

Me Time

A CONNECTED WORK FROM HOME EXPERIENCE

Then

Priya: 9-5 employee

Now

Priya: - 24x7 employee

- Mother
- Wife
- Daughter-in-law

Introduction

If you don't run the day, the day runs you

Before COVID-19 hit, the option of working from home was available to only some high-end businesses. That percentage has increased now more than ever. Remote work is on the rise now and is only becoming mainstream. The pandemic has propelled a majority of organizations globally to switch to working from home while maintaining a limited number of employees coming to offices. This has left a majority trying to pull through with makeshift arrangements and compromises.

Working from home isn't easy, even for those who have been doing it for years. There are a lot of parameters to look at, such as, distractions, from chores to pets to families. It's also difficult to develop, and stick to, a new routine. Collaborating with coworkers is another issue altogether. There is no longer talking face to face and there are no more casual lunchroom conversations. Working from home can be lonely and depressing.

Working mothers in particular have been facing a plethora of challenges that come with working from home. At work she is an employee, however when working from home she is juggling between the identities of a wife, daughter-in-law and mother all while trying to do her best on the job. With the minimized demand of jobs in the market and organizations going out of business

There are bandwidth issues and children yelling in the background which could lead to embarassment and frustration. Working from personal space will eventually reduce direct interactions among colleagues even though there are regular zoom calls, the feeling of personally being there cannot be changed. It is also very easy for employees to get distracted due to a lot of external factors which makes it difficult for employees to get the work done. Therefore, it is essential to think about ways that would benefit people to work peacefully while at home, be productive and get work done.

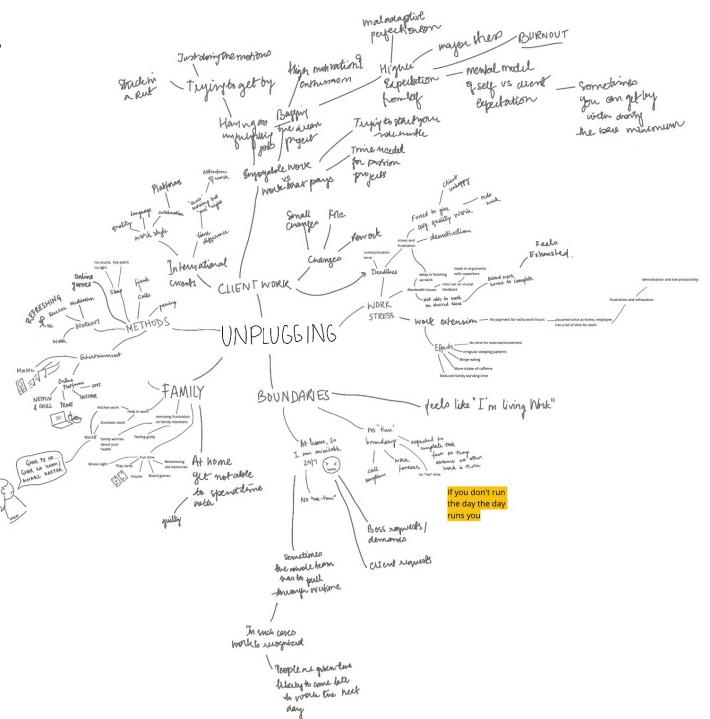
Brainstorming

Problem Area

THEME: WORK FROM HOME

PROBLEM AREA: **UNPLUGGING FROM WORK**

AUDIENCE: WORKING MOTHERS WITH CHILDREN AGED 6-9 YEARS



"We expect women to work like they don't have children and raise children as if they don't have work"

Secondary Research

WORK LIFE BALANCE IN THE PANDEMIC

Mothers continue to bear caregiving duties in addition to their professional commitments. Therefore, the situation hits women the hardest. They have been struggling to maintain a balance between their professional and personal lives in the home around their children all the time. The survey report shows that working mothers are the most to bear the brunt of distractions from childcare while men seek support from their family and friends. The survey results also reveal that more than 48% of working mothers report working late to compensate for work, while 43% of mothers unable to concentrate on working at home with their children.

DIVIDED SPACES, SINGULAR FOCUS

Having the designated space for office and home meant being in a distraction free environment that is conducive to the task at hand, whether it be working or helping with homework. The current WFH situation has led to blurry lines between the two. There is an expectation to be available all the time for work commitments since people are "at home" and have "nothing else to do". However family obligations have increased more than ever, and the mother's constant presence at home demands for attention by the family. Working mothers have suddenly found themselves trying to finish complex work tasks, home-schooling their children, and fulfilling house responsibilities - all at once. The "invisible work" of parenting as well as housework, is disproportionately taken care of by the mother.

GENDER BIAS AT WORK, WFH AS A DISADVANTAGE TO WORKING MOTHERS

Working from home for mothers means that they would be left out of some crucial conversations that are informal in nature. Women would hence be limited to the official channels of communication. On the other hand employees who have the privilege to visit the office would be a part of the informal and casual engagement that occurs across hierarchies. Even in work environments that have no WFH component, women find it harder to get the career benefits that come with being in easy contact with mostly male decision makers. There is a possibility of WFH accelerating this underlying inequality by further reducing opportunities for face-to-face networking. The informal but essential coaching that might happen after a key meeting or a big pitch, are crucial for building a strong path forward. Virtual meetings on Zoom do not afford the same rapport-building and feedback mechanisms. With this being said there is a possibility of constructive informal feedback (essential to the learning process), becoming an even-more-gendered activity.

Fighting the internal battle of doing the best as an employee, a wife, a daughter and most importantly a mother can be overwhelmingly exhausting.

Research Findings, Gaps and Analysis

Trying to strike a balance between progressing career wise and nurturing the family is seen to be difficult for most mothers. Mothers especially with young children find it difficult to devote the required attention to them with the constant juggling of work and family. With the pandemic making major shifts in the way that organizations operate, working from home is now to be embraced as the new normal. Work from home (WFH), already comes with its own set of hiccups for most employees, for Indian mothers the problems are amplified multifold. Not only does the mother have to work and cater to the family, now she has to make sure to get it done without the luxury of distinct boundaries of the workplace and home.

Getting the family to adjust to their mother, wife or daughter-in-law to not act and do the duties like one, while she is at home is a challenge to be overcome. Furthermore, the family's response to the space and acknowledgement they give to her work is subjective to their perceived value and importance they have for her as an employee. Fathers go to work, their child identifies them with it. Mothers take care of their child, and that is her primary identity to the people at home. Ironically, organizations overlook this crucial segment and make women with children conform to the standards of the predominantly male workforce.

Fighting the internal battle of doing the best as an employee, a wife, a daughter and most importantly a mother can be overwhelmingly exhausting. Moreover, venting out may also not be an option for many owing to the lack of a support system, perpetual guilt and the already existing stigma around mental health in our country. To aggravate this further, owing up to struggles with mental health is a

decision to be made, since this was her "duty" in the first place. For others being oblivious of deteriorating mental health or trivializing the reality of her struggles is part of the denial. Such dichotomous monologues can be extremely isolating for when she needs it the most.

INSIGHTS:

Secondary Research

Motherly duties and being the primary caregiver

Her role as a mother is **taken for granted** as she is always available to cater to the child's needs and wants. The "**umbilical connection**" is assumed as that as the **primary caregiver** (the mother is ideally best suited to comprehend her child's needs and can interpret and respond to those needs intuitively).

Spending quality time with her child

She feels the **need to compensate** for the times she is busy as she feels guilty of not spending enough time with them. Too **exhausted** by the end of day **to cultivate meaningful bonds** with her child

Childs right to seek for her attention

The child (and the family) does not understand the **seriousness** of their mother's work as they have **never seen her operate** in that area of life. The child feels it is their right to seek for their mother's attention since they **cannot grasp the concept** of their mother not doing her **motherly duties**.

Target Audience

Mothers with children aged 6-9 years (urban nuclear family)

Scenario - Working Mother

Priya transitioned to working from home and has to now do the house work along with taking care of her child's school and studies. She also handles her office work simultaneously which results in frustration and health issues as she has to juggle her tasks and yet be calm.

Primary Research

Camera Study

Observing the users and their environment was critical in understanding the problems they face. We observed that most mothers would work in a common area as they did not have a designated workspace. They had utilised their dining table or living room as their work environment. We also noticed the objects they had in their surroundings along with their child's belongings and toys.



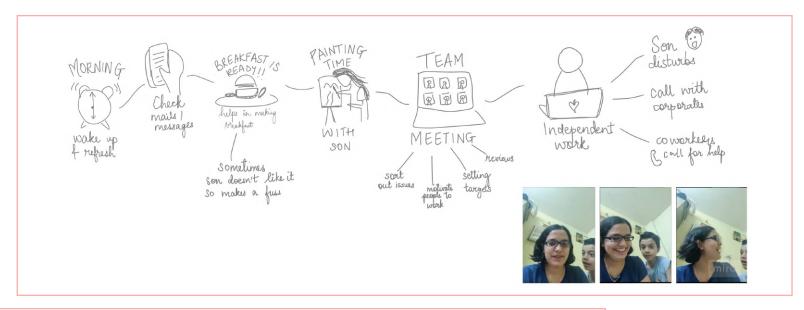


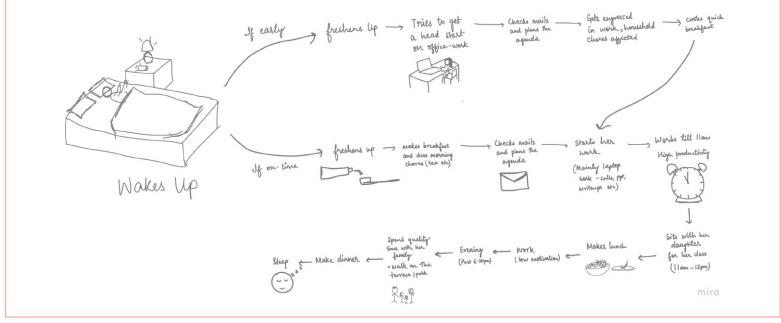






User Journeys





User Interviews

THEME: WORK FROM HOME

PROBLEM AREA: **UNPLUGGING FROM WORK**

AUDIENCE: WORKING MOTHERS IN A NUCLEAR FAMILY WITH CHILDREN AGED 6-9 YEARS

YOU ARE ALWAYS RUNNING ... ONE TASK AFTER ANOTHER temace walks herself gpend evenings prelance with her work family (NOT HARDERING) 40 for a west nep WANT TO WORK the effort put in FROM OFFICE crazer toke · Timeline - when I 5 1 W Leave office, I dont 00 0 work at home. No disturbances - wids, office doesn't Meet & collaborate of no mary for her dild's · Motivate each other Asymmetric working WORK happening No timeline A DIFFERENT Tries guilty rother work missing out on child's crucial to work call/mail carly according me anytime not spending Boundaries time with family other activities schedule Has become a very dynamic Lay-offs weeps disturbing (No Boundaries work hard "GHAR PEHI to keep the TOH HO! " I need to work .. child's Housecheres homework sure Ne are floating ...

USER: Shifted to WFH due to COVID

WORK: Consultant & Writer

Scheduled work hours: 9/10 am to 12/1pm

USER: Shifted to WFH due to COVID

WORK: Professor

Scheduled work hours: 8/9 am to 3/4pm



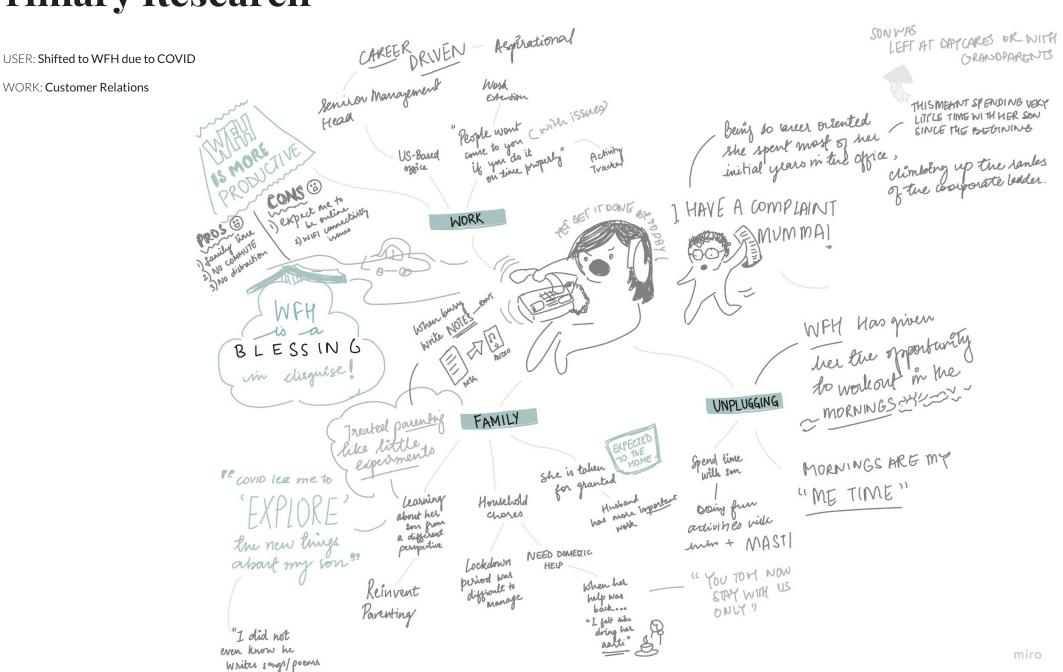
3. Brown bag session . therapire zoon call - interactive

employees are feeling

. When speakers







Primary Research

User Insights

User 1 (Consultant & writer) schedule day according to family Has class for 1 hr and wants to devote her full time and attention for that period feel guilty for not spending time with her.. its her crucial years to learn and i'm not able to help her

impromptu work has increased

No Boundaries

User 2 (Professor) When at home, guilt of not being able to help/contribute is more Feels bad for her family people being adjusting and being understanding of her work

Even though at home, peaceful cuddles with the kid in the morning is disturbed Makes time for a lot of different activities with her daughter, probably because she feels the need to compensate for when she was busy

Since she's around her daughter all the time, the guilt of not of spending time with her hangs over her head

User 3 (money/taxes fraud detection) Heavily dependent on domestic help

Hectic schedule results in mental fatigue "wfh would be perfect with my maid, since things are very comfortable" Getting to be a part of her daughter's daily life more now as compared to earlier when she came back from work at night

Always used to think about her daughter at work When she needs attention, she goes and peeps into morns and dads work, which results in her getting yelled at and she silently goes back and sits

User 4 (Director & Organiser) For own satisfaction, someone has to sit with the child to ensure work gets done

MONITORING

Moms with help have a more structured day and can treat it like "work"

When the mom is at home, the child has an expectation from her

She's the one who brought her work at home, which is his space, not used to seeing his mother that way When at home, guilt of not being able to help/contribute is more felt less guilty when she was in the office

Feels guilty for not being of much help when it comes to housework, her family manages it

User 5 (customer relations)

Figured out creative ways of bonding with her child even in her physical absence Feels wfh is more productive as she can opt out of futile/unnecessary interactions with employees

Dad's work is seemed to be more serious than mom's work (both have similar posts in their respective careers)

A mother's work is always taken for granted Her child feels it his right to seek for her attention even if she's working/in meetings

Consultan & writer

User 2: Professo

User 3: Fraud detection

User 4: Director/ Organiser Customer Relations

Behavioural Insights

CHILD SEEKING ATTENTION

When she needs attention she goes and peeps into moms and dads work, which results in her getting yelled at and she silently goes back and sits

Figured out

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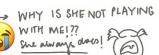
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- O Wild tends to distrib when working
- O unable to grasp the someget of their mon (who usually caters to min needs on rollim) not growing them attention where they're working

PRE LOCK DOWN

MOM - PLAYS WITH ME

POST LOUKDOWN



MOTHER'S ROLE IS TAKEN FOR GRANTED

Dad's work is seemed to be more serious than mom's work (both have similar posts in their respective careers)

Mom helps me with my work. Dad just does his own work.

Mom is MINE. Dad is just there



Experted to be available 24 x7

Eg. when to unicasonable demands out oda times

GUILT OF NOT PARTICIPATING IN FAMILY WORK

Moms with help have a more structured day and can treat it like "work "

When at home guilt of not being able to help/contribute is more

felt less

family people being adjusting and being understanding of her work

guilty when she was in the office Feels guilty for not Feels bad for her

being of much help when it comes to housework her family manages it

DEPENDENCE ON DOMESTIC HELP

Heavily dependent on domestic help

"wfh would be perfect with my maid, since things are very comfortable"

CHILD'S SCHOOLING

MONITORING

Has class for 1 hr and wants to devote her full time and attention for that

feel guilty for not spending time with her.. its her crucial years to learn and i'm not able to help her

For own satisfaction. someone has to sit with the child to ensure work gets done

WORK

BONDING WITH THEIR KID

Getting to be a part of her daughter's daily life more now as compared to earlier when she came back from work at night

Always used to think about

her daughter

at work

of different activities with her daughter, probably because she feels the need to compensate for when she was busy

Makes time for a lot

Since she's around her daughter all the time, the guilt of not of spending time

Even though at home, peaceful cuddles with the kid in the morning is disturbed



O At nome, sees her child 24x7 how 76T not able to spend time with them

Health related

Hectic schedule results in mental fatigue

personal and

professional life

D

When working from home, no hard boundaries make it harder to differentiate

increases mental stress

Increase in

impromptu work

reduces physical

movement and



Schedule

work is interdependent on her family

Productivity

Feels wfh is more productive as she can opt out of futile/unnecessary interactions with employees

User Research Insights

Primary Research

Guilty of not being able to give it their all in all areas of life

Being at home, mothers are habituated to cook food, clean the house, help the child with his/her work, and give some time to herself.

Due to the work from home transition, workload of work has increased which takes up most of her time. This in turn, reduces her time to give her time to other aspects of the house work which makes her feel guilty for being at home, yet not being able to give adequate time to the other work at home.

Society judgement: career vs family priority

Mothers are supposed to be with the child throughout his development regardless of her other responsibilities. "Good" mothers are not only supposed to be physically at home with her child, but also should be spending "quality time" with them to ensure their "proper" growth.

Due to this ideology, societal norms assume women are "at home" and "not working" because they are supposed to prioritize family and children above earning income and advancing in a career.

Family not understanding the seriousness of her work

Working mothers are supposed to be a "supermom." They should be able to switch effortlessly from being a career woman to a homemaker without sacrificing job or children.

Whenever moms are at home, it is a default assumption for the family that she can be disturbed. The mom has brought her work into the house which is not understood and taken seriously by the family. She is expected to still do all the house chores and cook food like she would before going to office and after coming from office.

At home but not being available for her family

Even though she is at home and her child is right next to her, she is still busy fixing her last minute report or attending a meeting or working on a deadline. This makes her feel guilty about the fact that she is at home but is not being able to devote her 100% time to her family and especially, her child.

Since moms are at home, the office tends to give more work assuming they have more time and at home, the child expects mom to give him the attention he needs because she is infront of him.

Problem Statement

Mothers with children aged 6-9 years want to not feel **guilty** for sacrificing work over their family and vice versa by **setting up clear boundaries** with their family that are **acknowledged** and **respected**.

Value Proposition

INSIGHT

- 1. Guilt of not being able to give 100% in all areas of life
- 2. Society judgement: career vs family priority
- 3. People in house not understanding the seriousness of her work as they have never seen her operate in the work area of her life

USER FEELING

Their personal space and role is acknowledged

Clarity and focus on the task at hand

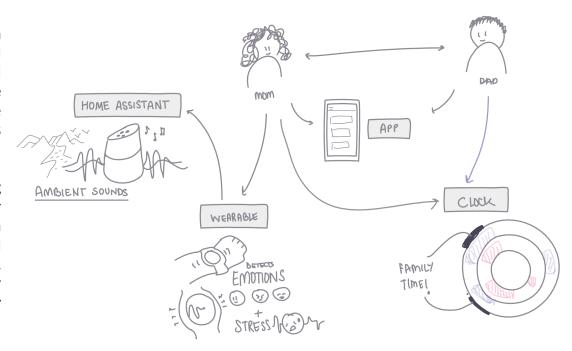
Solution Intervention

What is the concept?

A systemic solution that helps working from home mothers realize that they have the power to make time for their family and themselves while also making the family empathetic and respecting of her situation

"Me Time" is a solution for working from home mothers that helps them realize that they have the power to make time for their family and themselves. It does so by helping the family be empathetic and respecting of her situation which lifts the burden off of her, so that she can pay heed to her mental wellbeing. This is a connected experience that uses the power of the Internet of Things (IoT) to connect the various nodes of the solution.

The solution connects the mom and dad via an app that is used to log their schedules. The mother has a smart watch that monitors her emotions and stress levels throughout the day to provide her with insights in accordance to her daily activities. It also helps her pause and reflect to destress and regulate her emotions via a home assistant. Finally a wall clock visualizes the mom's and dad's schedules for establishing boundaries and looking for opportunities to spend quality time with the family.

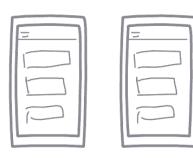


Solution Intervention

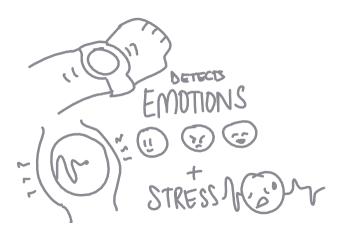
4 Essential Nodes in the system



The solution connects the mom and dad via an app that is used to log their schedules. Existing schedules they may have on other platforms (Google calendar, outlook etc) can be synced with the app. The mom and dad's tasks are tagged as self, home, work and family. Home and Family task lists are collaborative in nature, which encourages the dad to participate in chores and doing things for the child. The mom is also prompted to input her "Priority Task" for the day.







The mother has a smart watch that monitors her emotions and stress levels throughout the day to provide her with insights in accordance to her daily activities. For this purpose the Empatica Embrace Plus has been chosen as it meets all the sensor criteria for continuous biometric tracking. The biometric sensors of the watch track the Heart Rate Variability (HRV), Skin Temperature (ST) and Electrodermal Activity (EDA) to synthesize the physiological signals into a tangible emotion and stress levels at a given time. When the emotion or stress levels go beyond the calibrated baseline, a cue is given to the mother to pause and destress through a meditative session. The emotions detected are happiness, sadness, anger and the neutral state. The working and algorithm logic has been explained in the additional document provided. The mother's emotion and stress data determines the actions taken by the other nodes. These eventually have a different effect on the different stakeholders.

Solution Intervention

4 Essential Nodes in the system

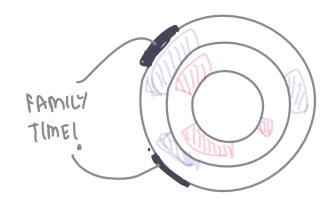




Existing home assistants (Google/Alexa) that people have could be synched with the system. The home assistant is triggered to play a playlist of soothing sounds (rain, ocean waves, cafe ambience etc.) based on how the mother is feeling at the moment. This is triggered to help her destress and regulate her emotions.



A wall clock (centrepiece) visualizes the mom's and dad's schedules for establishing boundaries and looking for opportunities to spend quality time with the family. The clock is designed to be analogue to complement the Indian household decor. This centrepiece is placed in the dining/ drawing room where all family members can access it. The product intends to show the people in the family the opportunity to spend time together and instills anticipation.



System Architecture

System Architecture consists of 6 layers: Scenario, Task Flow, Data Points, Tech Plan and Working, Artefacts and Design Approaches. All these layers are inter-dependent.

User Scenarios

User scenarios are stories which are created to show how users might act to achieve a goal in a system or environment. Scenarios are made to understand users' motivations, needs, barriers and more in the context of how they would use a design, and to help ideate, iterate and test optimal solutions. It helped us visualizing the actual current senario and the breakdown of the problems that are occuring in that scenarios.

Task Flow

Task flow is a series of steps that users complete for doing a specific task. Task flows are generally linear without multiple branches or paths. It helps to understand the inter connections within the system and how the user will actually use and interact with the system.

Data Points

Data points are the nodes which are identified to see what data was being sensed and captured in order for the decision to occur.

Tech Plan and working

Tech plan is the process of planning the technical evolution of a system to achieve its future vision or end-state. The feasibility of the system and products is tested in this stage. Low fidelity and high fidelity working prototypes were created to test the system and record the results.

Artefacts

Artefacts are products that are essential to run and complete the system. Some existing products were taken into considerations while some products were newly designed as per the user needs.

Design Approach

Design Approach in the end helped us identify the area of design the solution is pertaining and what aspects is it solving. In our case we have used multiple design approaches to build a holistic experience for users.

System Architecture

Layer 1: Scenario

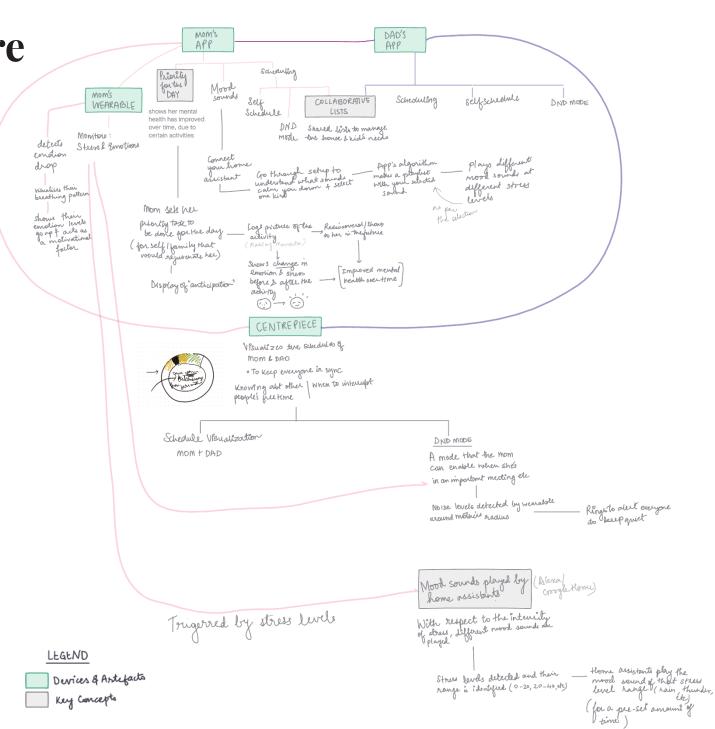




System Architecture

Layer 2: Task Flow

The task flow gives an overall idea about the solution. Mom and dad are connected via an app which gives them an insight about their work schedules and work structure. Mom's wearable monitors stress and emotions while the centerpiece visualises the mom and dad's data. Task flow shows the interconnections and the flow of information.



System Architecture

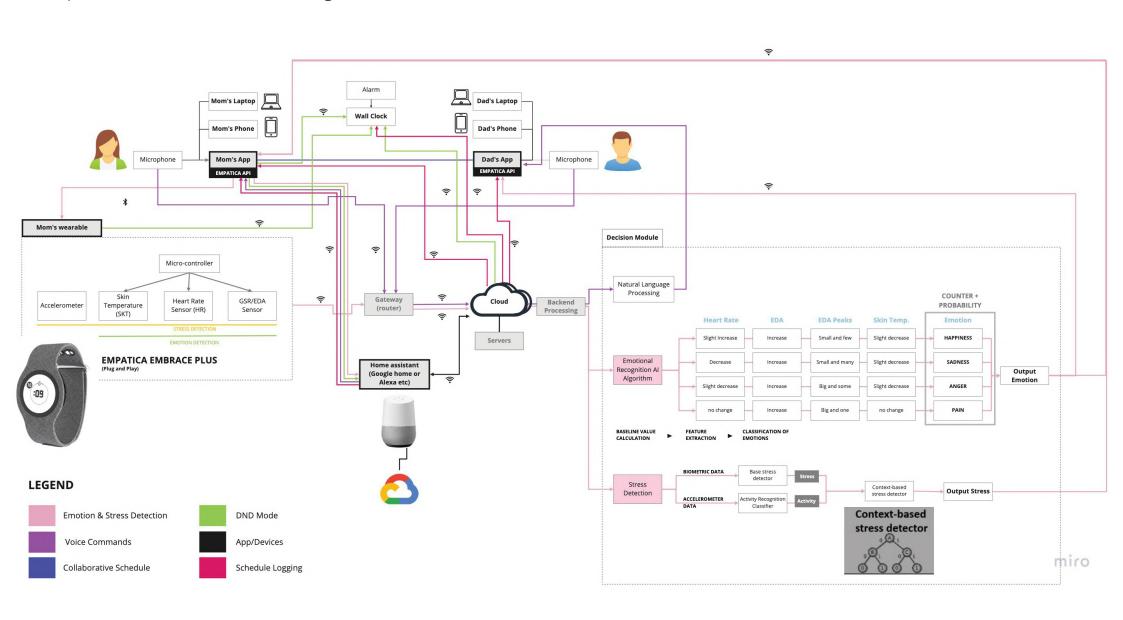
Layer 3: Data Points

The data points were divided into understanding the sense, data and decision from the product's point of view. For eg: the product is sensing the increase/ decrease in the heart rate of the person and is sending the data to heart variability and along with skin temperature sensor and EDA sensor it takes a decision of whether to activate the DND mode.

Sense	Data	Decision	
Deviation from baseline heart rate (increase/decrease)	Heart Rate Variability	 Mother's POV: 1. DND mode (activated when detects anger+stress) 	
Change in body temperature	Skin temperature	2. Takes corrective action	
Sweat conductance valence/intensity (number of peaks)	Electrodermal Activity	 Dad's POV To take over mother's task and shift the burden 	
Speech recognition	Voice	To make a schedule data entry	
Intensity of stress levels	Heart Rate Variability+EDA	1, Mood sounds played according to the stress levels 2. Mood sounds played at Specific times (Customise timing to play sound)	

System Architecture

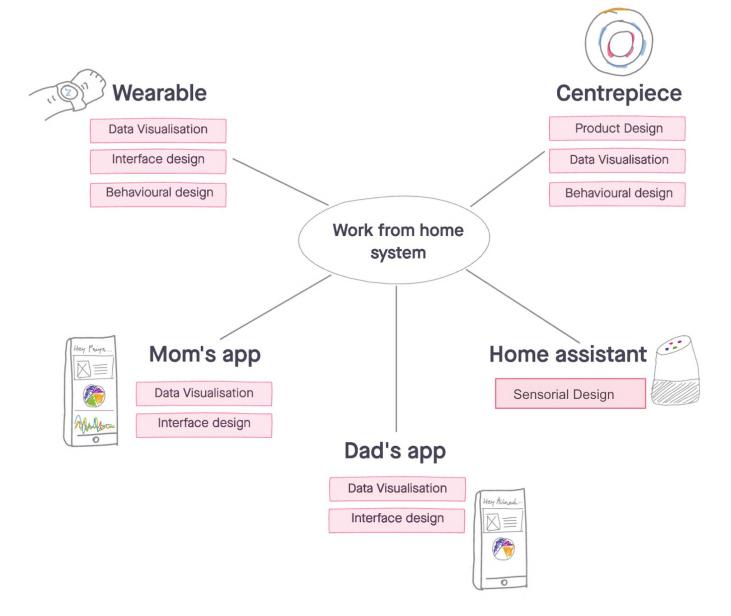
Layer 4: Tech Plan and working



System Architecture

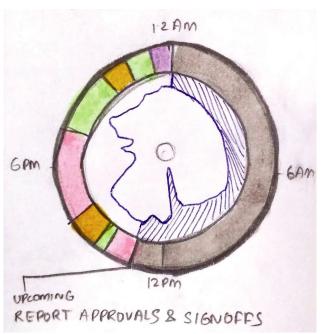
Layer 5: Artefacts and Design Approaches

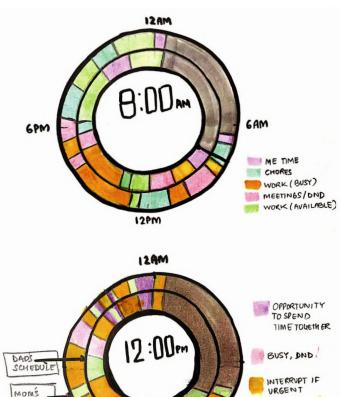
Different design approaches and modules were looked at and used in the ideation for the final solution products: Wearable, centrepiece, mom and dad's app and mom's wearable.



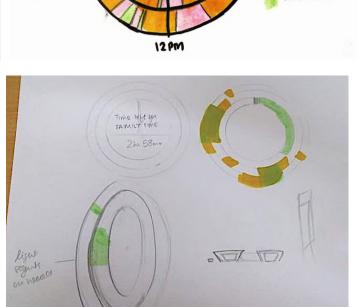
Product Design

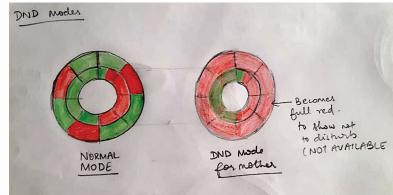
Low Fidelity Sketches

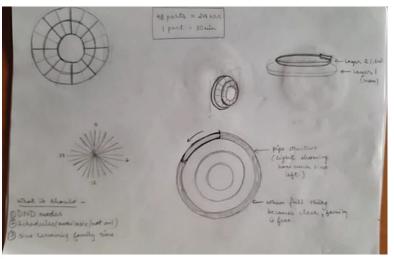


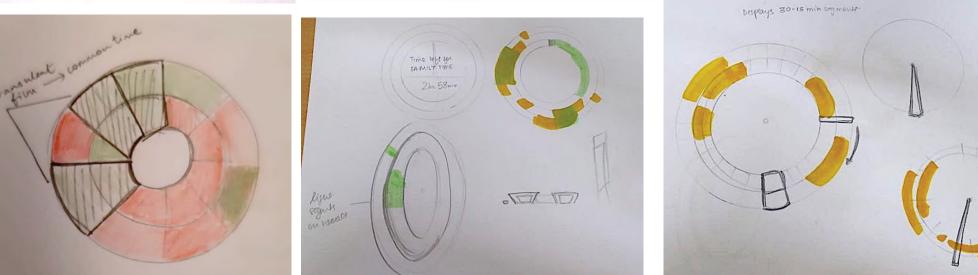










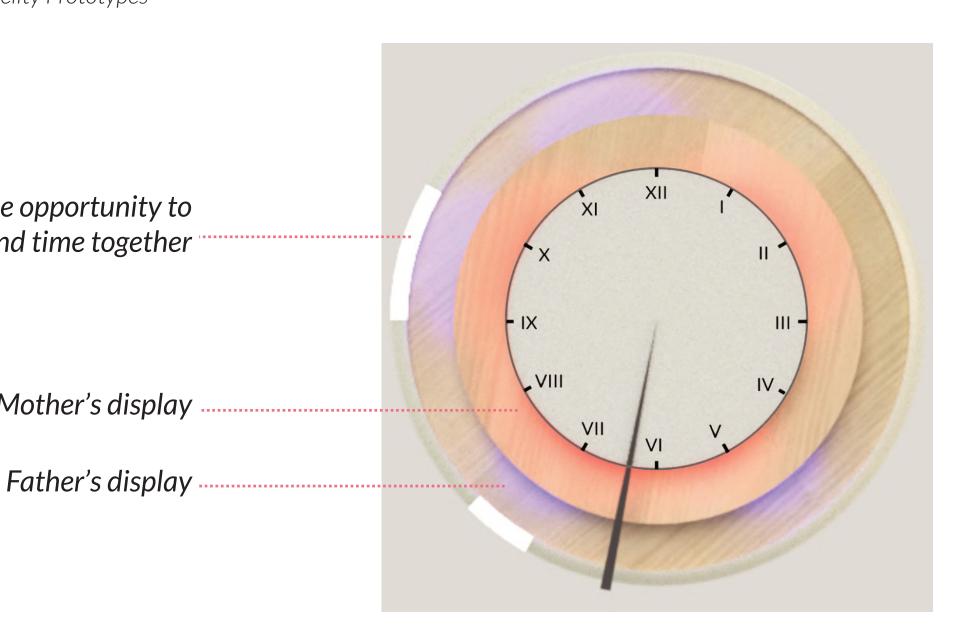


Product Design

High Fidelity Prototypes

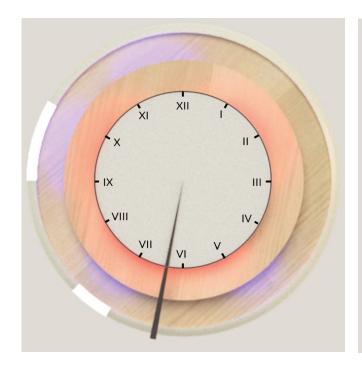
The opportunity to spend time together

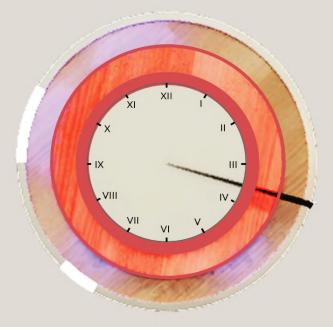
Mother's display



Product Design

High Fidelity Prototypes



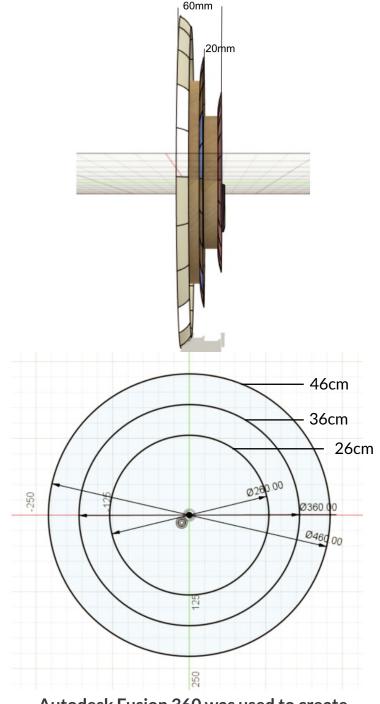


NORMAL MODE

The inner circle (pink) corresponds to the mother's schedule and the middle circle (blue) plos the father's schedule. The outermost shedule shows the time which are opportunities to spend quality time together as the whole family is available at that time.

DND MODE

Through the app, the mother enables a do not disturb mode that alerts all the family members on their respective devices as well as the clock for the child. On the clock, the mother's circle becomes red to indicate she is not available.

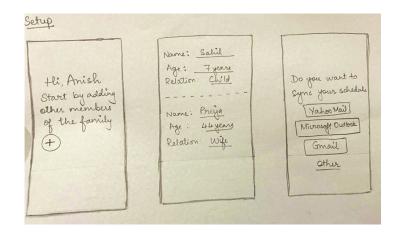


Autodesk Fusion 360 was used to create the models

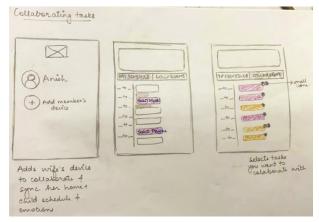


Interface Design - App

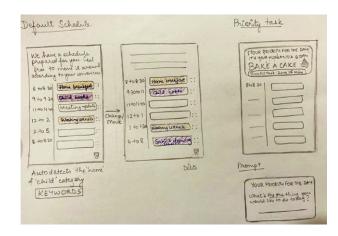
Low Fidelity Sketches



The setup process is quite intuitive and relatable. The user can sync with the other family member's app and collaborate tasks. The base schedule can be added from google calender or any other existing apps the user uses to reduce the effort of adding each entry manually.



For the husband, he can add his wife's device and collaborate with her tasks, so that they both can spend time together and the husband acknowledges the fact that the wife is too tired and hence can pitch in to help her. He selects tasks that he can collaborate with.

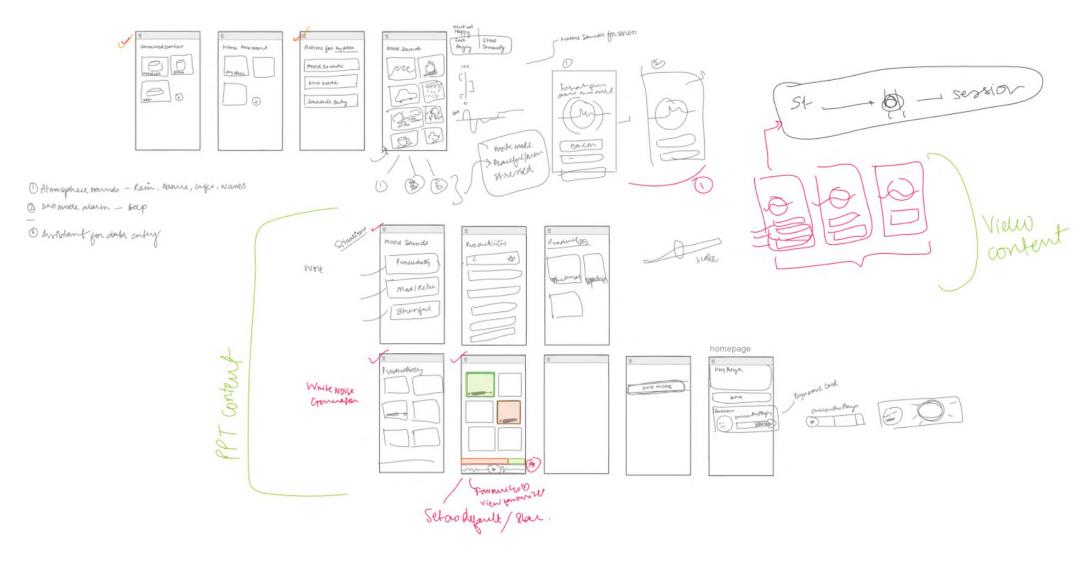


The mother has to input her daily house chores, the child's schedule and other data. Once the data is added, a schedule is made. It autodetetcs keywords to reduce user's task of inputing entries. Priority task for everyday is added.

Interface Design - App

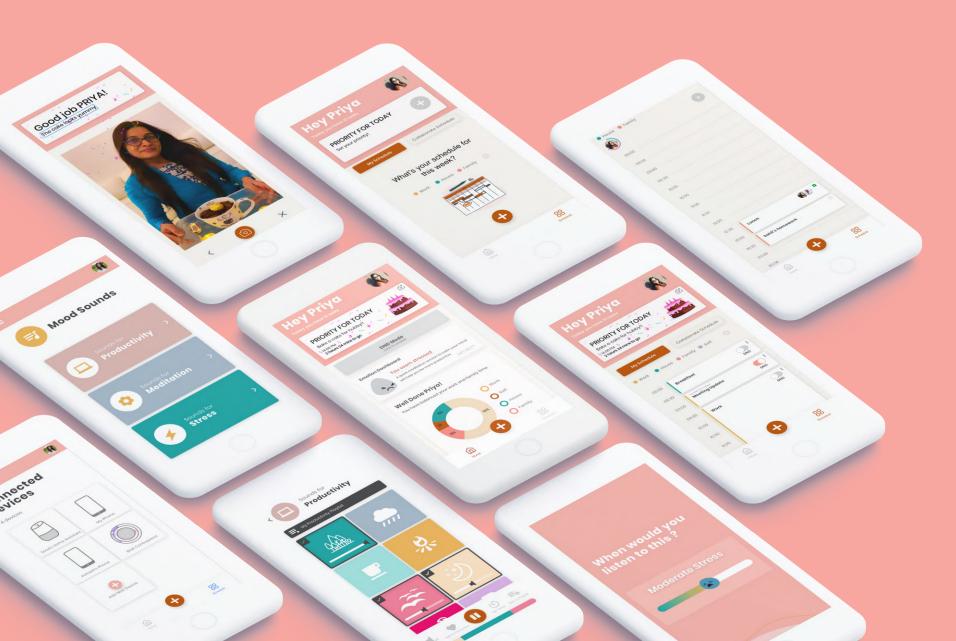
Low Fidelity Prototypes

Google Home assistant node with mood music



Interface Design - App

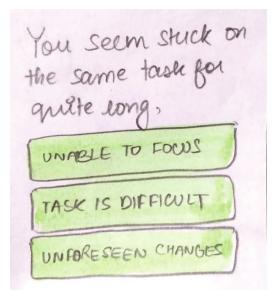
High Fidelity Prototypes



Interface Design - Wearable

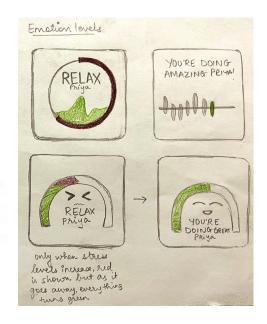
Low Fidelity Sketches

Various visualisations were tried to understand the best way to show the mther's data on tee wearable which would also be incorporated in the app.









Interface Design - Wearable

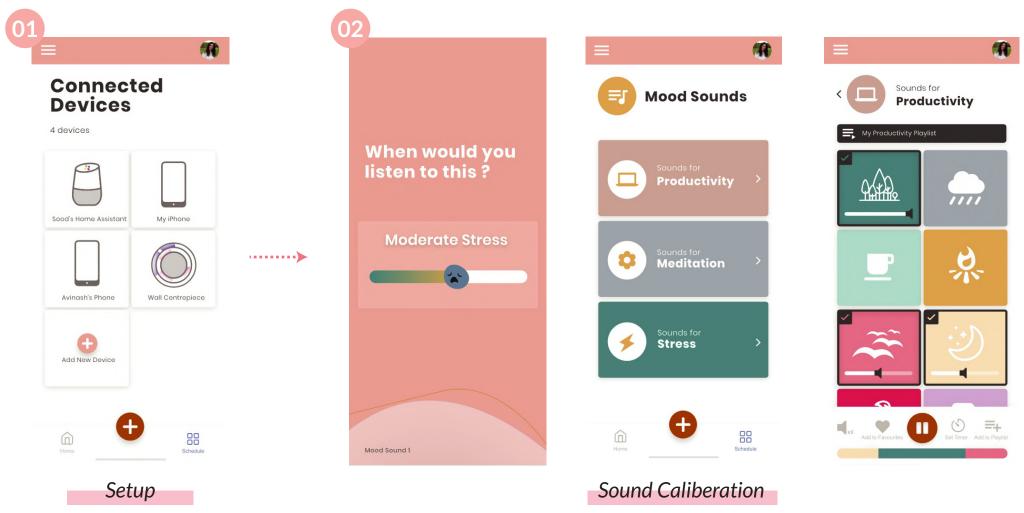
High Fidelity Prototypes





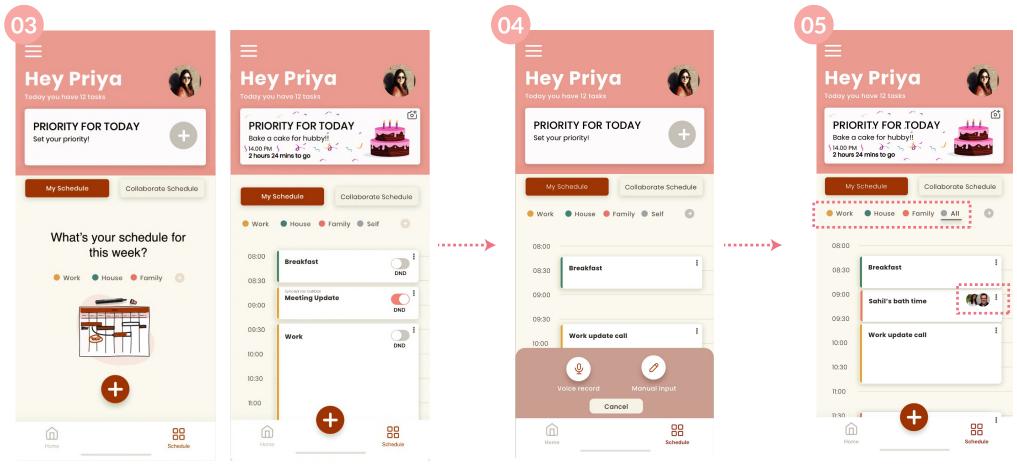






When the app is first installed, it needs to be synced with all the devices and other member's apps.

A series of different ambient sounds are played in the beginning and the mother must select the stress level, she feels each sound corresponds to. This calibration helps the ailearn her preferences, for the home assistant to play them when required.



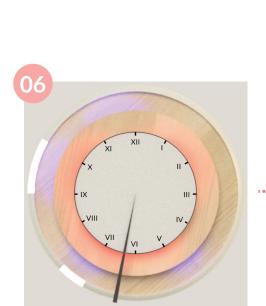
Schedule

On the app the mother is able to enter her schedule that is constant for a period of time. It also syncs up with her personal to do lists, agendas and project management softwares to log her schedule.

She can choose to input deviations in her day to day activities via the voice assistant or manually.

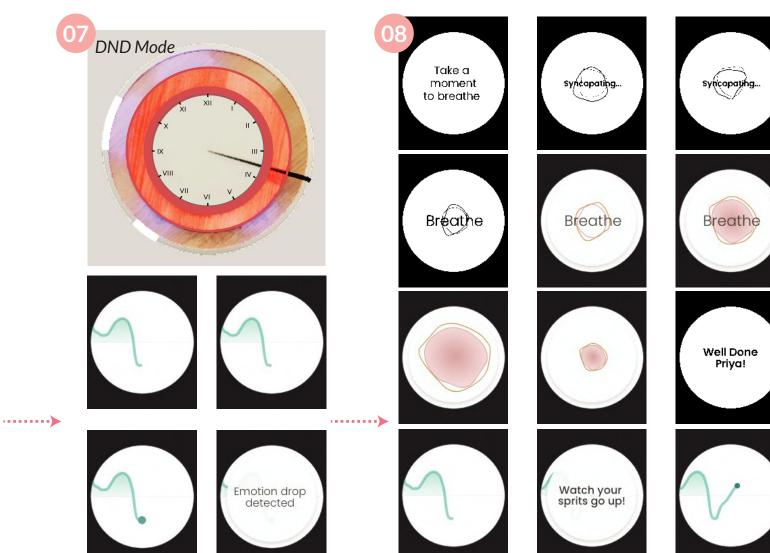
The tasks are categorized according to work, self family and home. She can collaborate with her husband on the home and family tasks.





Wall Centrepiece

The clock visualizes the mom and dads schedules showing the times that they are available or spending with the family.



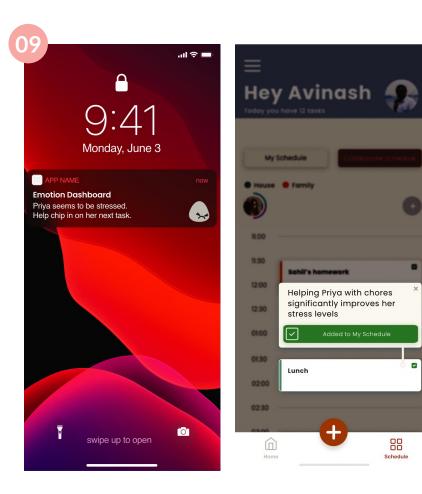
Stress Detetion

The wearable detects when the mom's stress levels are high and automatically triggers the do not disturb mode that is represented by the mom's ring turning red on the clock centrepiece.

Guided Relaxation

The wearable alerts her, when her emotion or stress levels drop, and syncopates to her heartbeat for guided relaxation. The watch vibrates to provide a haptic feedback and the home assistant is triggered to play soothing sounds.







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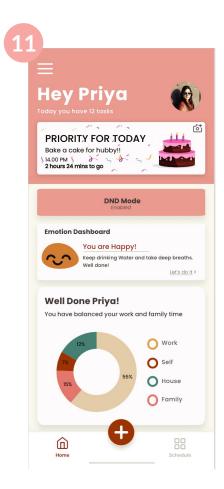
Husband Alerted

Meanwhile the father too is alerted. Here the app nudges him to help the mother out with some tasks based on his availability. Hurray! Priya's now got an hour of free time.

Priority Task

Everyday, the mother can choose to set one important priority that enables her to spend quality me time or family time. It makes her feel accomplished in a day. She can also capture the memory as she completes it





Emotion Dashboard

She can view how she's done at the end of the day which further increases her sense of accomplishment.

As we see better management and understanding within the family lifts the burden off of priya allowing her to spend more time with her family.

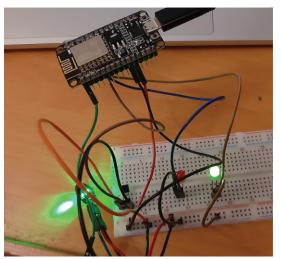
Working Prototype

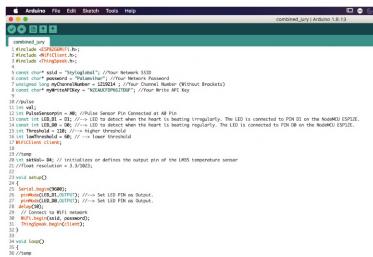
Using NodeMCU and Sensors

A low-fidelity prototype was worked upon using a NodeMCU board, heart rate sensor and LM 35 temperature sensor. The data was then observed and uploaded on thingspeak to get a constant data visualisation of the heart rate and skin temperature values. To indicate to the user if she is stressed or no, "you are stressed" is displayed on the screen and a led indication is also provided if the user does not see the screen.

HOW IS THE EMOTIONAL WELL-BEING OF THE MOTHER TRACKED?

Sympathetic activation increases when you experience excitement or stress whether physical, emotional, or cognitive. The skin is the only organ that is purely innervated by the sympathetic nervous system. Changes in heart rate (the time between the peak of each heart beat) occur as a result from both sympathetic and parasympathetic activation. Estimates of parasympathetic nervous system activation or vagal tone can be made by extracting the high frequency component of this heart rate variability.





MAN 100

Skt temp & Heart Rate

Skt temp & Heart Rate

14:30

Date

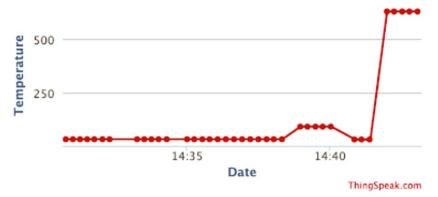
14:35

14:40

ThingSpeak.com

14:20

14:25



21:17:21.890 -> You are stressed
21:17:22.845 -> in Degree Celsius= 24.49
21:17:22.878 -> Pulse Sensor value=
21:17:22.924 -> 30
21:17:22.924 -> You are stressed
21:17:23.837 -> in Degree Celsius= 30.94
21:17:23.874 -> Pulse Sensor value=
21:17:23.910 -> 82
21:17:24.864 -> in Degree Celsius= 30.62
21:17:24.864 -> Pulse Sensor value=
21:17:24.910 -> 83
21:17:25.866 -> in Degree Celsius= 30.62
21:17:25.866 -> Pulse Sensor value=

Business Viability



WEARABLE	Market Share	Electrodermal Activity	Skin Temperature	Heart Rate Variability	Display	Price
Fitbit Sense	3%	(No continuous sensing)	Ø	(No continuous sensing)	Ø	34,500 INR
Xiaomi, MI Band 5	14%	8	8	8		2,500 INR
Apple watch series 6	29.3%	8	Ø	(No continuous sensing)	Ø	41,000 INR
Huawei, GT 2e	11.1%	8	8	(No continuous sensing)	8	11,990 INF
Samsung Watch 3	11.9%	8	8	(No continuous sensing)		38,990 INF
Empatica Embrace Plus	Not released	Ø	Ø	Ø	Ø	12,000 INF

EMPATICA EMBRACE PLUS Band (plug and play)

The wearable which is proposed in the solution is the Empatica Embrace Plus band. This particualr wearable has been selected because it has **real time continuous** and **objective data capture**. As Empatica is an open source platform, the solution uses its API to build its own application without having the hassle of connecting multiple apps.

Empatica Embrace Plus is cost-efficient comparedd to the other smart watches and fitness bands in the market. As this band is used for research projects as well, the data which is captured by the sensors present is very accurate with little margin of error. It also was the band which had all the required sensors to capture stress and emotions of the mother. An EDA sensor, skin temperature sensor and heart rate variability sensor are required for continuous data capture and give accurate results. One app for all approach.

Conclusion

Work from home is a burden for many employees but the working mothers are greatly affected by this. They have been struggling to maintain a balance between their professional and personal lives in the home around their children all the time.

Currently there does not exist any solution for working from home mothers that involves using real time data monitoring to cater to daily routines. Current smart watches like apple and fitbit do stress detection and have meditative sessions.

Women's decisions about paid work and mothering are dichotomized as we often portray individual women as making choices between whether they will be "stay-at-home" and presumably "full-time" mothers, or "working mothers" and therefore ones who prioritize paid work over caregiving. The working mother is also characterized as a "supermom." The mythic "supermom" should be able to switch effortlessly from a high-powered career woman to an attentive mother/homemaker without sacrificing her job or children. Yet the "supermom" image and the very label itself suggests that when women work outside the home, motherhood should still be their primary duty.

We expect women to work like they don't have children, and raise children as if they don't work. Because of this, women feel guilty — guilty for working and guilty for not. Blurred boundaries of work time spill into their family time, and half listening to their children's stories from their day or missing out on meaningful time with them can lead to mother's feel like they are failing. It feels like a no-win situation, and it fuels feelings of overwhelm, exhaustion, and defeat that can lead to burnout.

Working towards and helping working mother's let go of this guilt should be the top priority. It eats away, disrupts their sleep, affects their mood, and gets in the way of being present. Going forward, the intervention to be designed should mitigate the guilt of the mother by making her family understand and acknowledge her role as a working employee. It must also help her cope with her stress through organizational intervention.



Working from home made easy

Thank You