



COCOON
BUSINESS PLAN

April 25, 2019



Kajal Sabhaya
Chief Executive Officer



Yatin Singla
Chief Technology Officer



Zachary Larson
Chief Marketing Officer

Discover the security of our future.



KAHAN'S TESTIMONY



On October 6, 2003, Heather and John Kahan's new baby boy, Aaron Matthew, was born. He was healthy according to all of the newborn tests and exams. He cried, he fed, he pooped, and he slept. He posed for photos with his sisters and grandparents. After everyone had the chance to meet him on that first day, they returned home from the hospital, and Aaron fell asleep to never wake up again. The Kahan's had Aaron in their lives for 6 hours, and then he was gone. Without warning, without an explanation. After an inconclusive autopsy, the cause of the death was declared as "Sudden Infant Death". This marked another sudden infant death in America, another big question mark with no answers.

Problem

To prevent the lives of babies such as Aaron's from being taken away by Sudden Infant Death Syndrome (SIDS) research advancements have to be made in order to find a cause to this syndrome. **For the past 30 years**, researchers have been trying to solve the problem of Sudden Infant Death Syndrome (SIDS). To this day SIDS continues to be a phenomenon of unknown causes. This is partly because of the infrequent occurrence of the syndrome¹³. In the United States alone, **SIDS is responsible for 3,500 infant deaths per year**, accounting for more infant deaths in the country than any other cause beyond the neonatal period¹ (the time period of 0-1 month after birth). In a SIDS event, the cause of death remains unexplained even after a thorough case investigation, including the performance of a complete autopsy, examination of the death scene, and review of the clinical history³.

Value Proposition

Cocoon will provide researchers with a device to collect critical information needed to better understand the occurrence of SIDS. The device will allow an efficient analysis of the data by specifically providing researchers with the data leading up to the event. Our product will allow researcher to target groups previously unable to partake in these sorts of studies. The device will enable researchers to collect data in the leading SIDS environment, their home.

Management Team

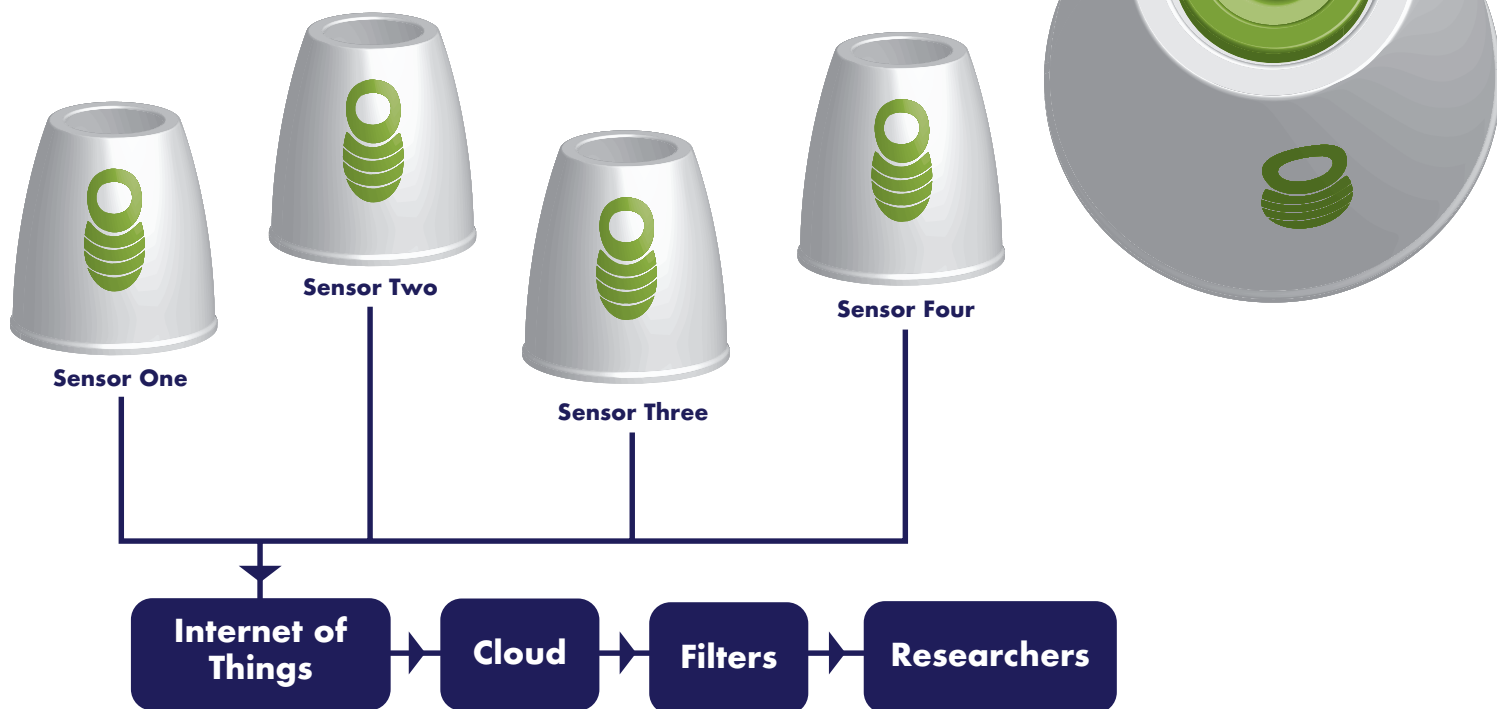
Kajal Sabhaya is a junior at Washington State University. She is double degreeing in Bioengineering and Neuroscience. Kajal is currently an undergraduate researcher monitoring the effects of THC and CBD on signaling patterns in the nodose ganglia. She is passionate about pediatrics and creating technology to improve healthcare solutions.

Yatin Singla is a junior at Washington State University. He is double degreeing in Computer Science and Finance. Yatin is pursuing an undergraduate research in the field of bioinformatics. Yatin is passionate about solving a challenging problem that can make a difference in the world.

Zachary Larson is a junior at Washington State University. He is double degreeing in Strategic Communication and Digital Technology & Culture. After being recruited for brand development and outreach, Zach read about many testimonies on SIDS and has since become passionate about resolving the epidemic.

Product & Technology

The crib will rest on the device. The device detects the vibrations from the crib to monitor vitals such as the heart rate, the respiratory rate and the movement of the infant.



Customer Segment

The end goal for Cocoon is to penetrate the consumer market as the leading device for monitoring/prevention of SIDS. Currently, no products on the market are backed by a research study. To gain credibility and to differentiate ourselves from the competitors Cocoon has decided to get clinical approval before entering the consumer market. This makes it a no brainer for pediatricians, the leading influencers in the space, to recommend our product to a mom who is worried about the safety of her child. For the next 5 years Cocoon will cater to the needs of researchers.

Market Opportunity

The U.S. National Institute of Health (NIH) allocates \$23.8 M in federal funding specifically to SIDS related research projects¹⁸. There are currently funding 129 clinical studies¹. An additional \$49 million in federal funding is allocated towards educational and research programs in the field of Sudden Unexplained Death in Childhood (SUDC)¹¹. Private organizations also allocate grant money for this cause. Together CJSIDS Foundation and First Candle have allocated \$800,000 in grants for SIDS projects¹⁸.

Future Market

Cocoon anticipates expansion in the fifth year. Expansion will take place in the consumer market, and alternative research topics including sleep studies.

Go to Market Strategy

Cocoon will partner with different organizations across the nation such as Boston University, University of Virginia, Boston Children's Hospital, Seattle Children's Hospital, New York University and many more to put together a multi-institutional grant. This nation wide clinical study will allow researchers to work with a larger number of parents helping them amass more data and acquire a larger recurring federal funding.

Competitors

Owlet and Angelcare are the largest competitors in the consumer market.

- Owlet is sock-like monitoring system that the infant is supposed to wear on its feet.
- It monitors heart rate and oxygen levels using a pulse oximeter.
- Angelcare uses a sensor placed underneath the mattress.
- It monitors infant's chest movement due to breathing.

The major drawback of the products on the market is that they go against pediatric recommendation because they compromise the integrity of the sleeping environment for the infant. This increases the likelihood of occurrence of a SIDS event.

Competitive Advantage

- Cocoon's device enables researchers to collect data when the baby is taken home.
- Parents are not confined to NICUs for researchers to gather data.
- Parents can provide data from the comfort of their homes.
- Increases the number of people researchers can get to part-take in this research who were off limits before.
- Cocoon's device does not compromise the integrity of the data collection process.
- Device follows pediatric recommendations.
- Data leading up to the SIDS event is specifically provided
- Saving researchers the hassle of sifting through tons of data.

Pain Points for Researchers

- No way to gather data when parents take their babies home from NICUs³.
- The occurrence of SIDS increases to a peak of 25% more likely between 2 and 3 months of age¹⁶ this results in the events most commonly occurring at home
- No way to gather data around the occurrence of a SIDS event.
- Can't use products on the market as they increase the likelihood of SIDS events.
- Time and resources are dedicated towards making their own instrumentation¹⁰.

Financials

Founders are not being paid for the first two years as they are working part-time and are in school. Initial funding for the project has come from WSU NSF Innovation Corps and the Harold Frank Engineering Entrepreneurship Institute. Additional funding for the first two years will be obtained from National Institute of Health (NIH), Small Business Innovative Research (SBIR), and grants from organizations such as the American SIDS Institute, CJ First Candle, the SUDC Foundation. Over the span of the first two years, an estimate of \$153,000 will be fundraised to cover the startup costs of incorporating our company, developing a working prototype, contracting a manufacturer for production, and other go-to-market costs. We expect to gross \$12 million by the end of year 2021 in revenue. For detailed information on key assumptions and monthly breakdowns please refer to the appendix.

Revenue Model

After obtaining a federal funding, in the year 2020 we will lease 20,000 units to the clinical study at a rate of \$600 per unit. This purchase order will allow us to generate a total revenue of \$12 M starting year 2021. This same model will be followed through year 2024. However, during year 2024 we will expand to additional research groups and begin entering the consumer market.

	2019	2020	2021	2022	2023	2024
Revenue	\$0	\$0	\$12,000,000	\$12,000,000	\$12,000,000	\$15,000,000
Expenditure	\$3,000	\$94,400	\$3,435,726	\$3,385,726	\$3,994,906	\$11,864,906
Net Income	-\$3,000	-\$94,400	\$8,564,274	\$8,614,274	\$8,005,094	\$3,135,094

Traction

Cocoon is in contact with key organizations in the space of SIDS advocacy including National Institute for Children’s Health Quality, Cribs for Kids, Aaron Matthew SIDS Research Guild, and Sudden Unexpected Death in Childhood Foundation. Leading researchers and advocates in the space have been consulted in regards to project development, and expansion. Dr. Michael Corwin and Dr. Carl E. Hunt are both MD PHD researchers who have published multiple studies on SIDS research. Dr. Michael Goodstein is a Neonatology specialist for WellSpan Medical Group, and is the chairman for Cribs for Kids.

References

1. Arias E, MacDorman MF, Strobino DM, Guyer B. Annual summary of vital statistics—2002. *Pediatrics*.2003;112 :1215– 1230
2. Kochanek KD, Murphy SL, Anderson RN, Scott C. Deaths: final data for 2002. *Natl Vital Stat Rep*.2004;53 (5) :1– 115
3. Willinger M, James LS, Catz C. Defining the sudden infant death syndrome (SIDS): deliberations of an expert panel convened by the National Institute of Child Health and Human Development. *Pediatr Pathol*.1991;11 :677– 684
4. Hodgman JE, Hoppenbrouwers T. Home monitoring for the sudden infant death syndrome. The case against. *Ann N Y Acad Sci*.1988;533 :164– 175
5. Ward SL, Keens TG, Chan LS, et al. Sudden infant death syndrome in infants evaluated by apnea programs in California. *Pediatrics*.1986;77 :451– 458
6. Monod N, Plouin P, Sternberg B, et al. Are polygraphic and cardiopneumographic respiratory patterns useful tools for predicting the risk for sudden infant death syndrome? A 10-year study. *Biol Neonate*.1986;50 :147– 153
7. American Academy of Pediatrics, Committee on Fetus and Newborn. Apnea, sudden infant death syndrome, and home monitoring. *Pediatrics*.2003;111 :914– 917
8. Fact.MR. "Fact.MR." Fact.MR, 16 Apr. 2018, www.factmr.com/media-release/462/baby-monitor-market.
9. Weinswig, Deborah. "The Boom of Baby Tech ." Fung Business Intelligence Center , 2015. https://www.fbcgroup.com/sites/default/files/Baby%20Tech%20Report%20by%20FBIC%20Global%20Retail%20Tech%20Dec%202015_0.pdf
- 10 Kattwinkel, J., Fr Hauck, ME Keenan, M. Malloy, and Ry Moon. "The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk." *Pediatrics* 116.5 (2005): 1245-255. Web.
- 11 "Sudden Infant Death Syndrome (SIDS) Pediatric Research and Clinical Trials | Boston Children's Hospital." Boston Childrens Hospital, 2019, www.childrenshospital.org/conditions-and-treatments/conditions/s/sudden-infant-death-syndrome-sids/research-and-clinical-trials.
- 12 "Search of: SIDS - List Results." Home - ClinicalTrials.gov, www.clinicaltrials.gov/ct2/results?term=SIDS.
- 13 "NIH Data Book." National Institutes of Health, U.S. Department of Health and Human Services, 2018, report.nih.gov/nihdatabook/category/4.
- 14 Goldstein, Richard D, Hannah C Kinney, and Marian Willinger. "Sudden Unexpected Death in Fetal Life Through Early Childhood." *Pediatrics* 137.6 (2016): 1. Web.
- 15 Zhu, Zhihua, Liu, Tao, Li, Guangyi, Li, Tong, and Inoue, Yoshio. "Wearable Sensor Systems for Infants." *Sensors (Basel, Switzerland)* 15.2 (2015): 3721-749. Web.
- 16 Centers for Disease Control and Prevention. CDC Wonder. Compressed mortality file: underlying cause-of-death. Mortality for 1979–1998 with ICD 9 codes; Mortality for 1999–2001 with ICD 10 codes. Available at: <http://wonder.cdc.gov/mortSQL.html>. Accessed July 17, 2005
- 17 http://www.idph.state.il.us/sids/sids_factsheet.htm
- 18 <http://www.babywill.org/sids-information/what-is-sids/sids-research>

Income Statement

	Cocoon	Cocoon	Cocoon	Cocoon	Cocoon	Cocoon	Cocoon
	Income Stmt	Income Stmt	Income Stmt	Income Stmt	Income Stmt	Income Stmt	Income Stmt
	Dec 31st 2019	Dec 31st 2020	Dec 31st 2021	Dec 31st 2022	Dec 31st 2023	Dec 31st 2024	
Revenue							
Sales Revenue	\$ -	\$ -	\$12,000,000	\$12,000,000	\$12,000,000	\$15,000,000	
Cost of Goods Sold	\$ -	\$ -	\$3,000,000	\$3,000,000	\$3,000,000	\$3,750,000	
Gross Profit	\$ -	\$ -	\$9,000,000	\$9,000,000	\$9,000,000	\$11,250,000	
Expenses							
Royalty Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Salary Expense	\$ -	\$ -	\$284,000	\$284,000	\$404,000	\$404,000	
Rent Expense	\$ -	\$ -	\$40,000	\$40,000	\$40,000	\$40,000	
FICA Expense (7.65%)	\$ -	\$ -	\$21,726	\$21,726	\$30,906	\$30,906	
Miscellaneous	\$5,000	\$44,400	\$40,000	\$40,000	\$420,000	\$7,540,000	
FDA/Legal Fees	\$ -	\$50,000	\$50,000	\$ -	\$100,000	\$100,000	
Total Expenses	\$5,000	\$94,400	\$435,726	\$385,726	\$994,906	\$8,114,906	
Pretax Income	-\$5,000	-\$94,400	\$8,564,274	\$8,614,274	\$8,005,094	\$3,135,094	
Tax Rate (21%)	21%	21%	21%	21%	21%	21%	
Tax Liability	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	
Net Income	-\$5,000	-\$94,400	\$8,564,274	\$8,614,274	\$8,005,094	\$3,135,094	

Balance Sheet

	Cocoon Balance Sheet Dec 31st 2019	Cocoon Balance Sheet Dec 31st 2020	Cocoon Balance Sheet Dec 31st 2021	Cocoon Balance Sheet Dec 31st 2022	Cocoon Balance Sheet Dec 31st 2023	Cocoon Balance Sheet Dec 31st 2024
Assets						
Cash	\$3,000	\$150,000	\$9,000,000	\$9,000,000	\$9,000,000	\$11,250,000
Inventory	\$200	\$10,000	\$400,000	\$400,000	\$400,000	\$500,000
PrePaid Rent	\$ -	\$ -	\$40,000	\$40,000	\$40,000	\$40,000
Total Assets	\$3,200	\$160,000	\$9,440,000	\$9,440,000	\$9,440,000	\$11,790,000
Liabilites						
FICA Tax Payment	\$ -	\$ -	\$21,726	\$21,726	\$30,906	\$30,906
Salaries Payable	\$ -	\$ -	\$284,000	\$284,000	\$404,000	\$404,000
Income Tax Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Liabilites and S/E	\$0	\$0	\$305,726	\$305,726	\$434,906	\$434,906

Cash Flow

	Cocoon	Cocoon	Cocoon	Cocoon	Cocoon	Cocoon	Cocoon
	Stmt Cash Flow	Stmt Cash Flow	Stmt Cash Flow	Stmt Cash Flow	Stmt Cash Flow	Stmt Cash Flow	Stmt Cash Flow
	Dec 31st 2019	Dec 31st 2020	Dec 31st 2021	Dec 31st 2022	Dec 31st 2023	Dec 31st 2024	
Operating Activites							
Receipt for Customers	\$ -	\$ -	\$12,000,000	\$12,000,000	\$12,000,000	\$15,000,000	
Cost of Goods Sold	\$ -	\$ -	-\$1,000,000	-\$1,000,000	-\$1,000,000	-\$1,250,000	
Payment to Manufacturer	\$ -	\$ -	-\$2,000,000	-\$2,000,000	-\$2,000,000	-\$2,500,000	
Royalty Payment to WSU	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Salaries Paid to Employees	\$ -	\$ -	-\$284,000	-\$284,000	-\$404,000	-\$404,000	
Payment to Landlord	\$ -	\$ -	-\$40,000	-\$40,000	-\$40,000	-\$40,000	
Payroll Taxes	\$ -	\$ -	-\$21,726	-\$21,726	-\$30,906	-\$30,906	
Miscallaneous Expenditures	-\$3,000	-\$94,600	-\$90,000	-\$40,000	-\$520,000	-\$7,640,000	
Net CF from Operating Activities	-\$3,000	-\$94,600	\$8,564,274	\$8,614,274	\$8,005,094	\$3,135,094	
Net Charge in Cash	-\$3,000	-\$94,600	\$8,564,274	\$8,614,274	\$8,005,094	\$3,135,094	
Begin Cash	\$ -	-\$3,000	-\$97,600	\$8,466,674	\$17,080,948	\$25,086,042	
End Cash	-\$3,000	-\$97,600	\$8,466,674	\$17,080,948	\$25,086,042	\$28,221,136	