



# CS 147: Assignment 2

## POVs & Experience Prototypes

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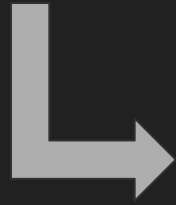
We met...  
Sara, a very busy student  
who wanted to get more out  
of her daily schedule.

We were amazed to realize...  
• people do not use third-party/  
niche productivity apps  
consistently.

• people use the same 2/3  
apps (notes, calcs, list makers) to  
productive

satisfied  
they are

**Habits**



**Productivity**



**Sleep**

**Needfinding**

**POVs & HMWs**

**Experience Prototypes**

**Needfinding**

**POVs & HMWs**

**Experience Prototypes**



# Interviews

# Survey

## You and Your Sleep Habits

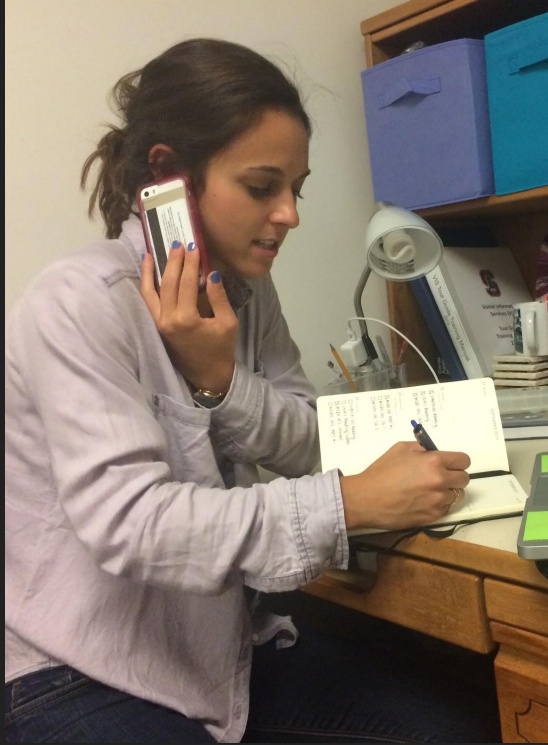
A brief survey to assist with a team of Stanford Students in developing a tool to help you sleep

\* Required

How many hours of sleep do you usually get a night? \*

- 9 or more
- 7 to 8
- 6 to 7
- 5 to 6
- Less than 5

How do you decide when to go to bed? \*



**Camryn**



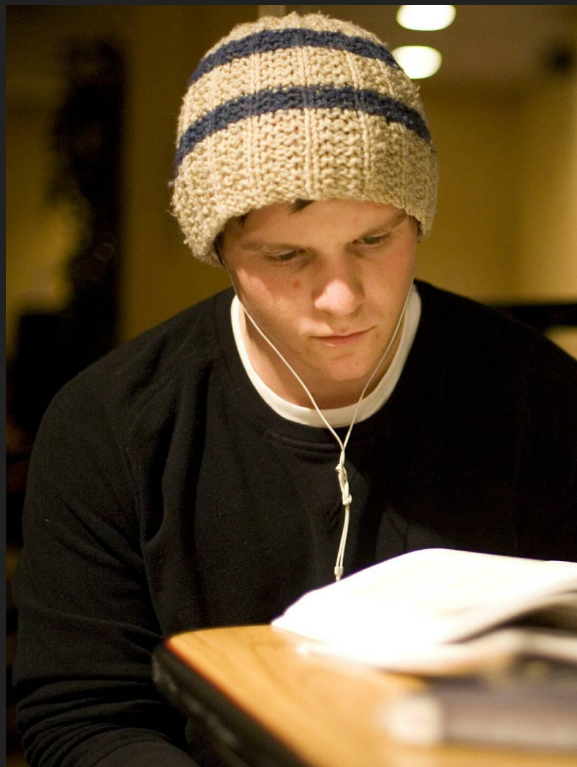
**Rotto**



**Tara**



**High School  
Student**



**College  
Student**



**Young  
Professional**



**Needfinding**

**POVs & HMWs**

**Experience Prototypes**

# HMW...

- ... tailor users sleep habit to morning
- ... use of stimuli to help!
- ... Optimize efficiency
- ... change wake up routine
- ... increase ability to achieve goals
- ... Limit time before bedtime
- ... make more enjoyable!
- ... reduce phone usage
- ... make user

# Solutions:

- Customizable alarm & snooze
- Use user selected sound
- Use Natural light
- Reward user for waking up on time
- Incorporate favorite songs/playlists
- Use REM cycles to time alarm
- Simply morning tasks
- Record morning routine → set alarm based on this
- Make checking phone upon wake-up make you more alert
- Use fun

$$\frac{x-M}{\sigma}$$

# How might we...

## High School Student:

- ... tailor users sleep habits to <sup>them</sup>
- ... use additional stimuli to help wake up user
- ... optimize snooze efficiency
- ... change users wake up routine
- ... inspire accountability to bedtime
- ... limit distractions before bed time
- ... Make going to bed more enjoyable
- ... Control bedtime phone usage
- ... make checking phone wake user
- ... produce more melatonin
- ... change the stigma that sleeping less = work
- ... tell the user how well they are sleeping

## College Student:

- Solutions:
- Customizable alarm & snooze
  - Use user selected sound
  - USE NATURAL LIGHT !!
  - Reward user for waking up on time !!
  - Incorporate users favorite music
  - USE REM CYCLE TO TIME ALARM
  - SIMPLIFY MORNING TASKS !!
  - record morning routine → set alarm based on
  - Make checking phone upon wake-up more
  - Use funny gifs/photos/videos as wake
  - USE NON-CONVENTIONAL WAKE UP methods
  - TRACK SLEEP DEBT

## Young Professional:

- ... tailor users sleep habits to <sup>them</sup>
- ... use additional stimuli to help wake up user
- ... optimize snooze efficiency
- ... change users wake up routine
- ... inspire accountability to bedtime goals
- ... limit distractions before bed time
- ... Make going to bed more enjoyable
- ... Control bedtime phone usage
- ... make checking phone wake user
- ... produce more melatonin
- ... change the stigma that sleeping less = working more
- ... tell the user how well they are sleeping

# How might we...

**High School Student:**

**... make waking  
up more  
enjoyable for  
the user?**

**College Student:**

**...inspire  
accountability  
to set and  
accomplish  
bedtime goals?**

**Young Professional:**

**... help users  
feel more alert  
when they wake  
up?**

# Solutions for...

## Enjoyable Wake Ups: Inspiring Accountability: Alert Wake Ups:

- ... tailor users sleep habits to <sup>alarm</sup> ~~alarm~~
- ... use additional stimuli to help wake up user
- ... optimize snooze efficiency
- ... change users wake up routine
- ... inspire accountability to bedtime
- ... limit distractions before bed time
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- Solutions:
- Customizable alarm & snooze
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# **Solution for...**

**Enjoyable Wake Ups:**

**Customize  
morning  
routine with a  
wearable  
watch**

**Inspiring Accountability:**

**Track sleep  
debt and give  
recommend  
sleep goals  
using schedule**

**Alert Wake Ups:**

**Change the  
sleep  
environment  
when it's time  
to wake up**

**Needfinding**

**POVs & HMWs**

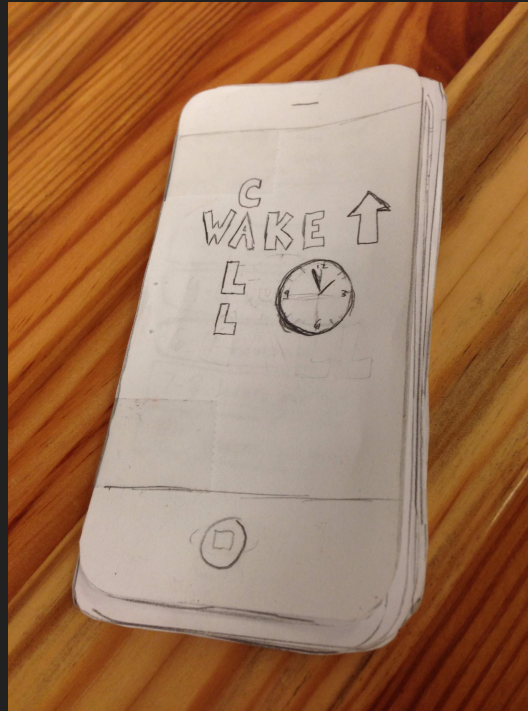
**Experience Prototypes**

# Experience Prototypes

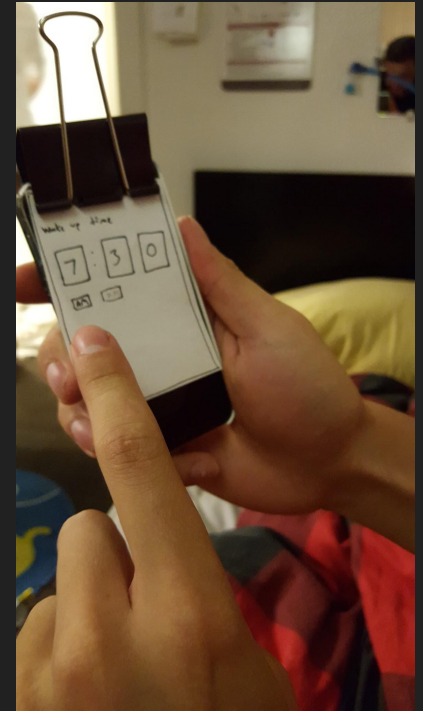
## iWake



## Wake Up Call

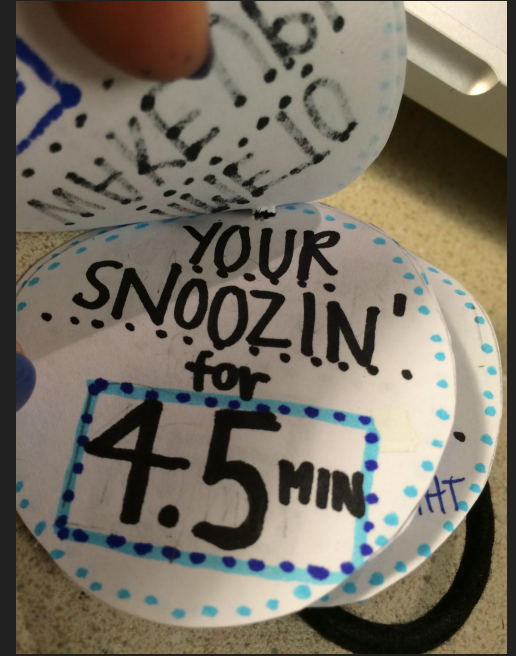


## Rise & Shine





# iWake: Development



# iWake: Testing



**Set Nightly Alarm**



**Input Desired Settings**



**Wake Up and Complete Morning Routine**

# iWake: Results



“I try to count backwards, it takes way too long”

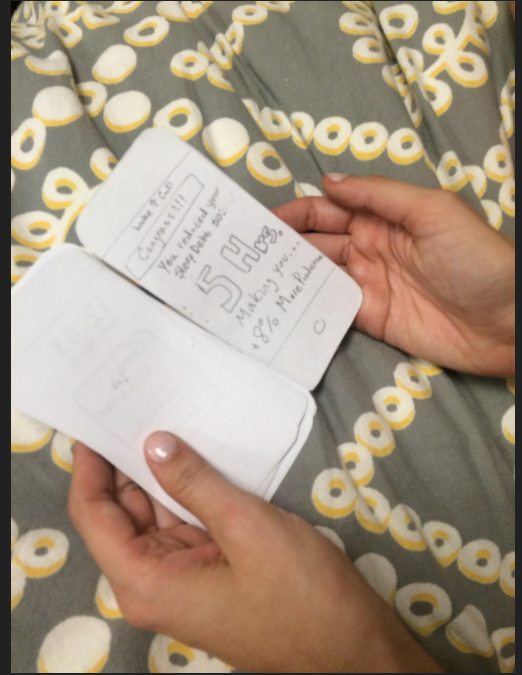
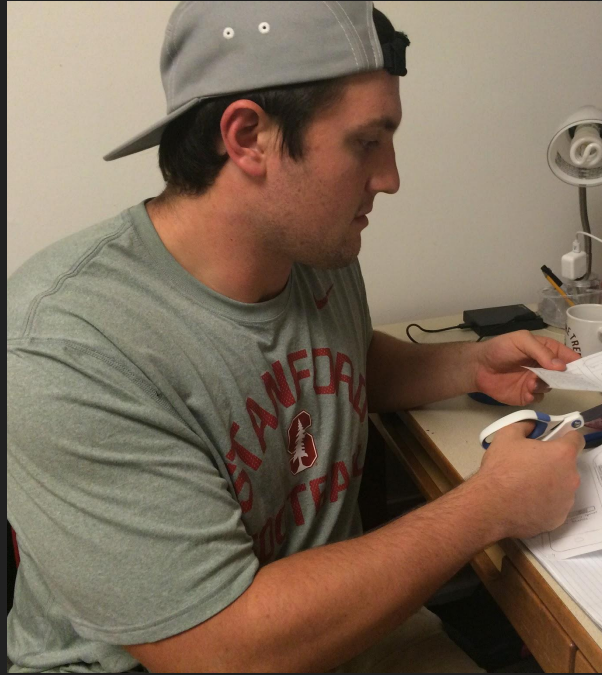
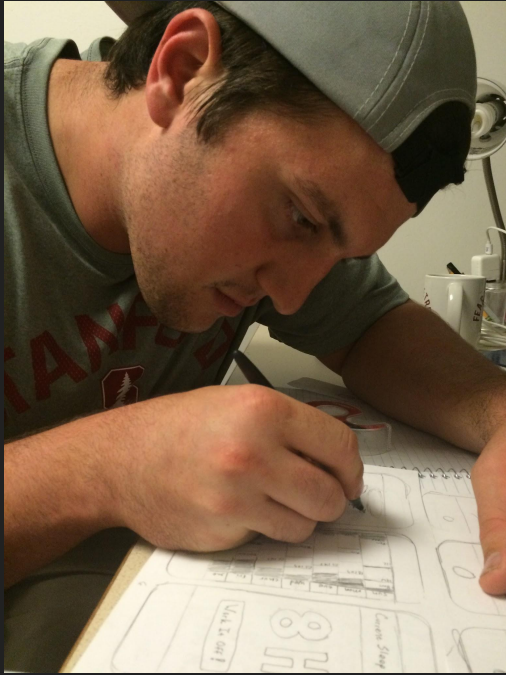


“Can I wake up to the sound of my wind chimes?”



“It took me only 20 minutes to get out the door!”

# Wake Up Call: Development

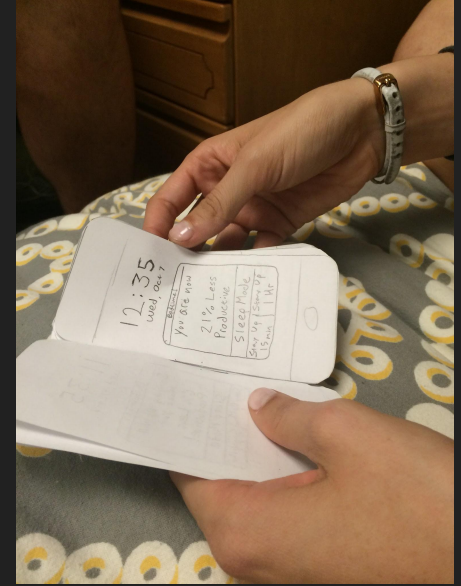


# Wake Up Call: Testing



See your  
"Optimal" Sleep  
Schedule

Alerts regarding loss of  
productivity before bedtime



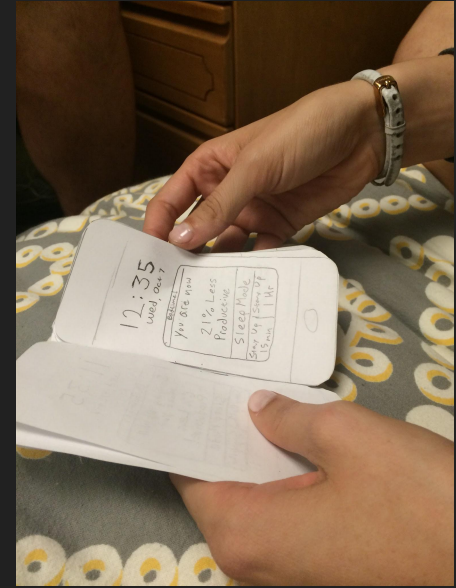
Chose to stay up  
and work or go to  
bed

# Wake Up Call: Results



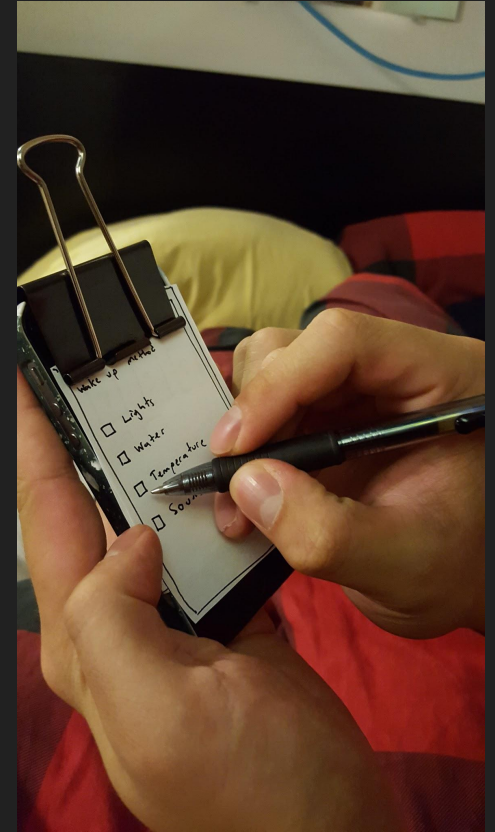
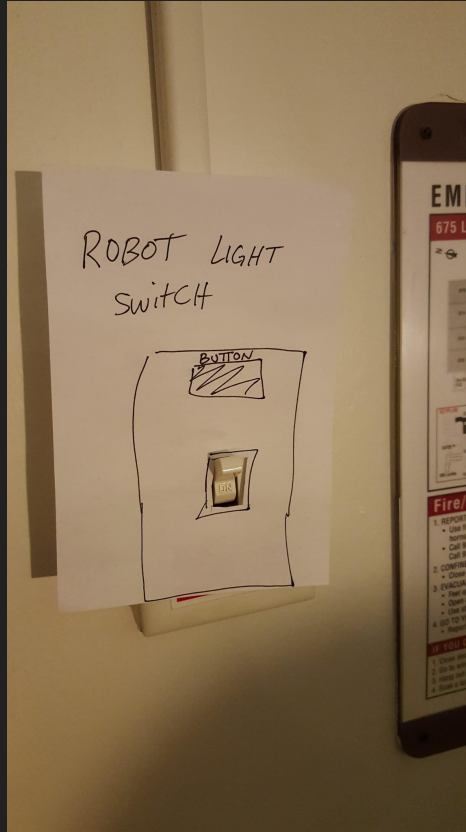
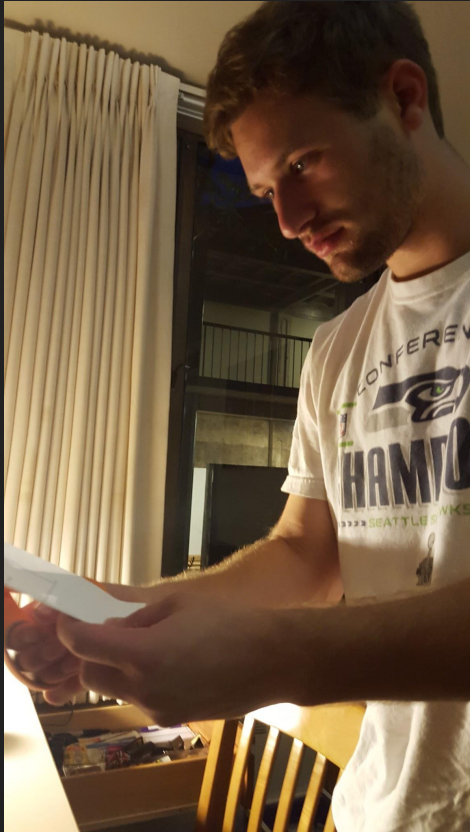
“Oh, now I get it. The shaded parts are when I sleep.”

“6% is not that much less productive. I think I would still stay up to get my work done. I would want to just crank it out”



“hmm.. now i’m going to be 21% less productive. that’s a lot. maybe i’ll just go to sleep.”

# Rise & Shine : Development



# Rise & Shine: Testing



Select desired  
wake up method

Meditate to reach a  
point of restfulness



**WAKE UP!**



# Rise & Shine: Testing



“I’d either use the water or make my bed cold, or both”

“I would definitely use this if I HAD to be up”



“Ah! I’m up, I’m up!”

# Findings:

## Wake:

- ✓ Custom snooze
- ✓ Custom alarm
- ✓ Unaware of the time it takes
- ✓ Enjoy knowing time it takes
- ✗ Favorite app helps

Tracking movement would help with getting out of bed.

## Wake Up Call:

- ✓ Sleep work conflict
- ✓ "Sleep mode"
- ✓ Loss in productivity encourages sleep
- ✓ Schedule sleep is Rare
- ✗ Alerts before bedtime

Alerts must be made minimally and at key times.

## Rise and Shine:

- ✓ Water
- ✓ Cold bed
- ✓ Sounds
- ✓ Lights flashing
- ✓ Non-Traditional methods are preferred to alarms

Users want this when sleeping in is not an option.

**Needfinding**

**POVs & HMWs**

**Experience Prototypes**



**Questions?**