



Sweet Dreamz^{zz}

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Our Goal

To create a physical product that
enables the user to record their
dreams and watch them the next day
via phone application



Quick Facts

- The average adult forgets **95%** of their dreams
 - On average, they experience 4-6 dreams per night, lasting about 15-20 minutes each
- Adults can recall up to 70% more of their dreams than children
- It is believed that dreams have 3 main functions
 1. Store important memories and things we've learned
 2. Weed out unimportant memories
 3. Sort through our thoughts and feelings



Importance of Dream Recall

- Emotional processing and regulation
- Childhood executive function
- Memory retention



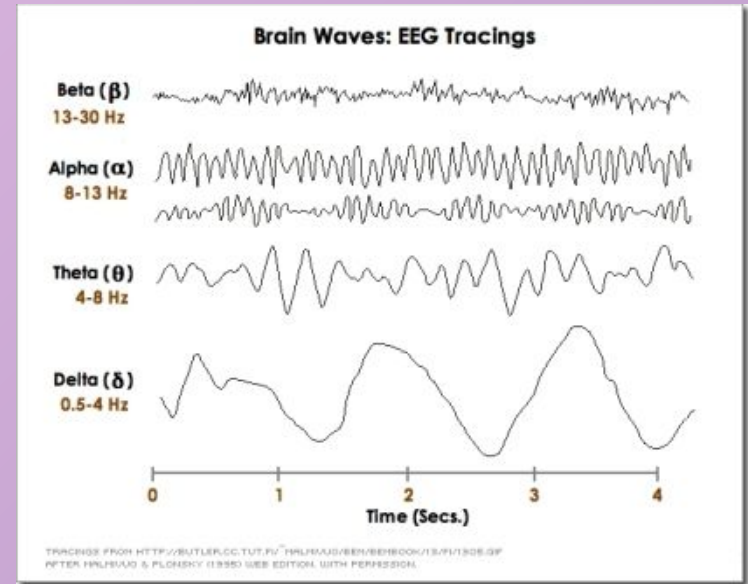
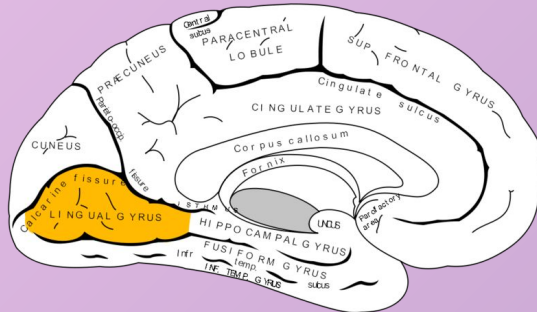


How We Can Help

- Dream recall has a beneficial role in the processing of stressful or traumatic events
 - Improvement of executive function in developmentally delayed children
 - Pediatric sleep studies
 - Delay of memory loss in advanced age
 - Pure entertainment
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Science behind dreaming

- Dreams are generated in/transmitted through the inferior lingual gyrus which is located in the visual cortex
- Most dreams occur during the REM stage of sleep
- Electroencephalography(EEG)
 - Can measure your brain waves



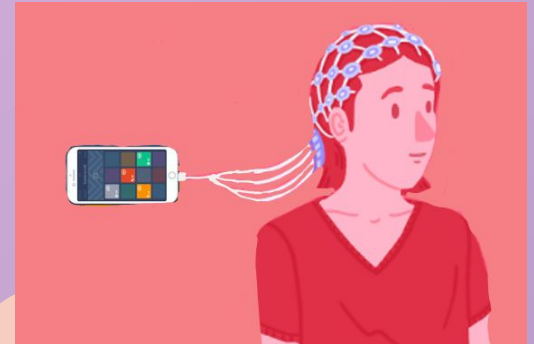
How our research will work

- “In 2011, researchers from the Gallant lab at University of California, Berkeley had participants watch movie trailers, and researches were then able to reconstruct low resolution videos of what they were viewing using only their brain activity.”
- Targeted Dream Incubation (TDI) and EEG's
- Lucid Dreamers
 - Posterior cortical “hot zone” indicates when a person is dreaming
- Biggest challenges
 - fMRI and EEG measurements



How our device will work

- Users will wear device while sleeping and EEG recording will take place once the “hot zone” indicates a dream is occurring
- This will be done over and over again until the user is fully awake
- The goal is for the EEG to take its data and turn it into a viewable option for users. Ideally, the EEG data should construct a video of your dreams to your mobile device the morning you wake up.



Major Tasks

- 1. Research and development**
 - Designing
 - Prototyping
- 2. Testing**
 - Effectiveness
 - Safety
 - Comfort
- 3. Financing production and distribution**
 - Need to obtain financial sponsors/investors
- 4. Manufacturing**
 - Need to establish manufacturing location
 - Need to obtain necessary manufacturing licenses
 - Establish a system to ensure we have all the parts needed to continuously build our product
- 5. Distribution**
 - Start domestic and move to international distribution
- 6. Marketing**
 - Create website ads & a commercial





Schedule

April 2022	Development and research begins
December 2024	Research and development is finished by the end of 2024 and testing begins
June 2025	Testing is finished by the summer of 2025 and the manufacturing process begins. In addition, production of a commercial and development of website ads begin.
September 2025	With a manufacturing system in place, the product will start being mass produced, and all advertisements are finished
October 2025	The first <i>Sweet Dreams</i> hit the open American market and the advertisements are released
January 2026	<i>Sweet Dreams</i> is now available internationally
January 2027	Will good sales be can begin to grow the company by building more manufacturing sites and production of a new dream scanning product begins

Budget

Estimated Costs

- 10 million of research and development
- 5 million on testing
- 10 million *per quarter* on buying parts and components (makes 50,000 units, 200 per unit)
- 5 million on manufacturing *per quarter*
 - Employee salary
 - Renting factories
 - Powering the facility
 - Manufacturing insurance
 - Distribution
- 2.5 million on advertising *per quarter*
- Total of
 - **32.5 million for the first quarter**
 - **17.5 for every quarter after that**

Estimated Profit

- 450 per unit ($50,000 * 450 = 22.5$ million)
- Estimated time until profit
 - $22.5x = 32.5 + 17.5(x-1)$
 - $22.5x = 15 + 17.5x$
 - $x = 3$
 - $\frac{3}{4} = 0.75$ years
- Therefore we estimate to see profit after about $\frac{3}{4}$ of a year



Facilities and Resources

- Facilities
 - Research facility (employee mainly Cognitive psychologists and computer engineers)
 - Manufacturing site (factories)
 - Distribution Facilities
 - Support team facilities
- Resources
 - Factory equipment
 - Inventory management
 - Human resources (for employee)
 - Financial resources (control the company budget)





Resources

<https://www.scientificamerican.com/article/the-science-behind-dreaming/>

<https://www.media.mit.edu/projects/targeted-dream-incubation/overview/>

<https://www.discovermagazine.com/mind/theoretically-recording-dreams-is-possible-scientists-are-trying>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6801786/#:~:text=A%20study%20on%20dreaming%20in,of%20dream%20themes%20across%20ages>.

<https://www.yorkshire-village.com/blog/view/1207/memory-care-how-memory-loss-in-older-adults-affects-dreaming-patterns>

