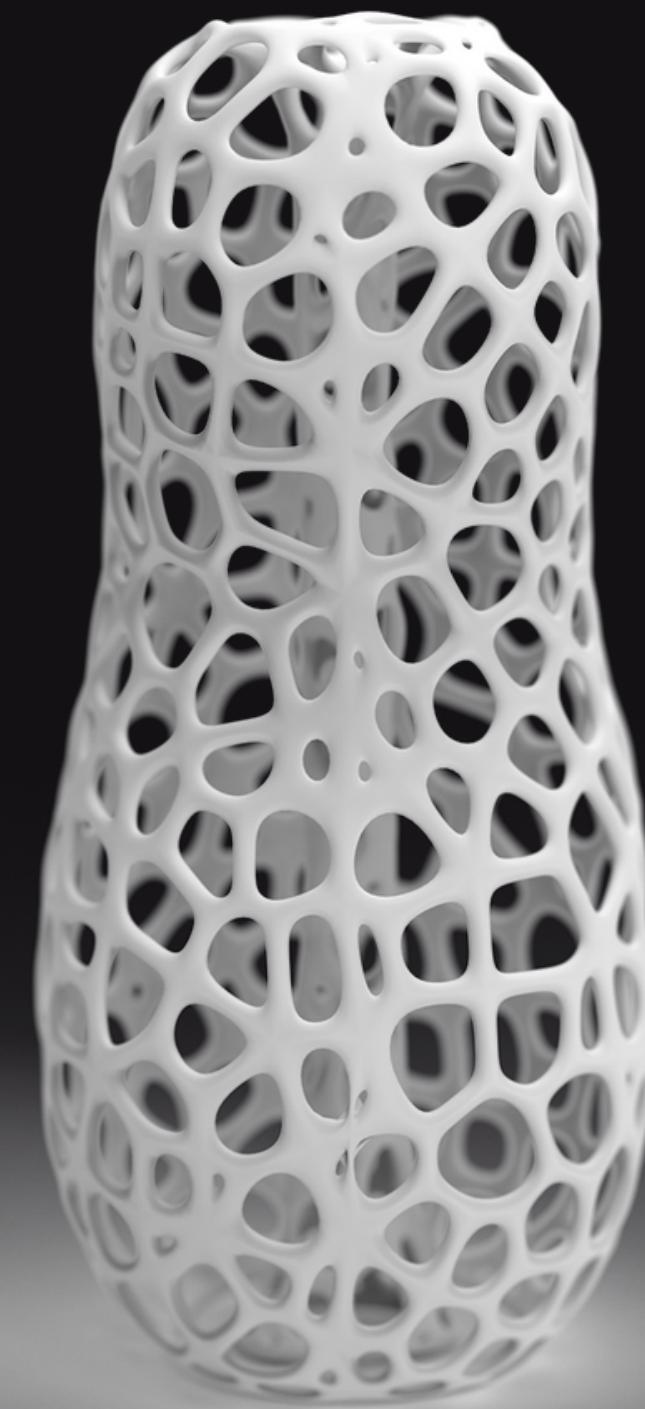
Face



Eyes

BLOUD





Product Features

BloBud molds light therapy into a friendly shape. It blobs around in your home, acts as a piece of your furniture, a night light, a cuddly pillow, a foot rest, emitting ambient light and best of all, BloBud keeps you company even on your hardest days!

Using smart interactive technology like Google Home and Alexia, BloBud can sync to your alarms, remind you with your daily tasks and motivates you back into a healthy everyday schedule.

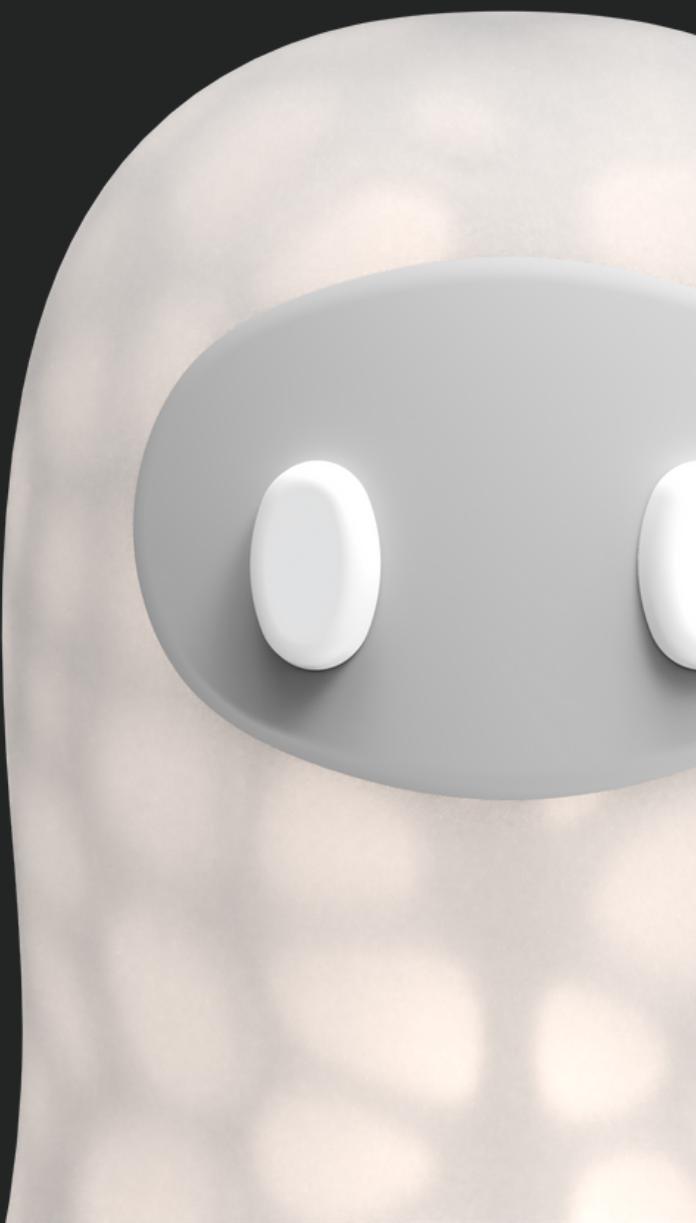
With the LED lights, brightness can radiate up to 10,000 lux, changes colors to your liking, it can even synchronize with your music!

Conclusion

While the concept and general form has reached a final state, details like the base could use further iteration and testing. Functionality like lighting, batteries, and circuit boards would then be added and tested, allowing us to confirm the final weight distribution.

TPE is a more bio-friendly and recyclable material than silicone, it is by no means perfect. Further iterations would focus on researching new biomaterials to mimic the softness, flexibility, and inertness of silicone without the degrading energy impact and lifecycle. A lifecycle analysis would also be conducted to ensure there is no harmful lasting impact.

Tell me your problems, I'll offer you my warmest hugs, always.



<https://www.medicalnewstoday.com/articles/benefits-of-sunlight>

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<https://wchh.onlinelibrary.wiley.com/doi/pdf/10.1002/pnp.173>

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