mirage

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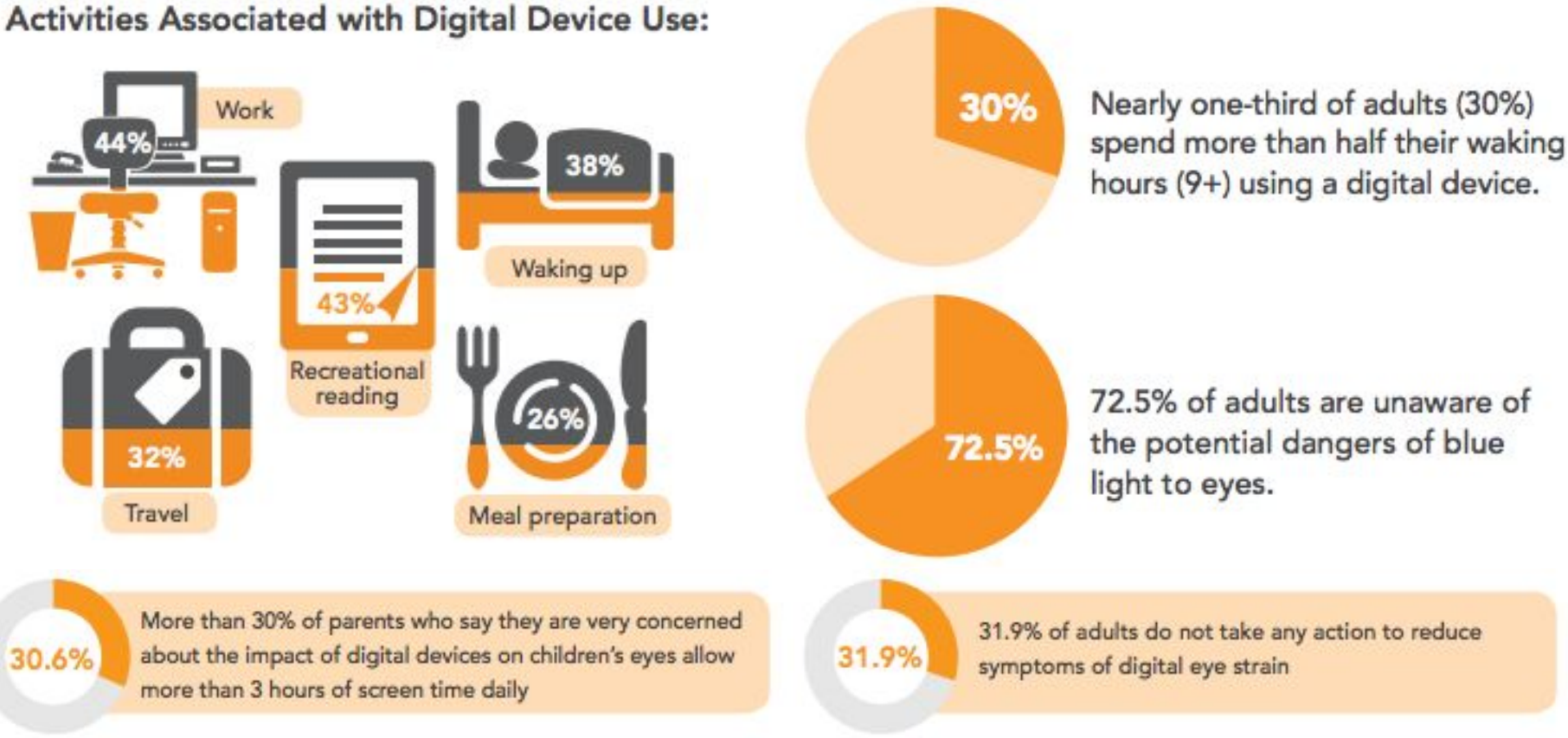
background

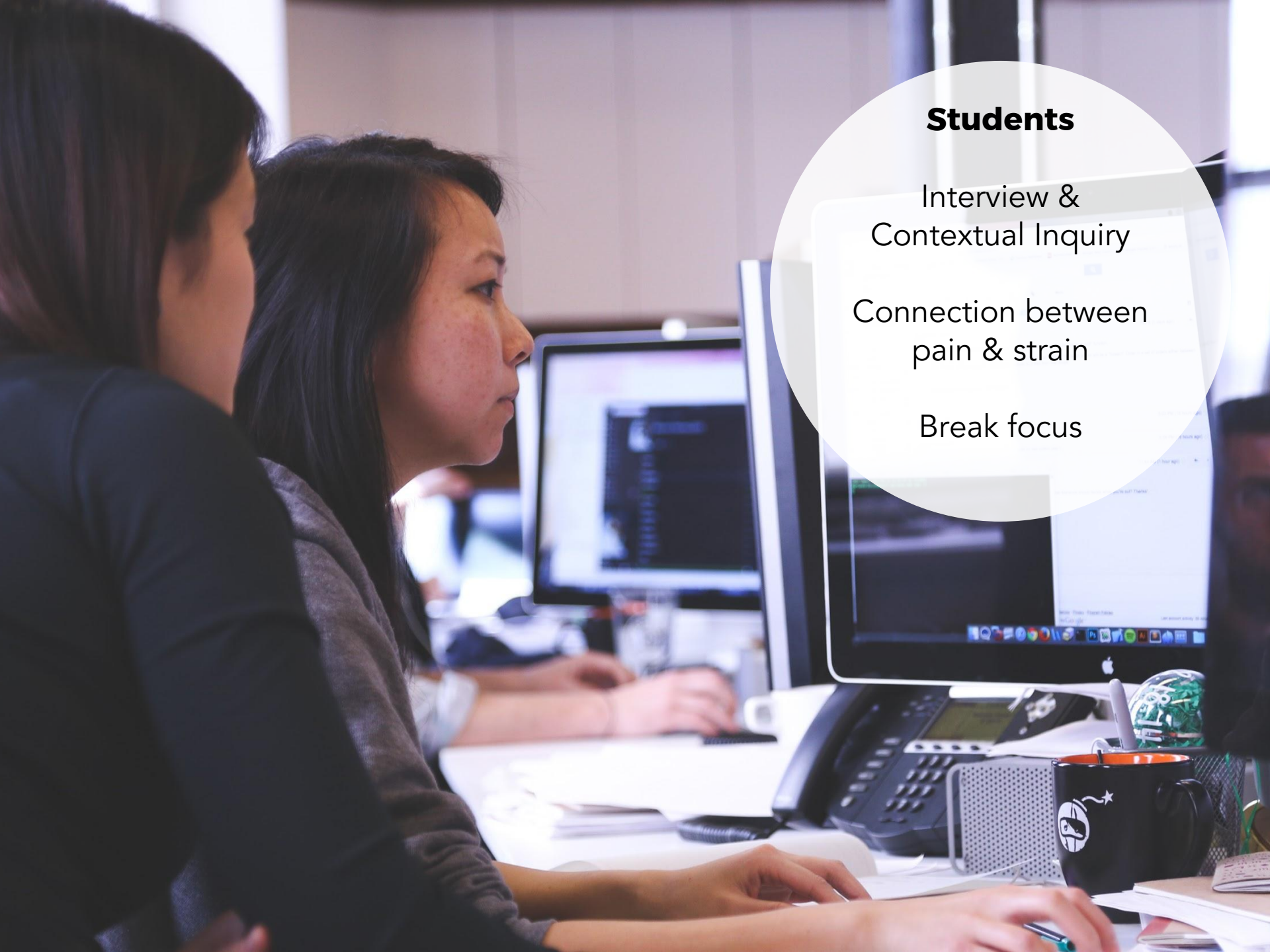


https://www.thevisioncouncil.org/sites/default/files/VC_DigitalEyeStrain_Report2015.pdf

problem

- Prolonged eye strain is pernicious
- Limited awareness
- Many contributing factors

Office Worker
Interview &
Diary Study
Little to no eye
strain awareness
Short coffee &
social breaks


Students
Interview &
Contextual Inquiry
Connection between
pain & strain
Break focus

Optometrist
Interview
Short intermittent breaks are best
Many causes of eye strain

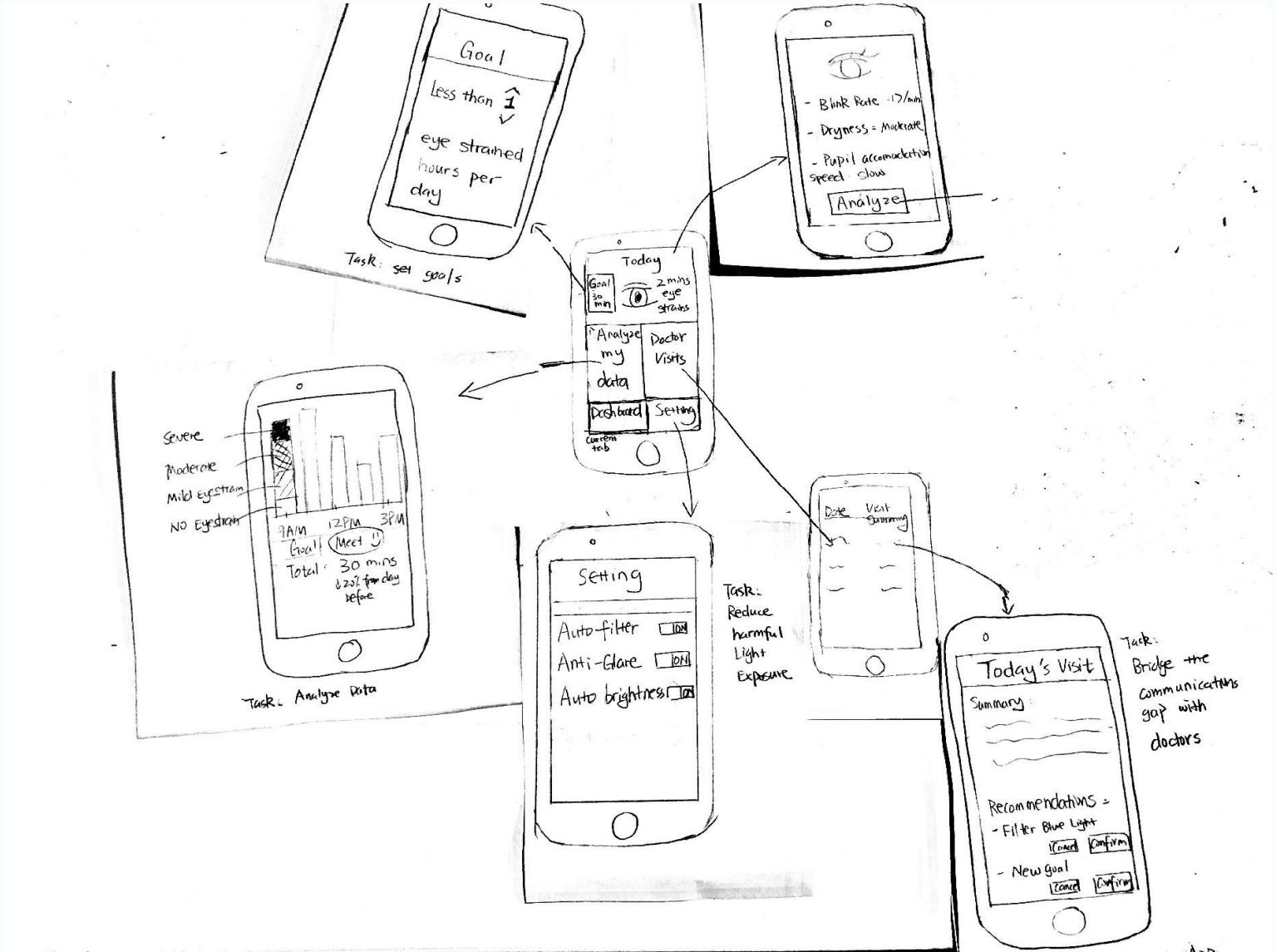
tasks

- Reduce harmful light exposure
- Reduce eye strain
- Improve focus
- Track eye strain
- Analyze data
- Patient-Doctor communication

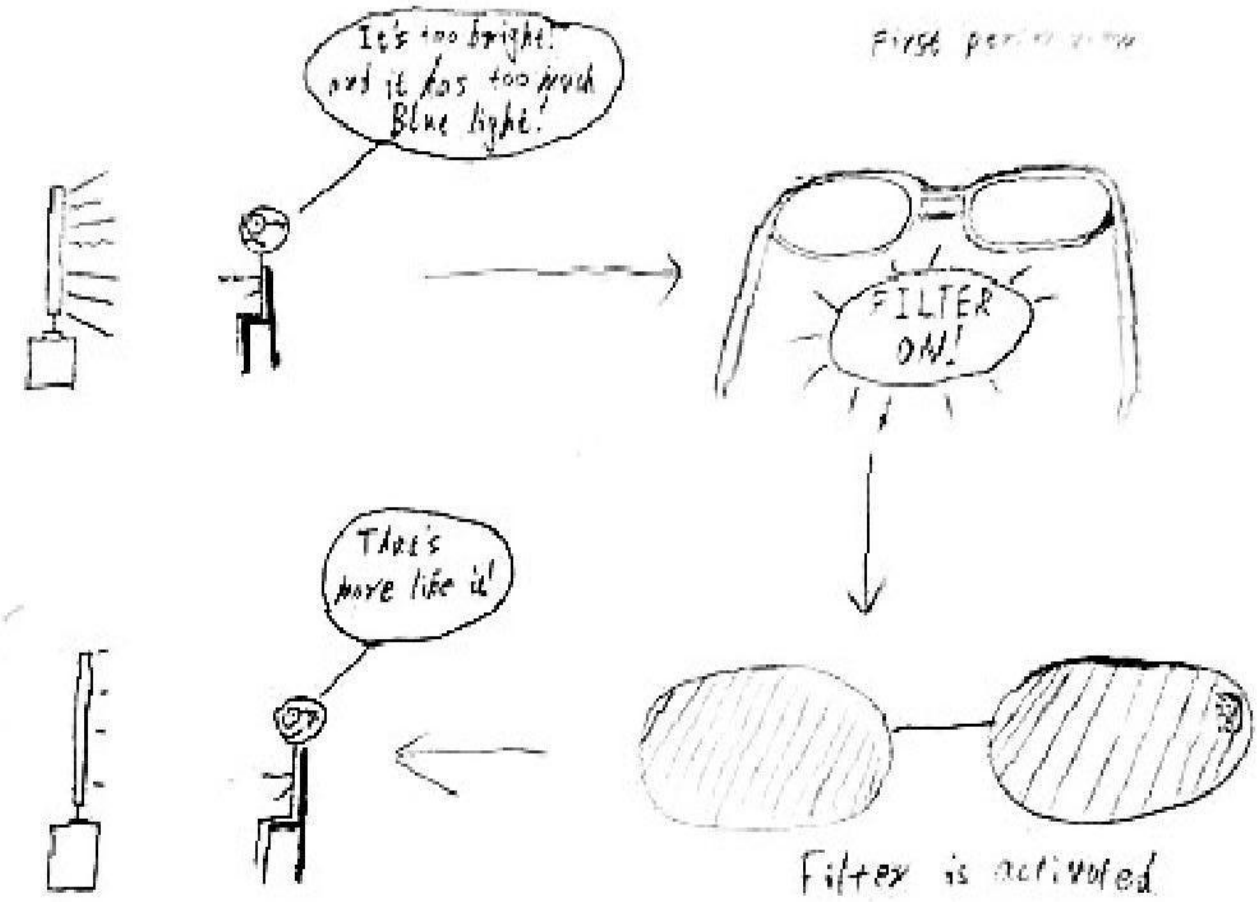
sketches

- Phone application
- Holographic Augmented Reality glasses (HolAR lens)
- Eye implant

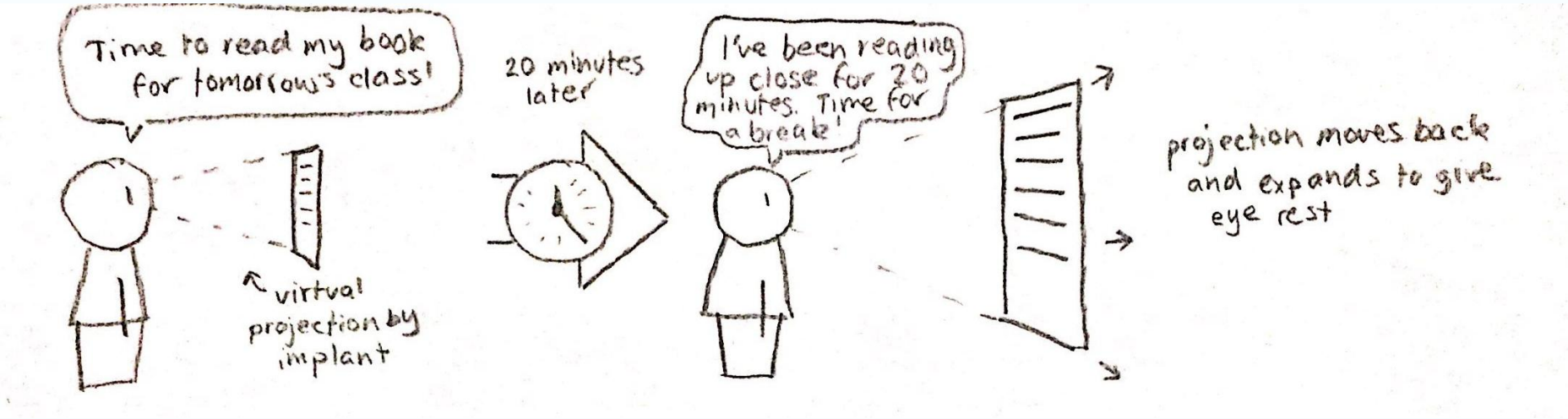
phone app

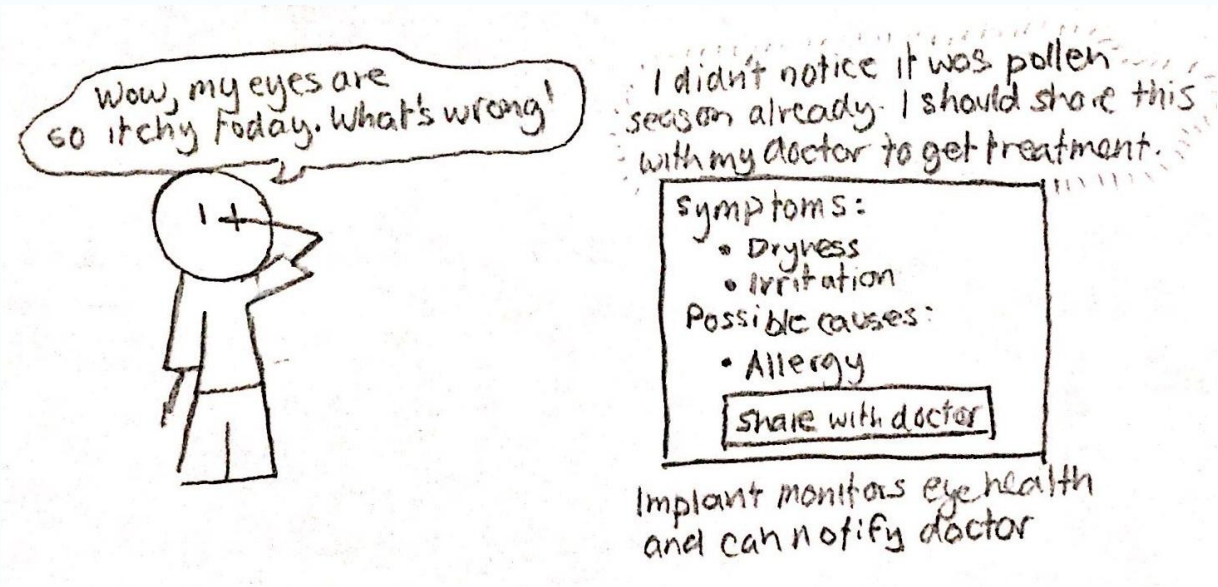

Goal
Less than 1
eye strained
hours per
day
Task: set goals
- Blink Rate :17/min
- Dryness : Moderate
- Pupil accomodation speed: slow
Analyze
Today
Goal 30 min
2 mins eye strains
Analyze my data
Doctor Visits
Dashboard
Setting
Severe
Moderate
Mild eyestrain
No Eyestrain
9AM
12PM
3PM
Goal
Meet !!
Total: 30 mins
↓20% from day before
Task: Analyze Data
Setting
Auto-filter ON
Anti-Glare ON
Auto brightness ON
Task: Reduce harmful Light Exposure
Date
Visit Summary
Today's Visit
Summary
Recommendations:
- Filter Blue Light
Cancel
Confirm
- New Goal
Cancel
Confirm
Task: Bridge the communications gap with doctors

HolAR lens


It's too bright!
and it has too much
Blue light!
FILTER
ON!
That's
more like it!
Filter is activated

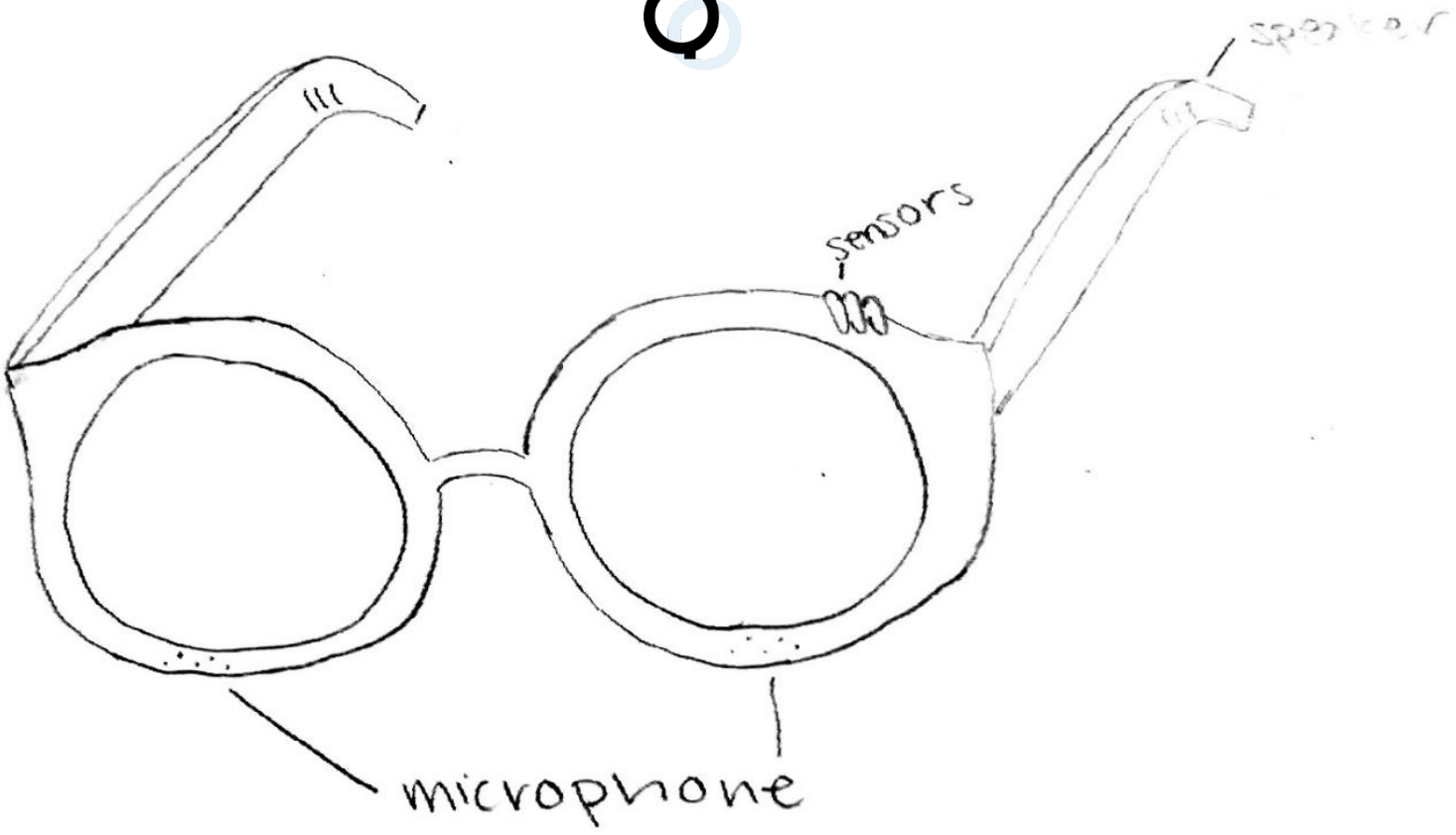
implant


Time to read my book for tomorrow's class!
virtual projection by implant
20 minutes later
I've been reading up close for 20 minutes. Time for a break!
projection moves back and expands to give eye rest

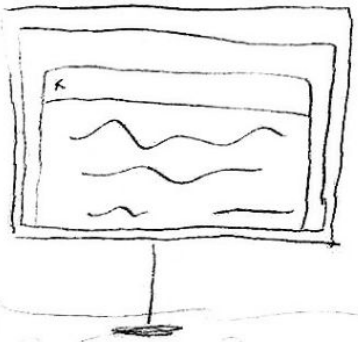

Wow, my eyes are so itchy today. What's wrong!
I didn't notice it was pollen season already. I should share this with my doctor to get treatment.
Symptoms:
• Dryness
• Irritation
Possible causes:
• Allergy
Share with doctor
Implant monitors eye health and can notify doctor

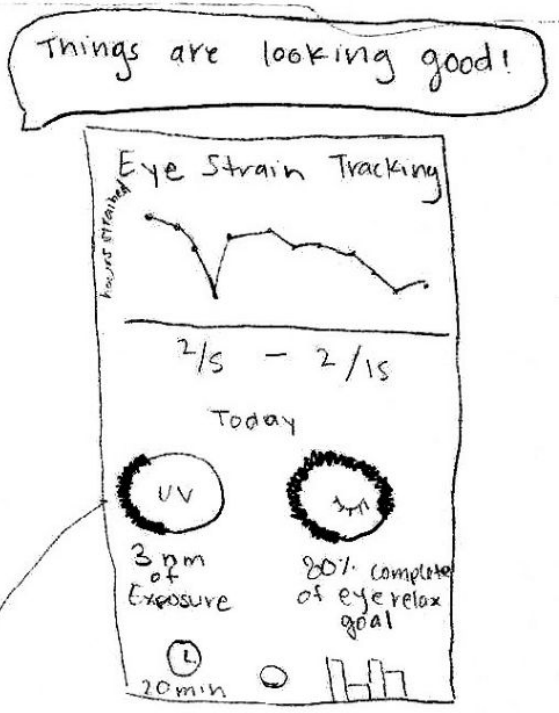
selected design

mirage



HolAR adjusts Bill's view

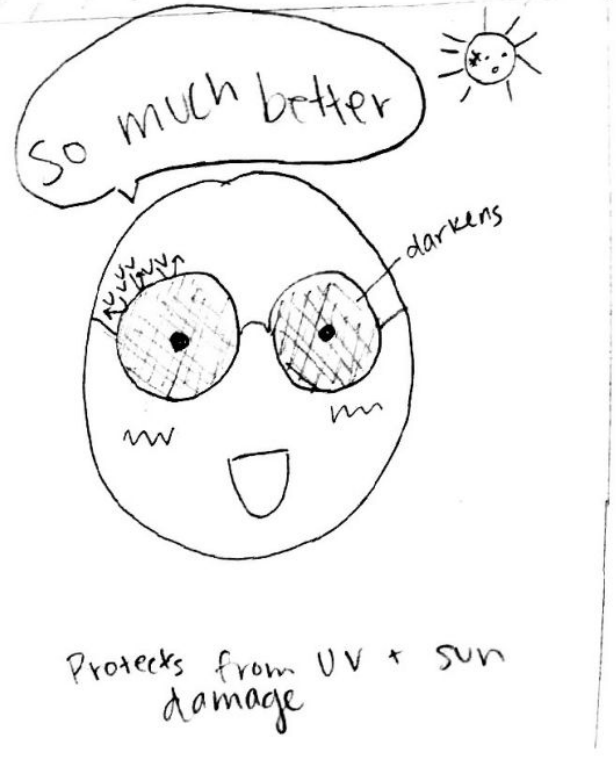




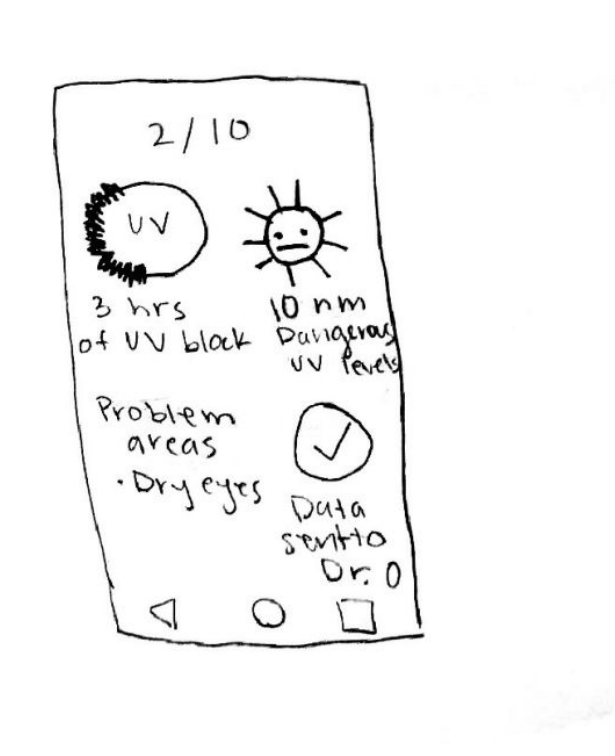
reduce eye strain

Time for class!

hehehe
Gah! so bright!
sensor
sensor


So much better
darkens
Protects from UV + sun damage

I wonder how much UV these are blocking


2/10
UV
3 hrs of UV block
10 nm Dangerous UV levels
Problem areas
· Dry eyes
Data sent to Dr. O

summary

- Group design is better
- Forget your assumptions
- Communication is essential
- Research before design

see your full potential
mirage