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A photograph of a man with curly brown hair and glasses, wearing a grey zip-up sweater over a light purple shirt. He is seated in a white mesh office chair, looking down at a computer keyboard. His right arm is resting on the desk, and he is wearing a white wristband with three small rectangular sensors attached to it. The background shows a wooden office desk with various items like a small elephant figurine and framed photos. A white cabinet with a green cushioned seat is also visible.

## Meet Bill

Works with computers 8+ hours per day

Wears glasses, doesn't understand why his eyes continue to get worse

Little to no eye strain awareness

In a digital world, we're using more screens than ever. This long-term and consistent use of screens slowly causes more and more damage to our eyes.

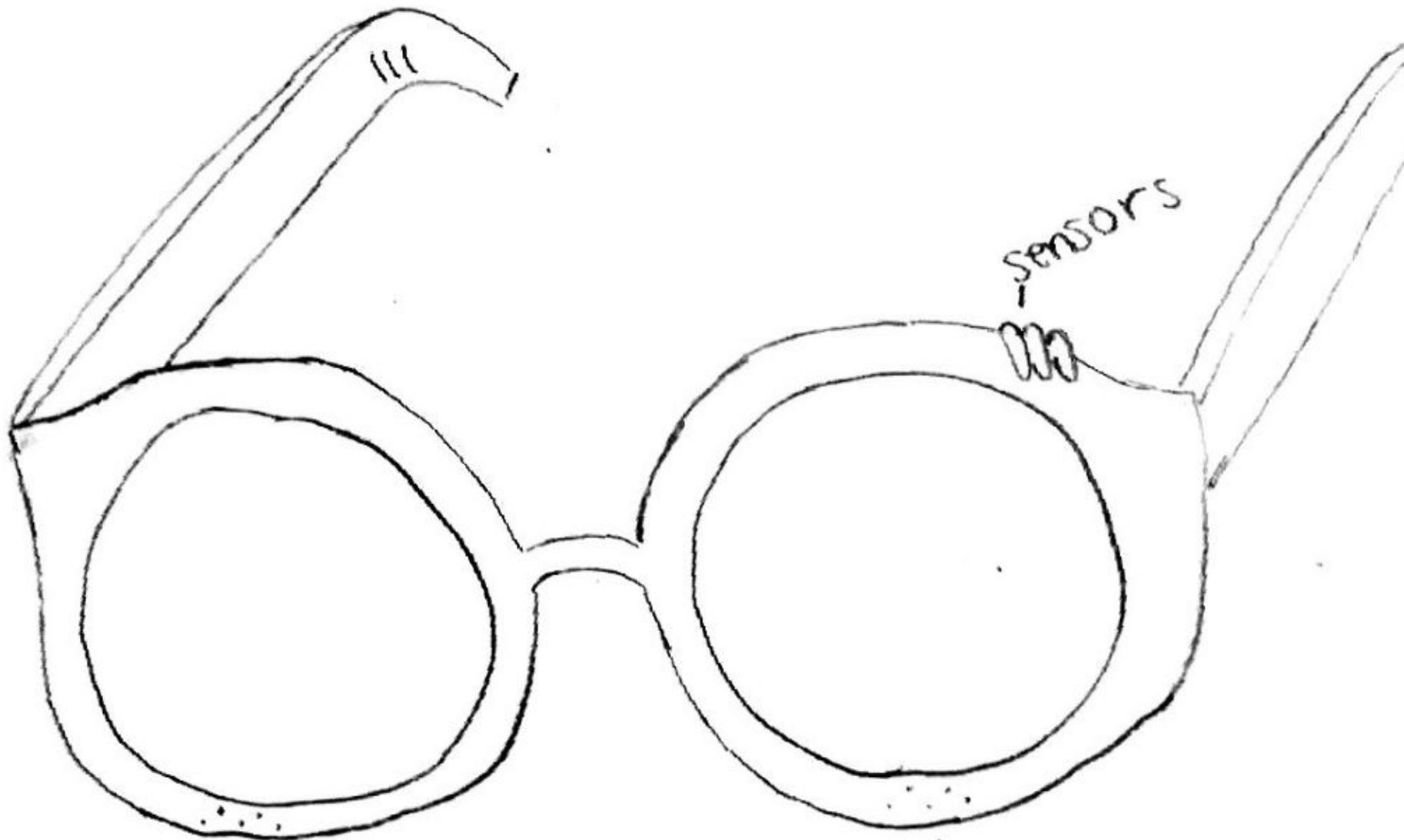
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# tasks

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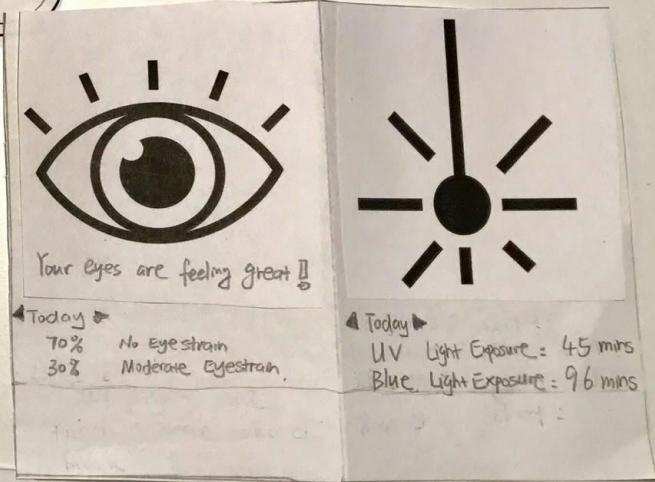
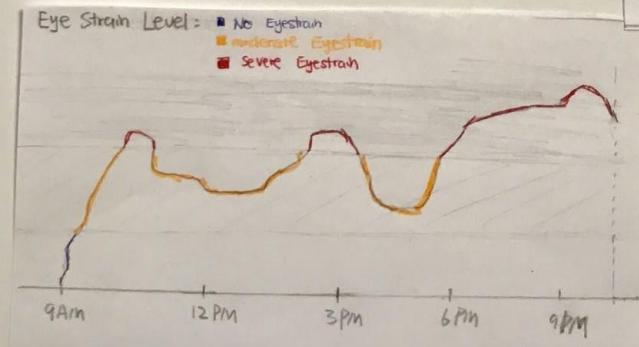
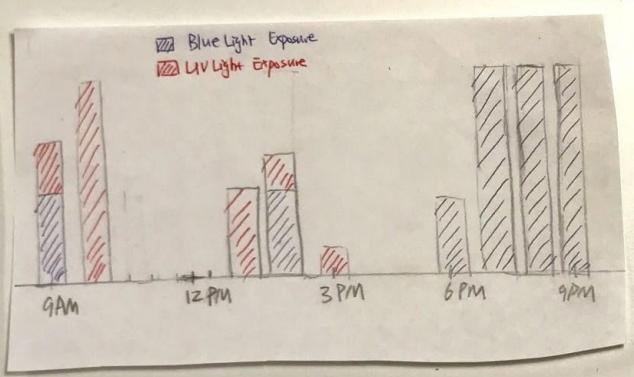
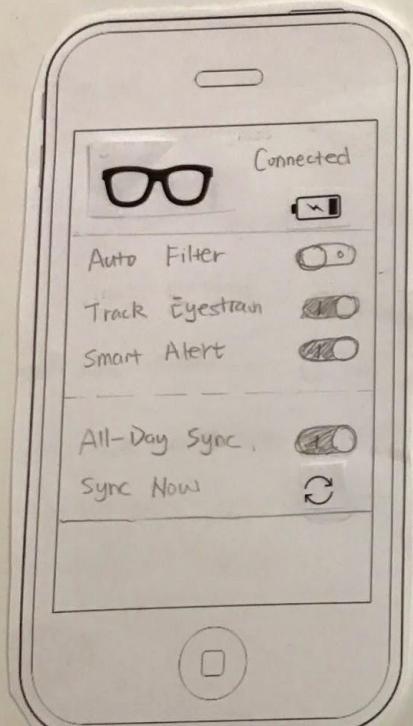
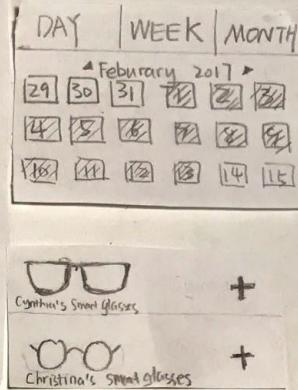
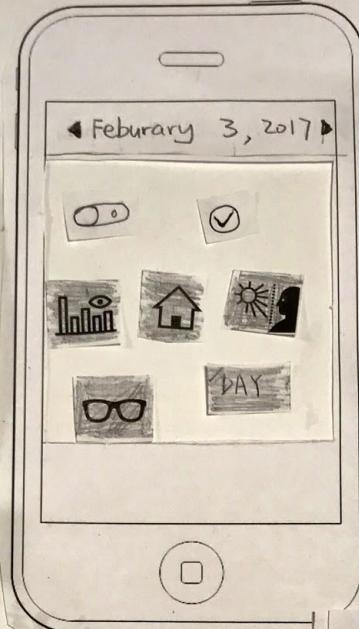
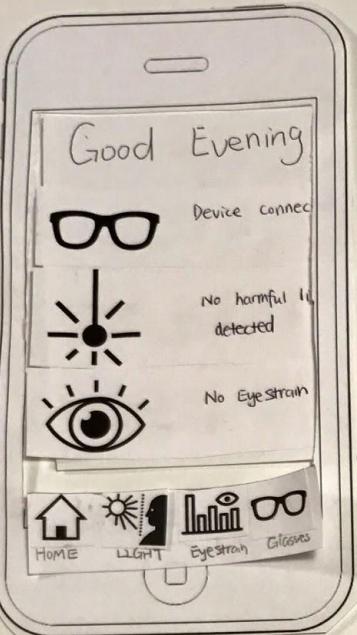
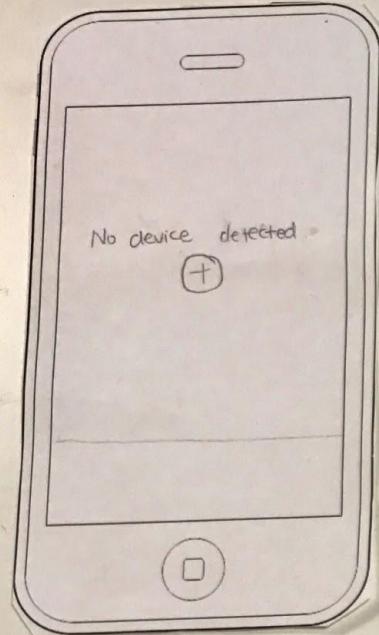
- Reduce harmful light exposure
- Reduce eye strain (caused from screens, reading, and dim light)

# glasses



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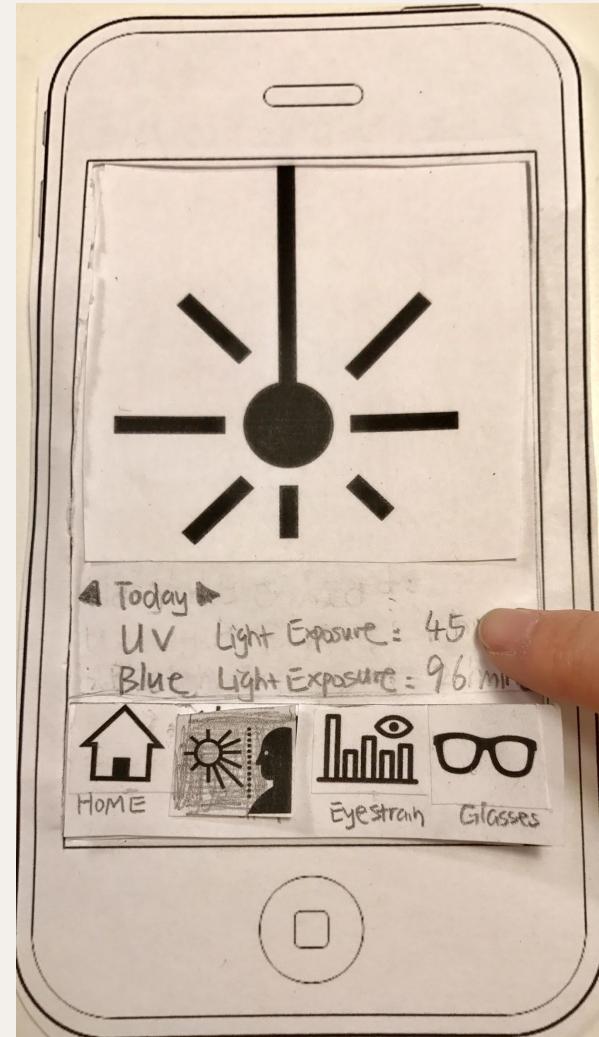
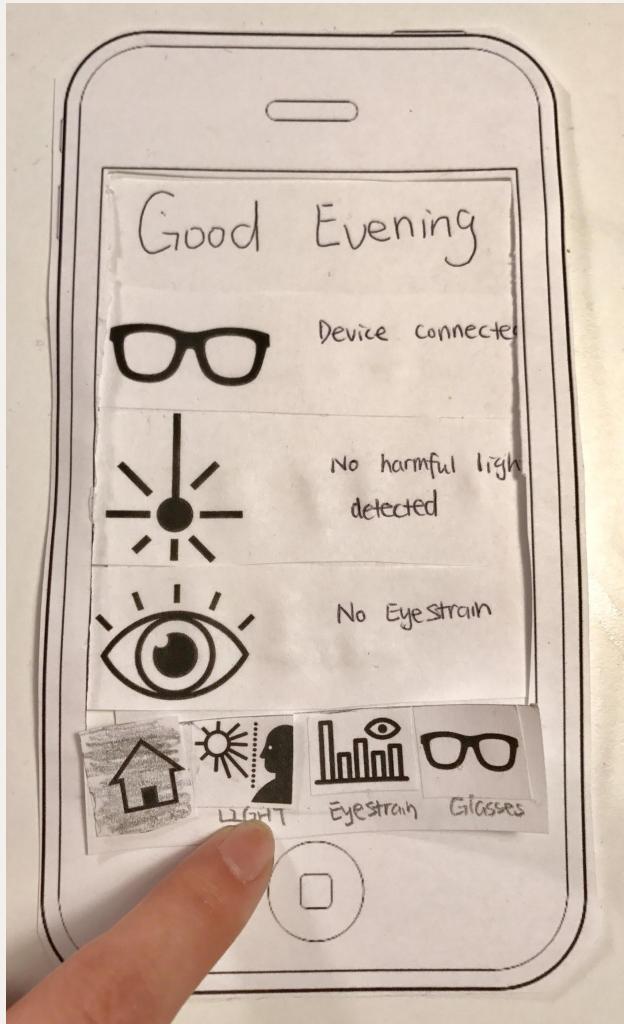
# Initial Paper Prototype



# overview

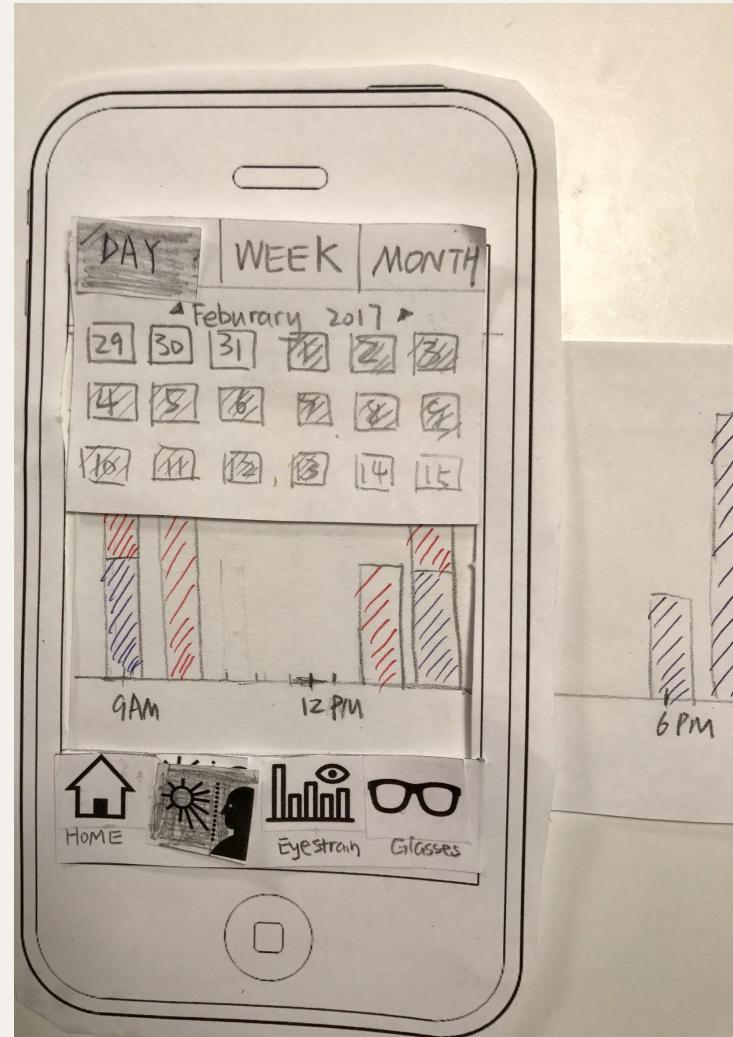
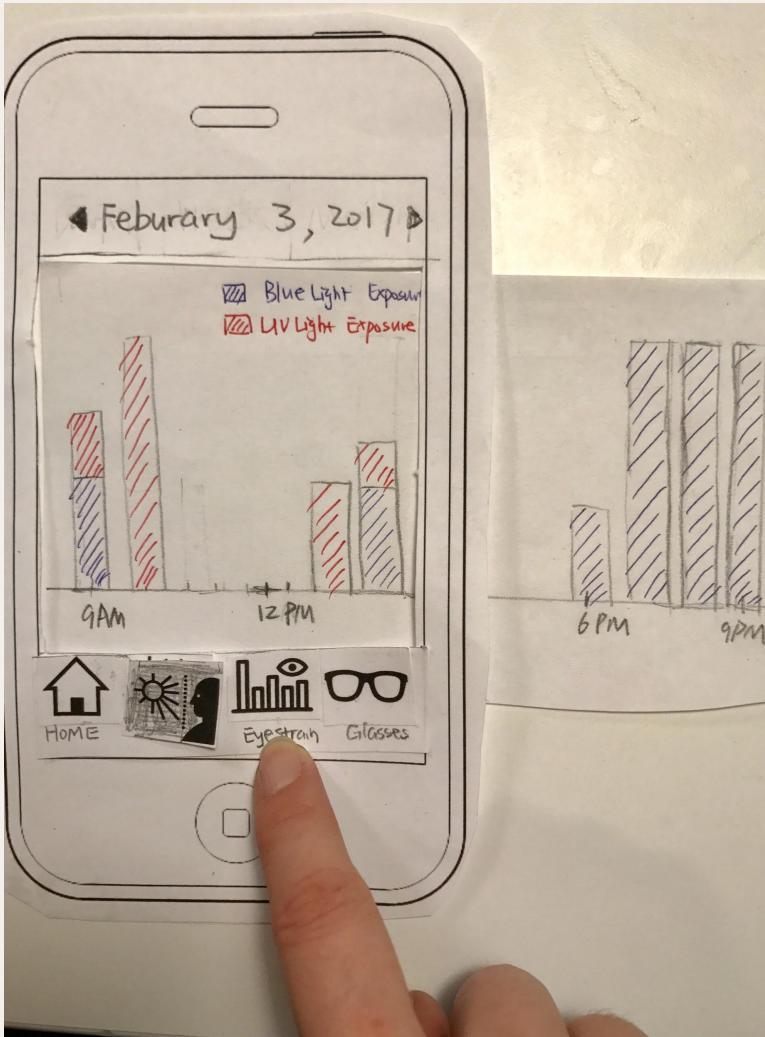
# task 1

reduce harmful light exposure



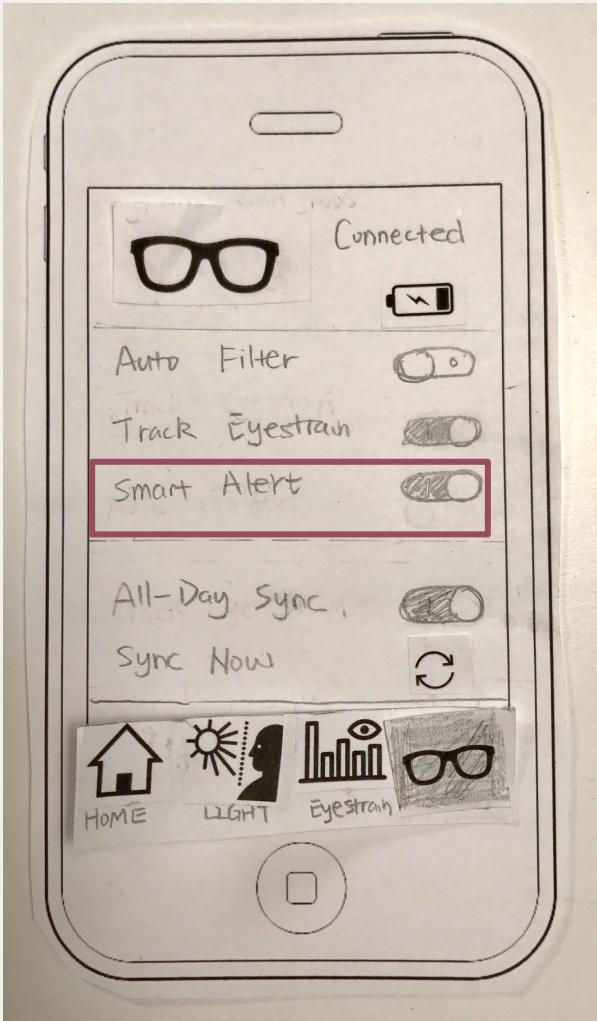
# task 1

reduce harmful light exposure



# task 2

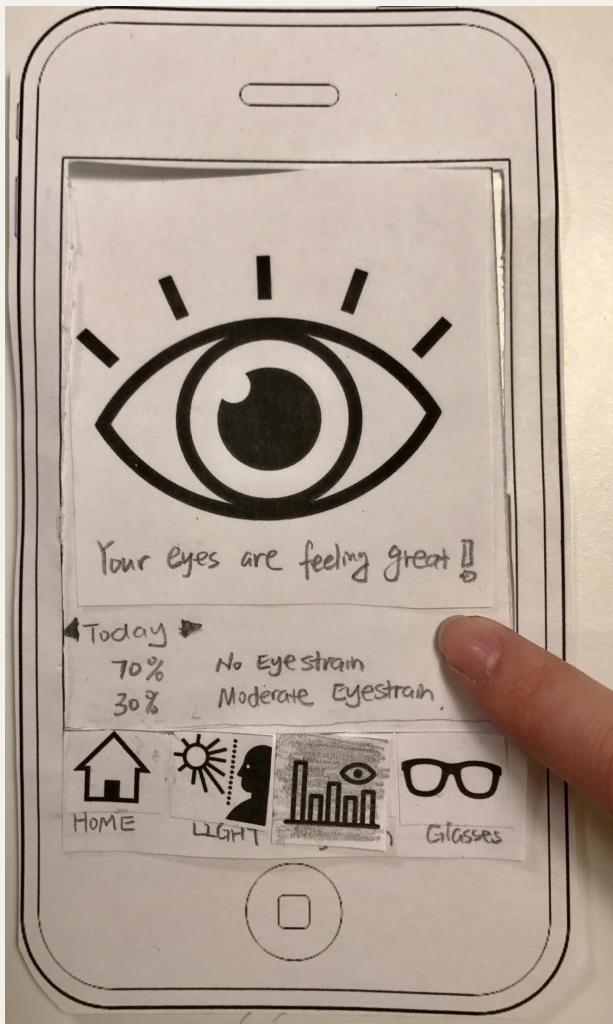
reduce eye strain



smart alert sends  
eye break  
notifications  
when the user  
has eye strain

# task 2

reduce eye strain



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Testing

# testing process



# testing process



with a lot of revisions in-between

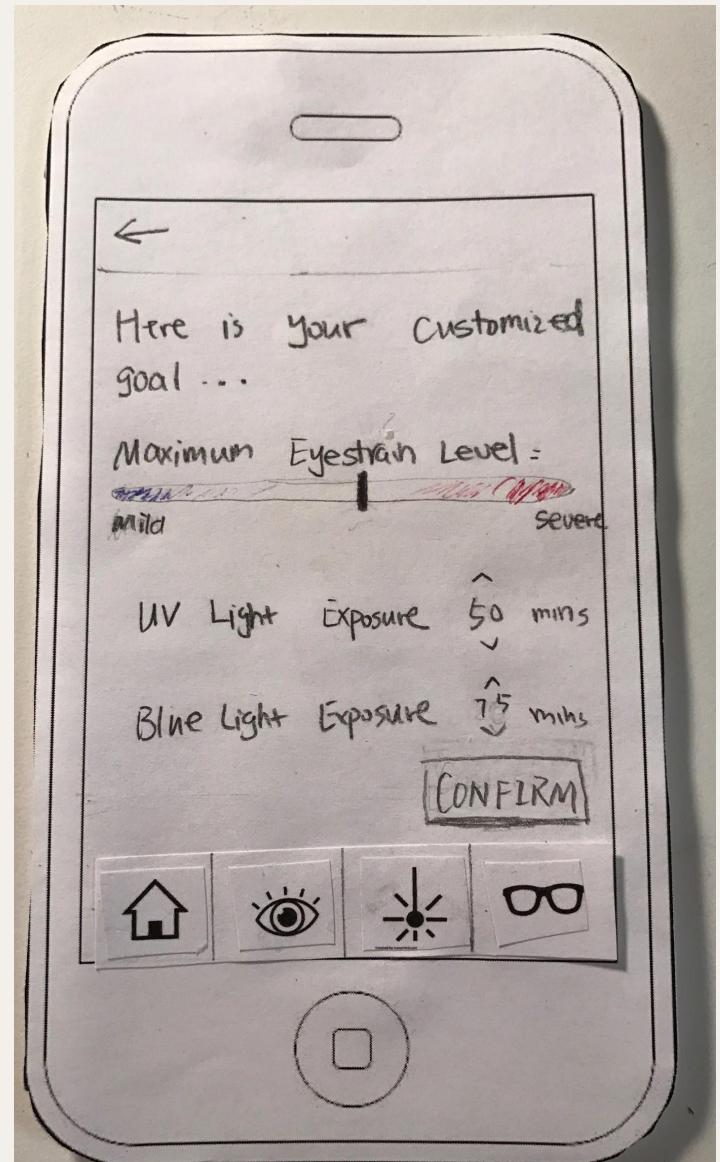
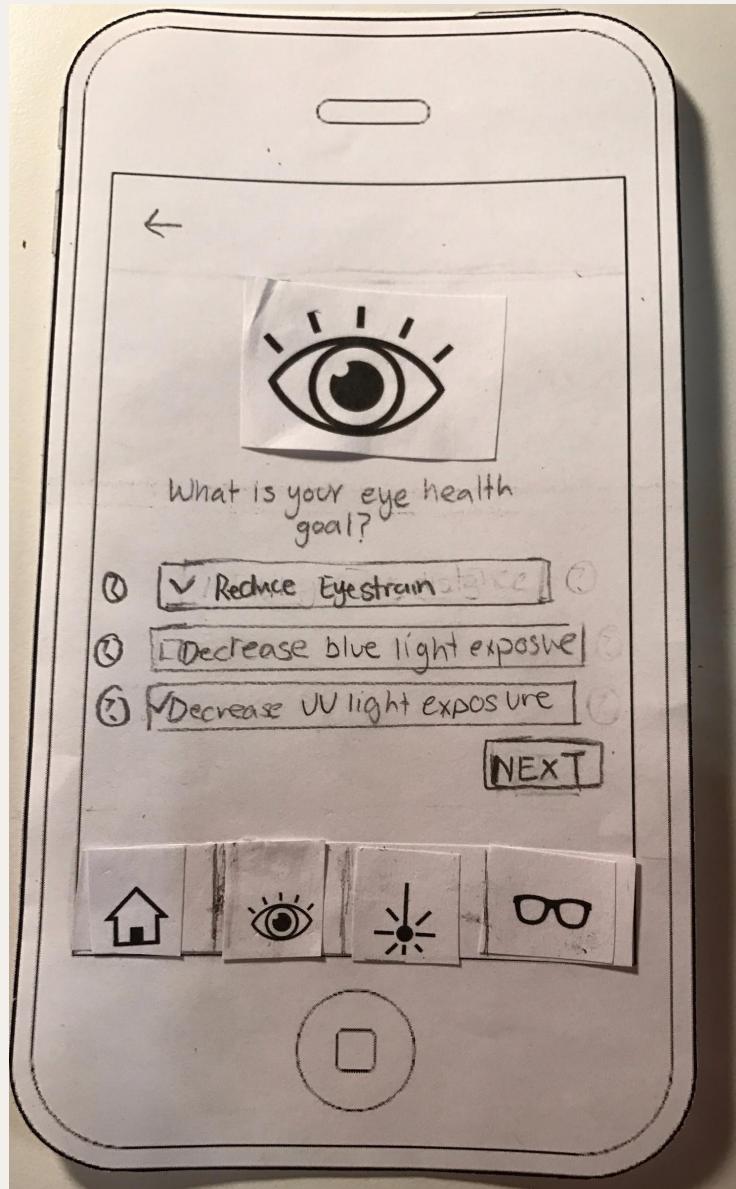
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## heuristic evaluation

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- Consistency and standards
- Minimalistic design
- Help and documentation
- Allow user to set a goal

# add a goal



# usability test

- UW CSE students
- Tasks:
  - set an eye strain goal
  - view their UV light exposure data
  - enable/disable alert
  - connect a new smart device

# usability test

feedback

- Unintuitive home screen design
- Misleading data visualization
- Confusing labels

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# testing results

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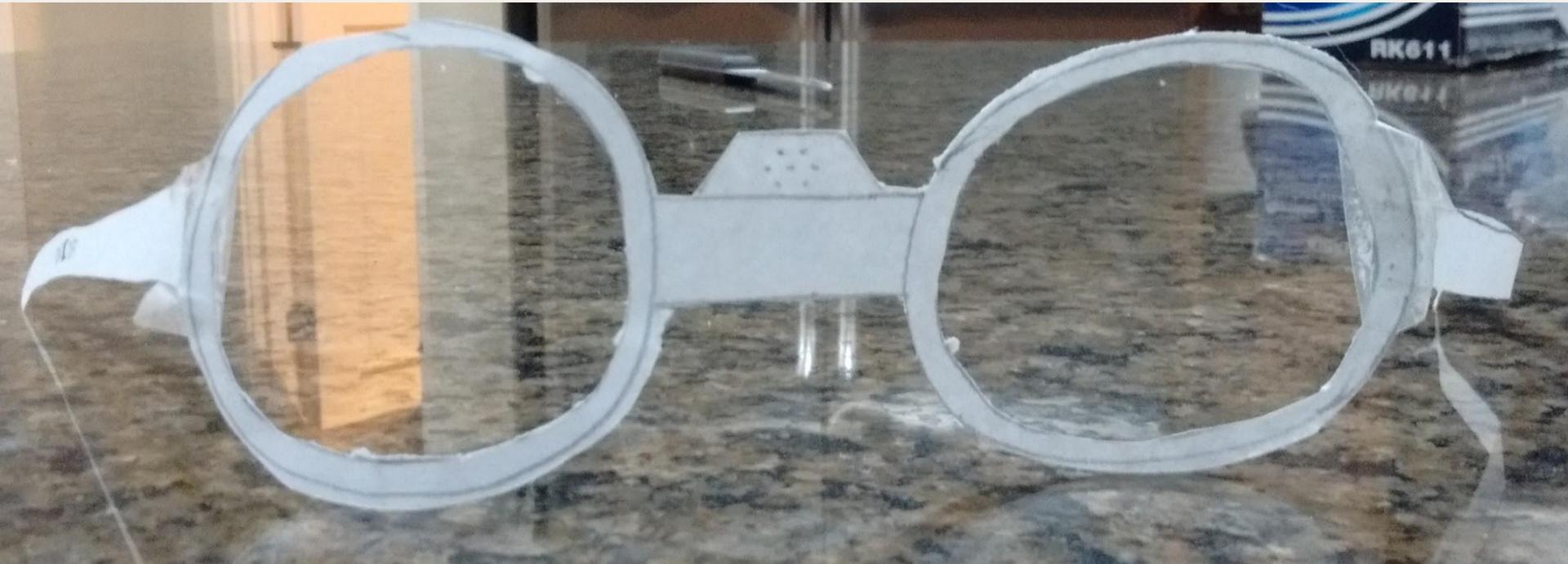
- Improved home screen  
(added buttons to call actions, added goal progress on the home page)
- Added more help and documentation  
(added ? next to many of our features to allow our users to read more about that issue, added a fun eye strain fact as load screen, documented app-specific terminology)
- Refined data visualization  
(updated add goal feature, made the user flow more understandable and easy to use)





# task 1

reduce harmful light exposure



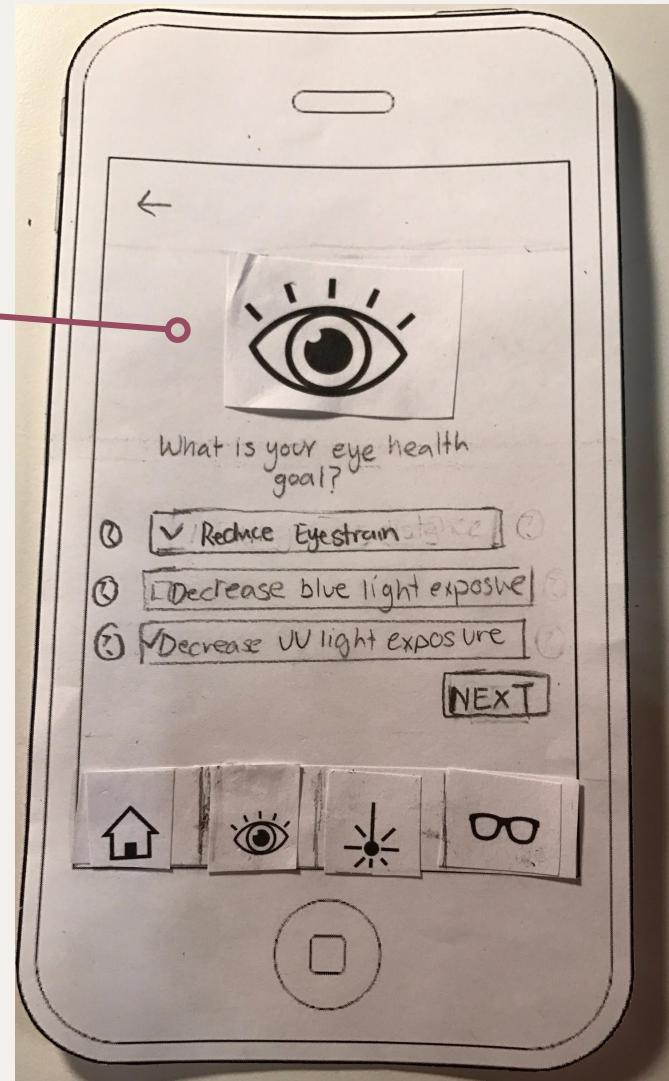
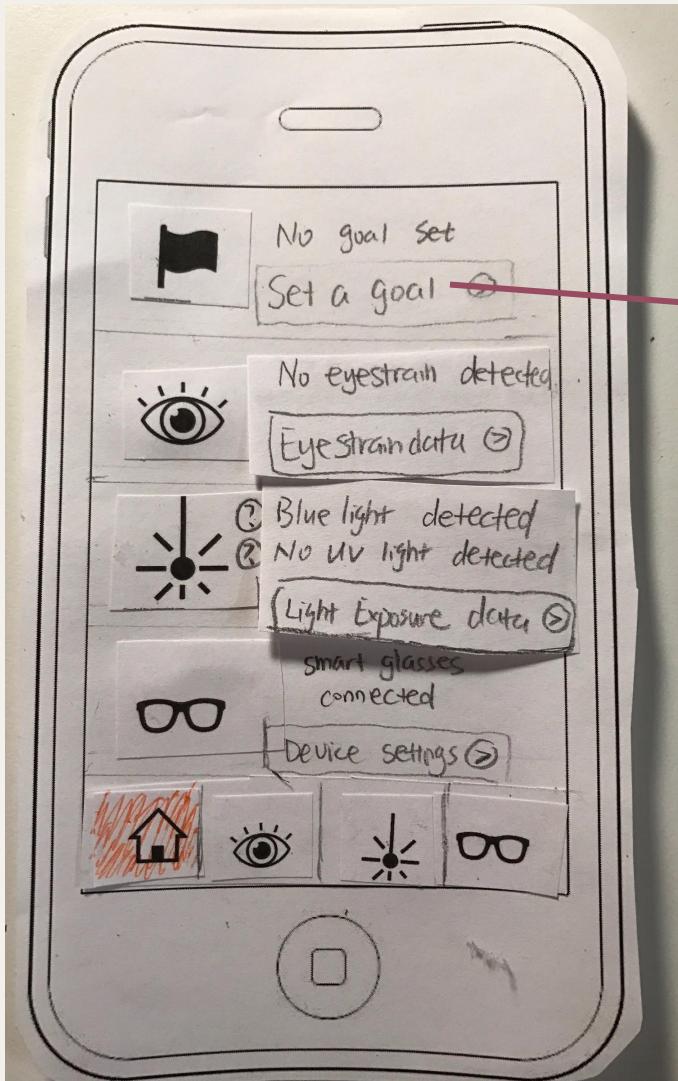
records UV  
and blue light  
exposure

auto senses  
light  
exposure

filter out UV  
and blue light

# task 1

reduce harmful light exposure



# task 1

reduce harmful light exposure

A hand-drawn wireframe of a mobile application interface. The screen shows a large eye icon at the top right. Below it is the question "What is your eye health goal?". Three options are listed with checkboxes:

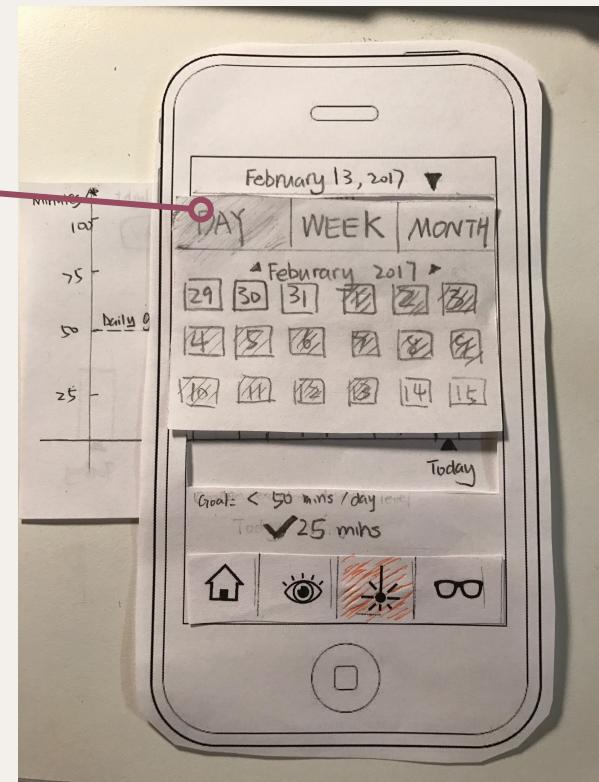
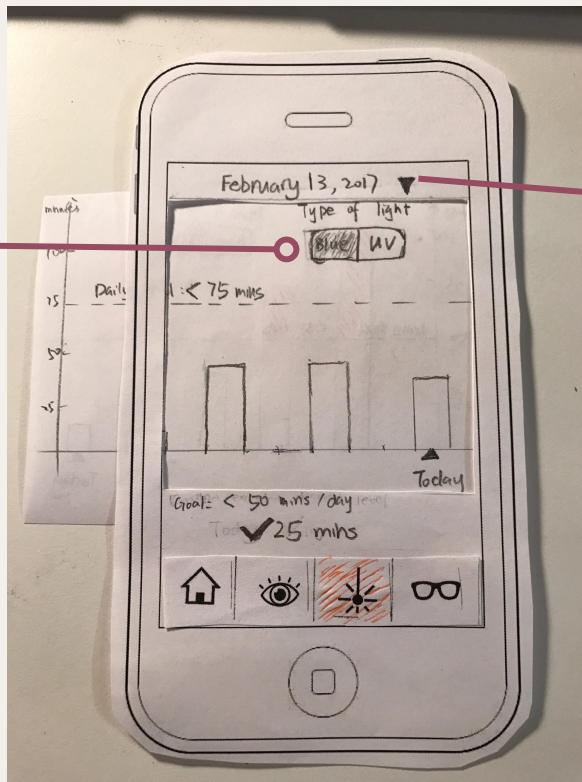
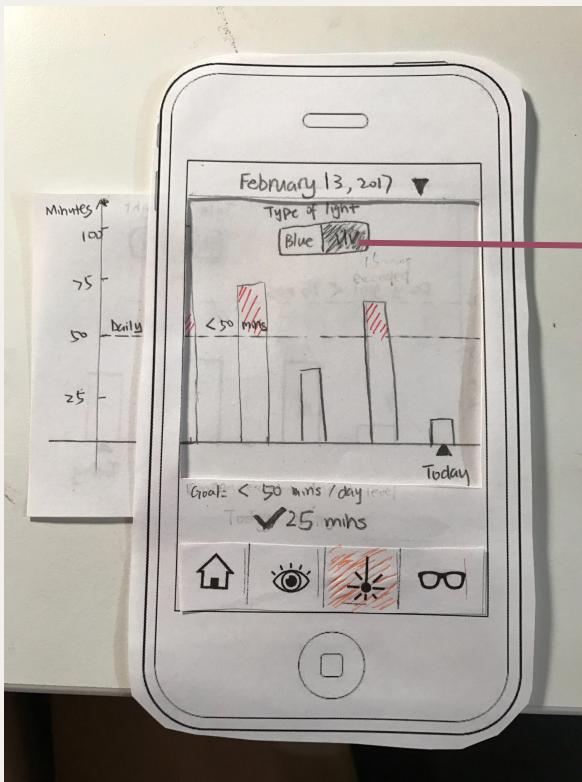
- (1)  Reduce Eye strain
- (2)  Decrease blue light exposure
- (3)  Decrease UV light exposure

A "NEXT" button is located at the bottom right. At the very bottom, there are four icons: a house, an eye, a sun, and glasses. On the left side of the screen, there are three separate notes with pink circles and arrows pointing to the corresponding sections in the app:

- "Eye strain can cause symptoms like eye discomfort, headaches and difficulty focusing"
- "Blue light is emitted from many sources, such as indoor lighting and device screens. Overexposure can disrupt the sleep cycle."
- "UV light is ultraviolet rays from the sun, which can cause irritation and macular degeneration in the eyes"

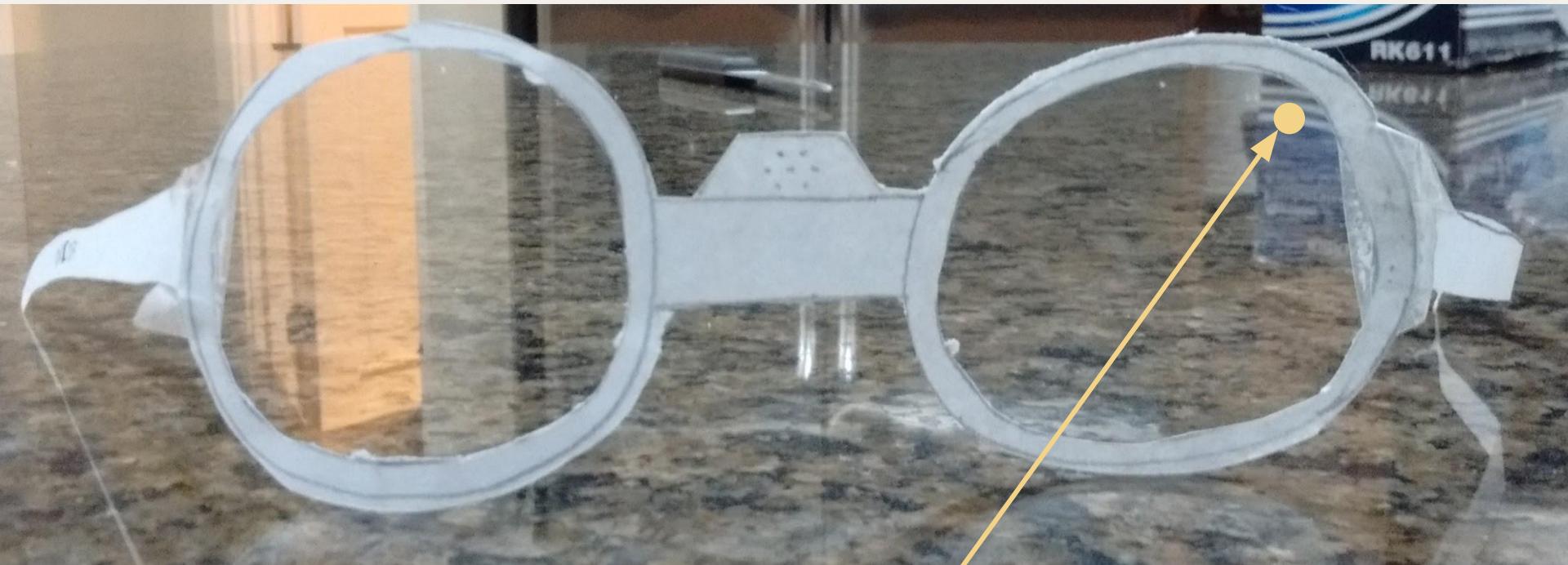
# task 1

reduce harmful light exposure



# task 2

reduce eye strain



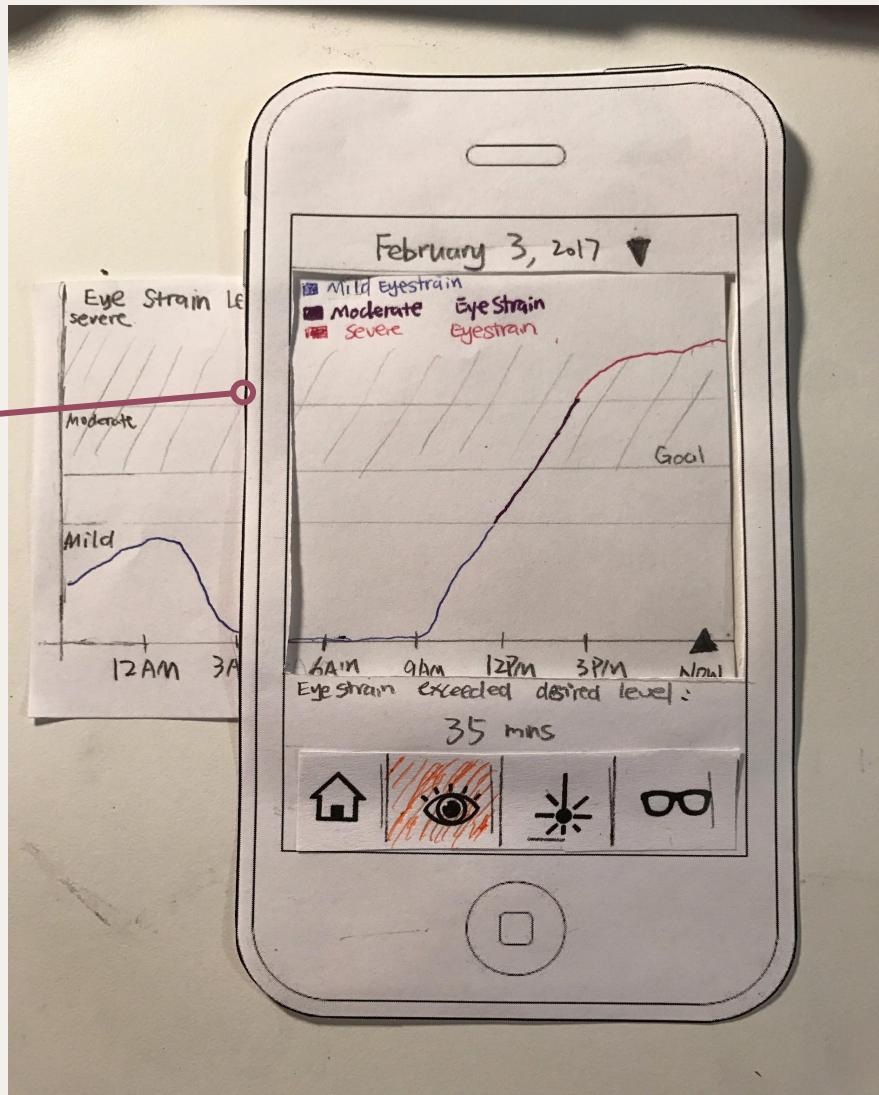
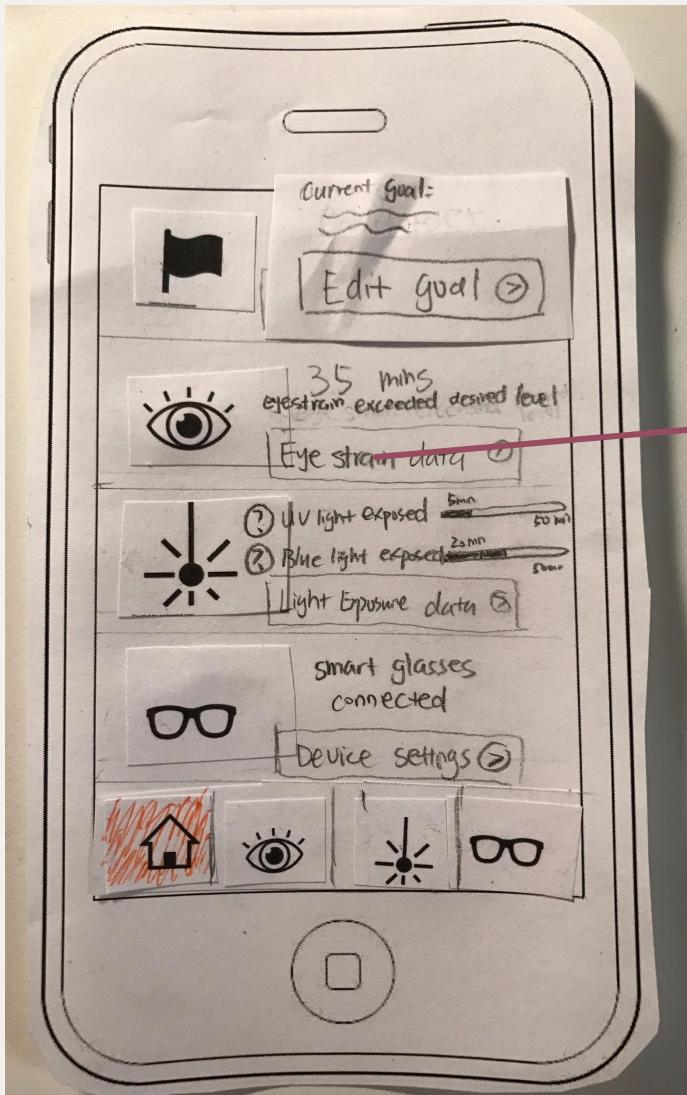
tracks eye movement

indicator that reminds user to take a break

indicator gets more red the longer a user goes w/o a break

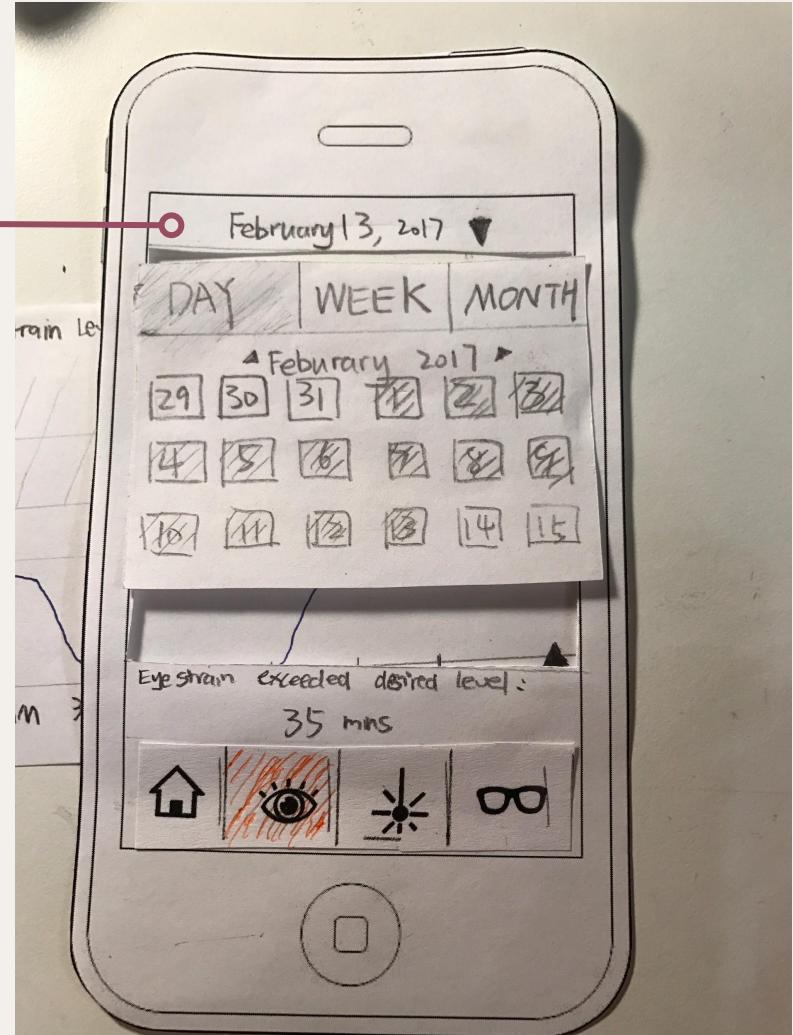
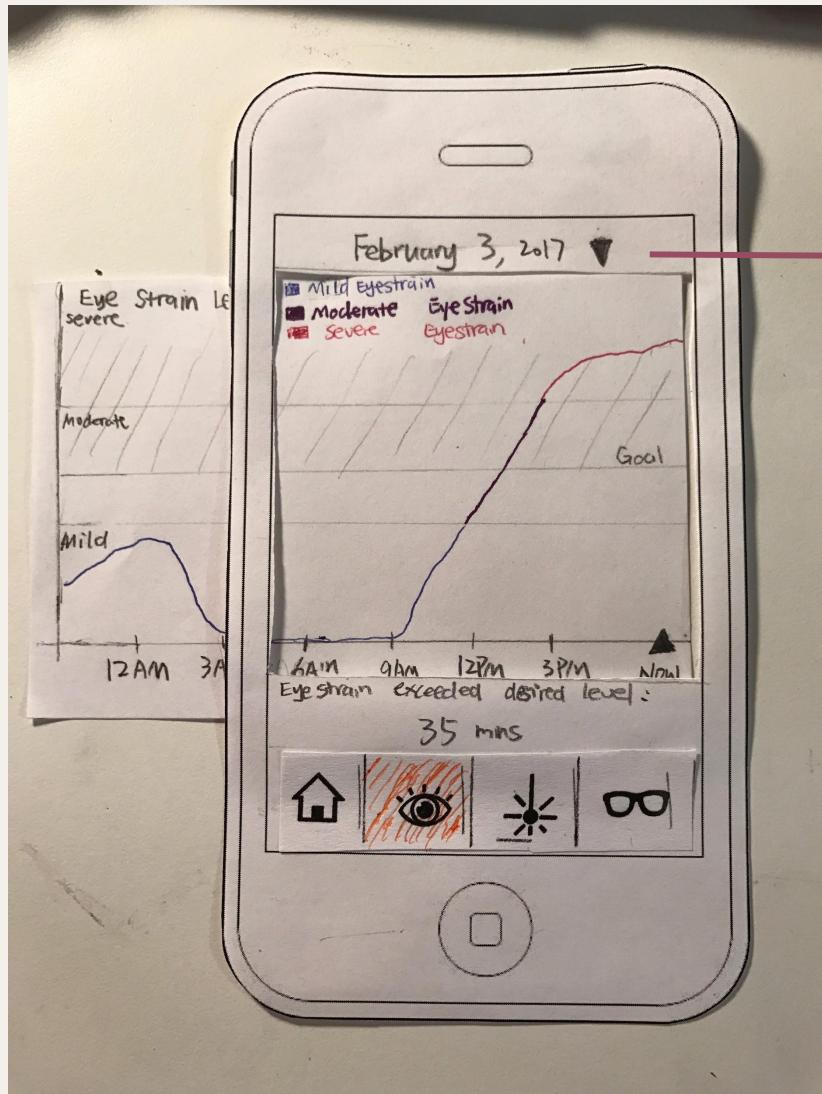
# task 2

reduce eye strain



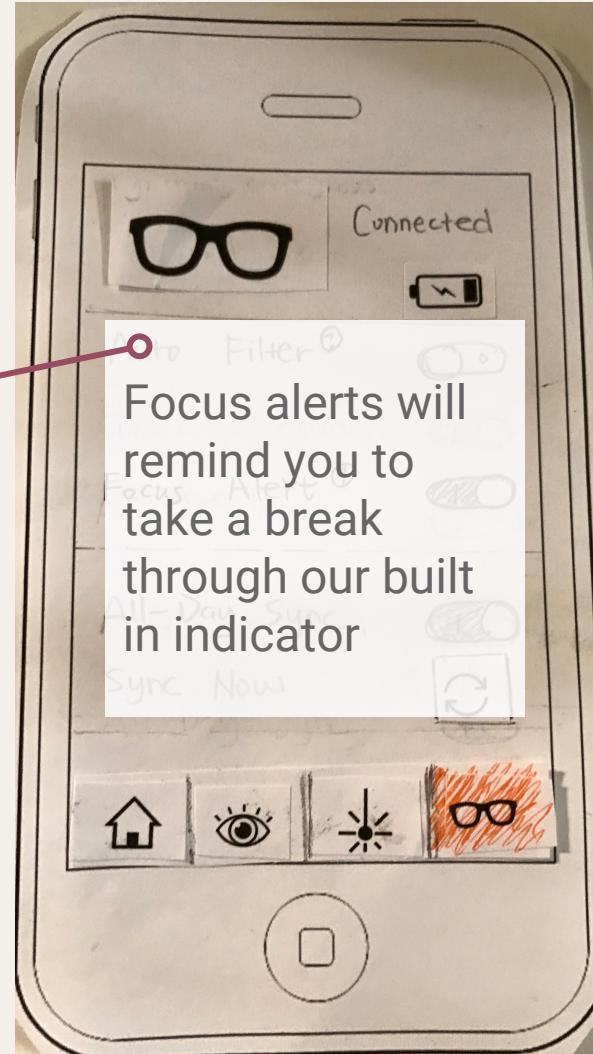
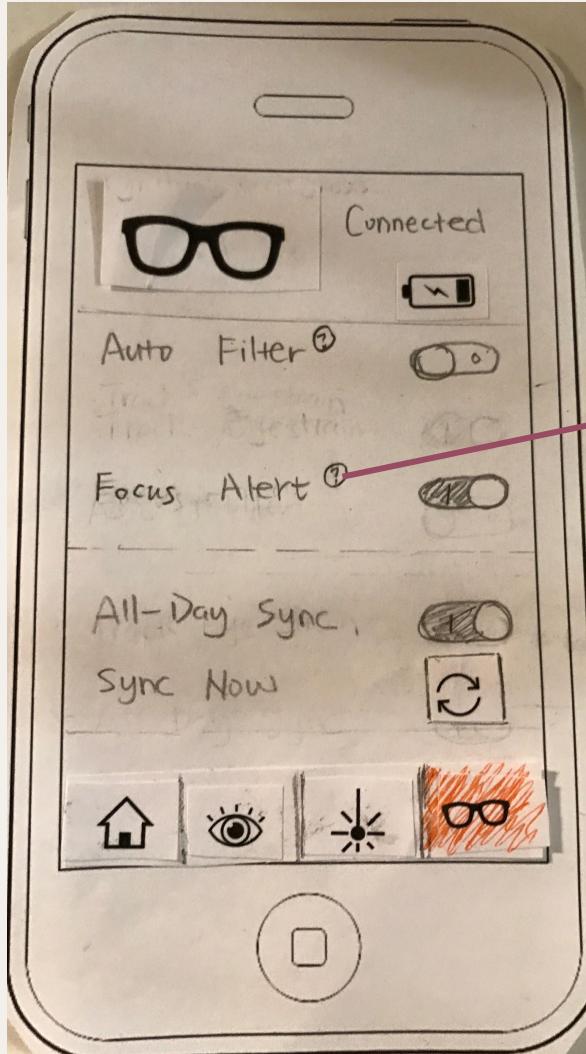
# task 2

reduce eye strain



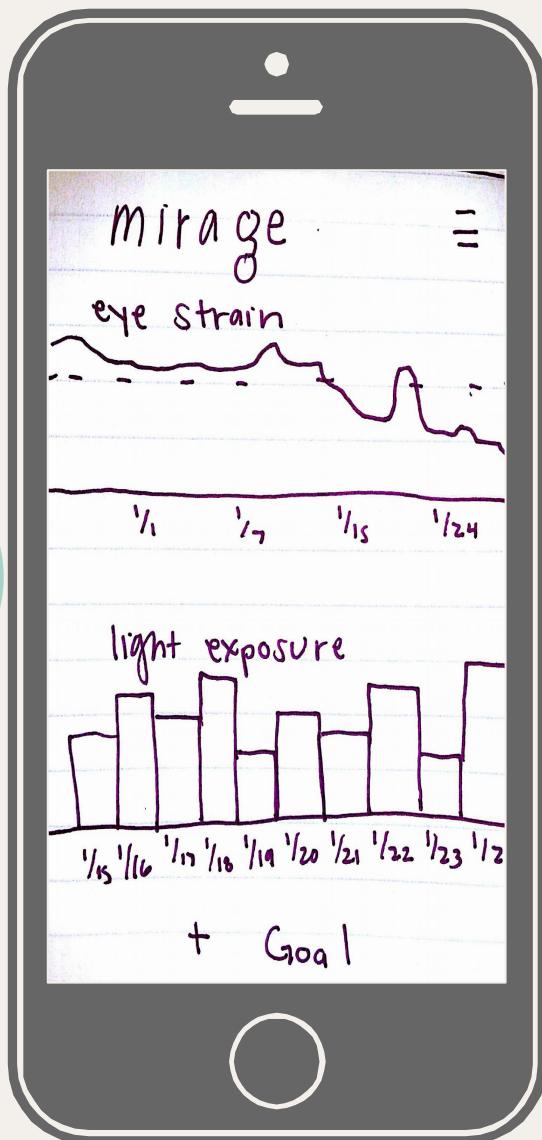
# task 2

reduce eye strain



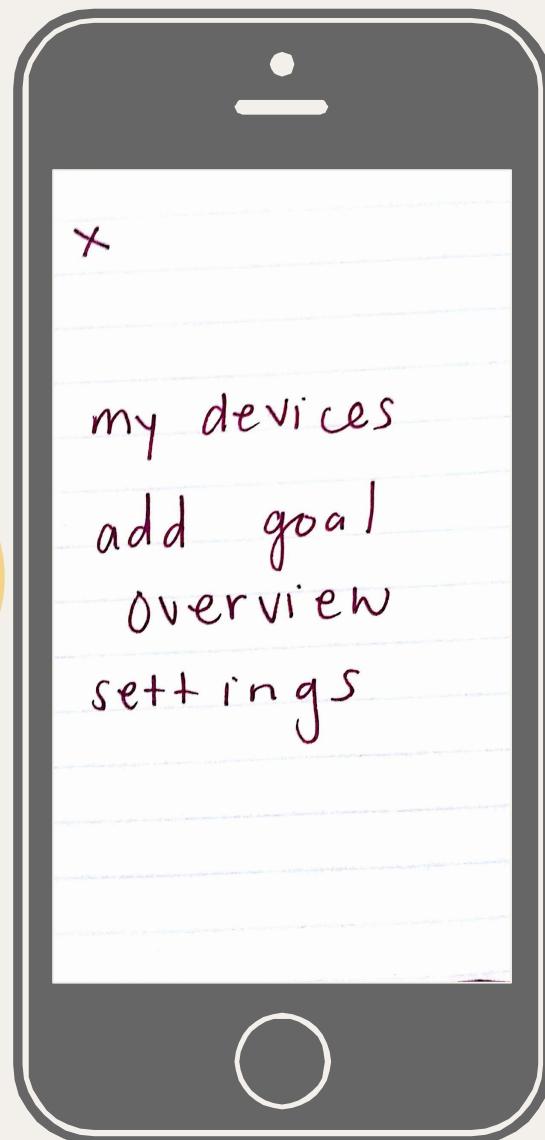
# home screen

next iteration



focuses  
on simple  
design

goal  
oriented,  
removed  
nav bar

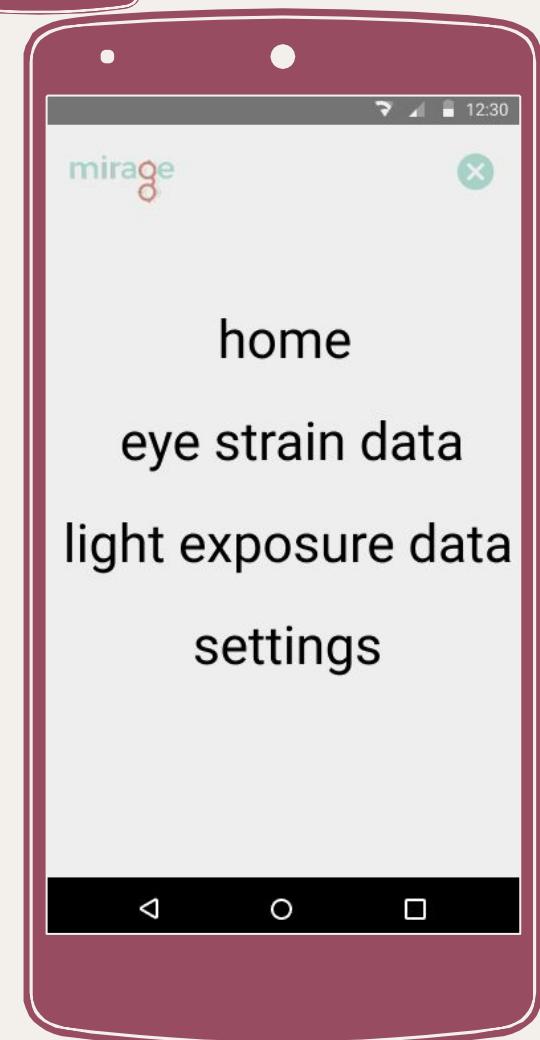
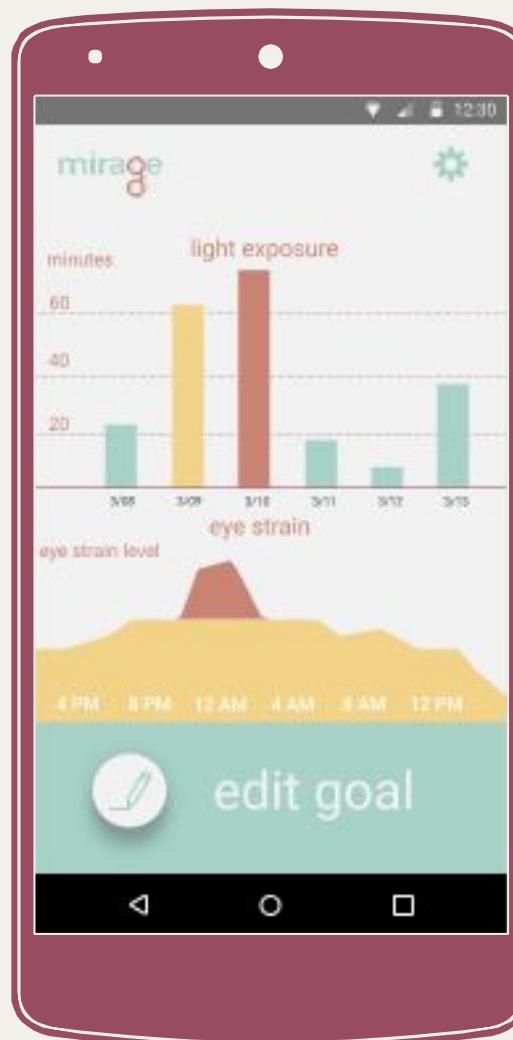
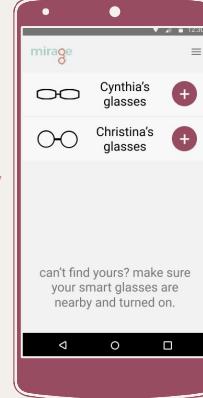
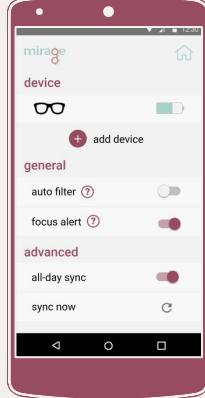
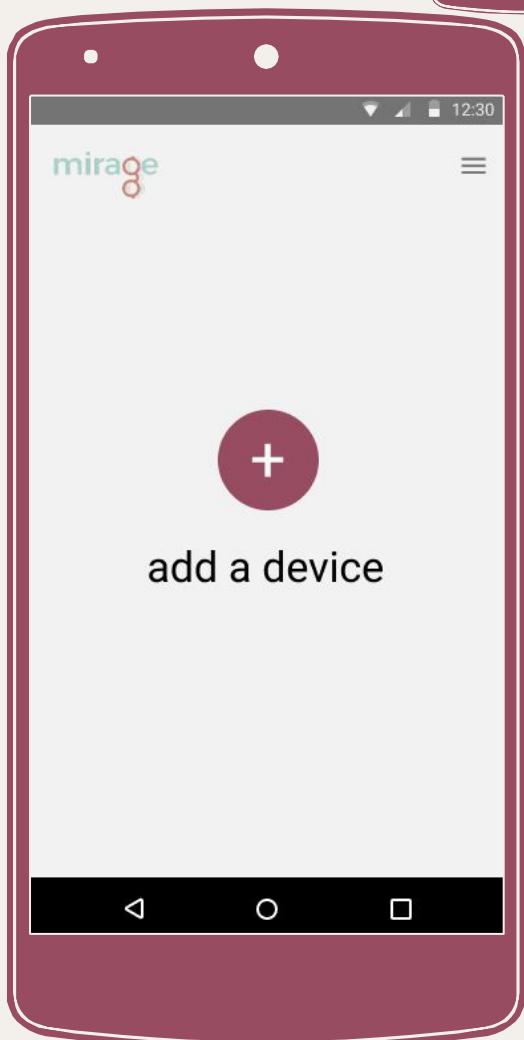


based on  
user  
research  
feedback

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Digital Mockup

# overview



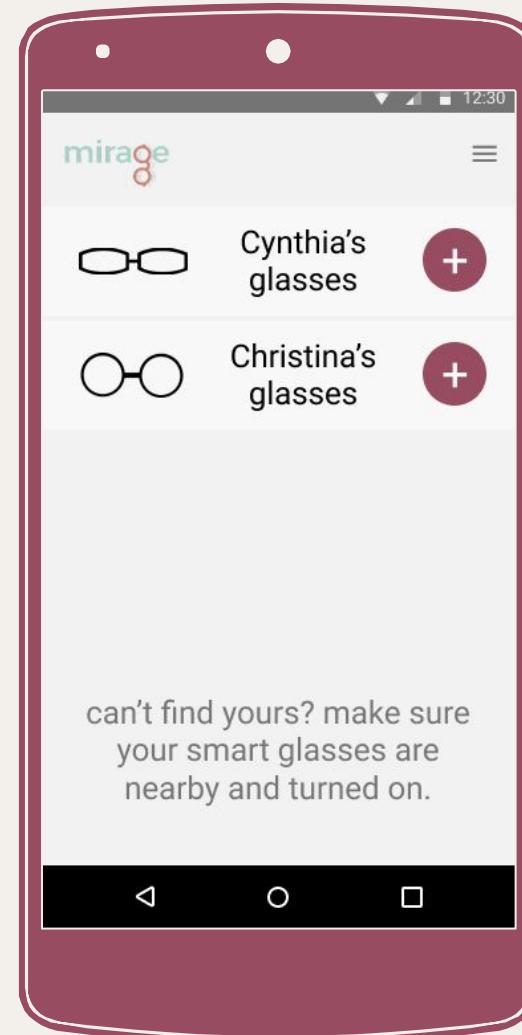
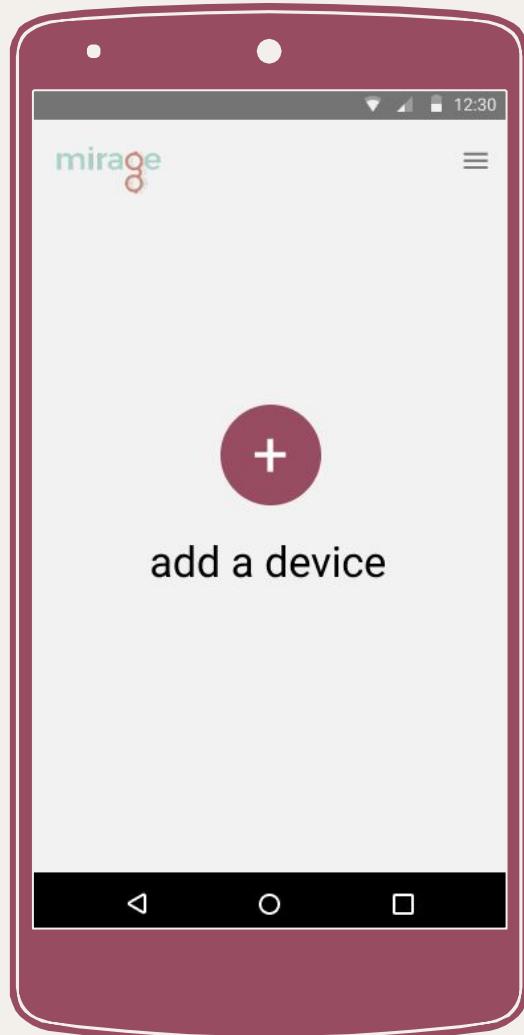
home

eye strain data

light exposure data

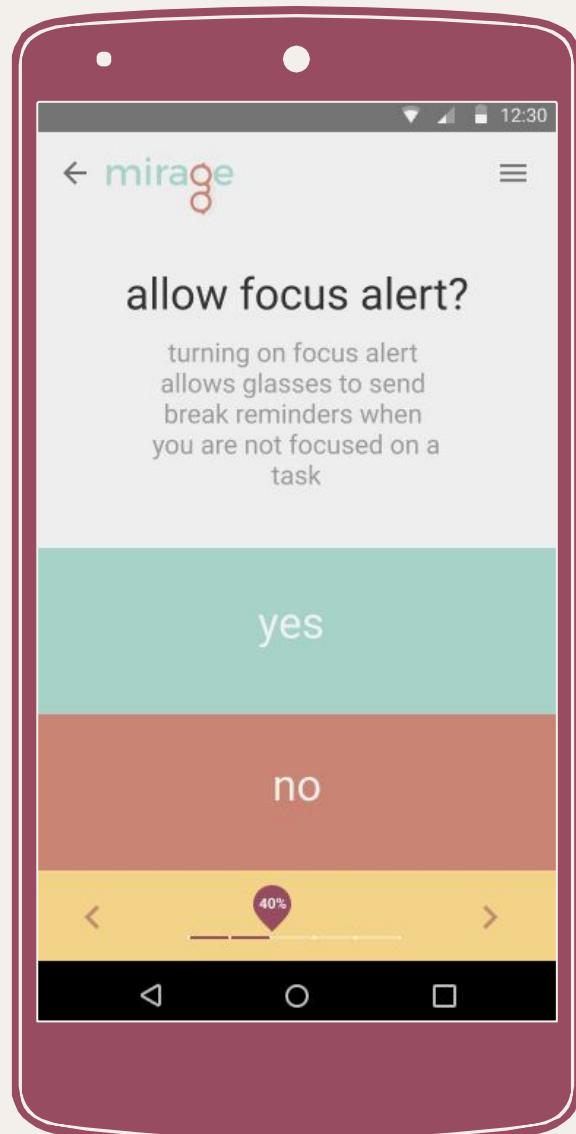
settings

# let's start



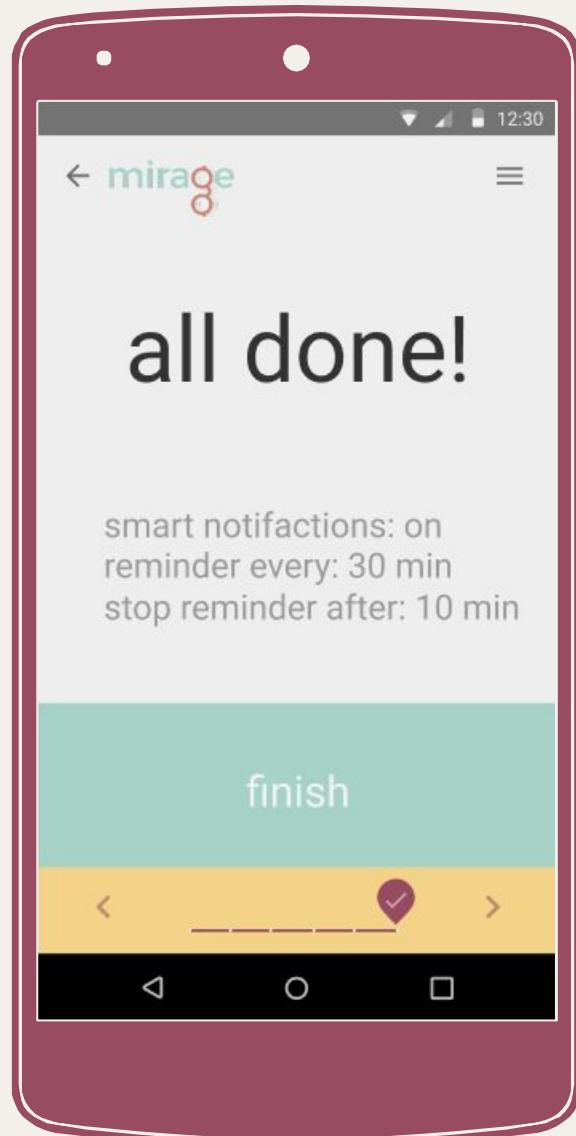
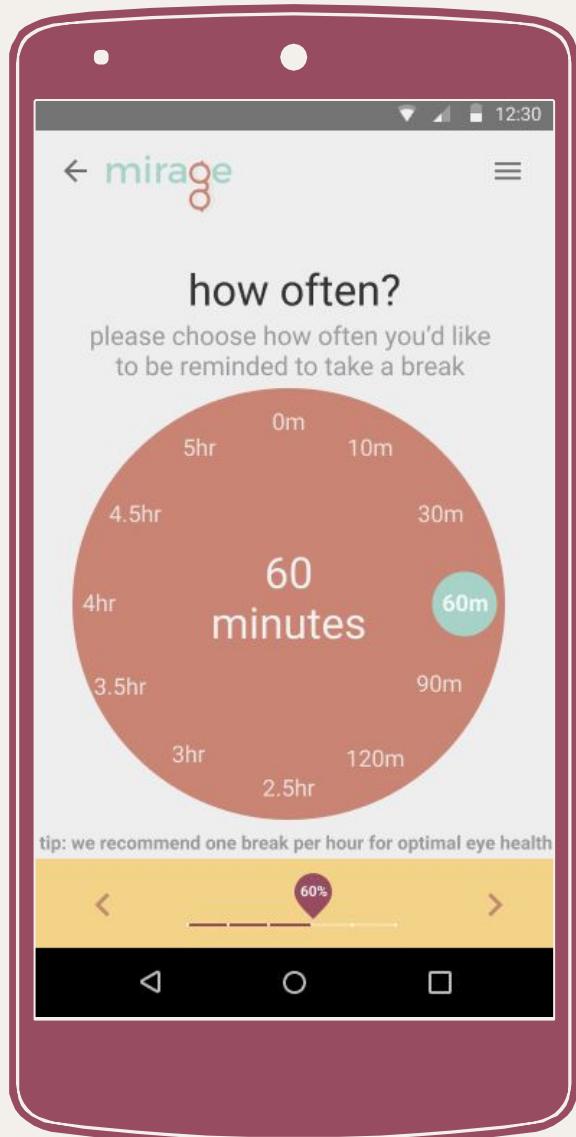
# task 1

reduce eye strain



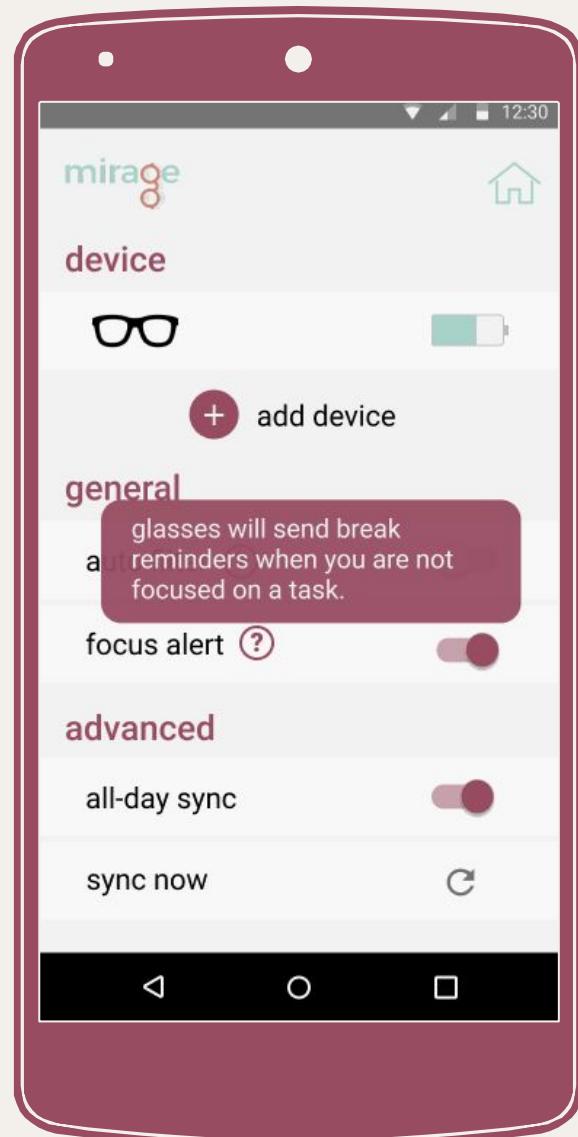
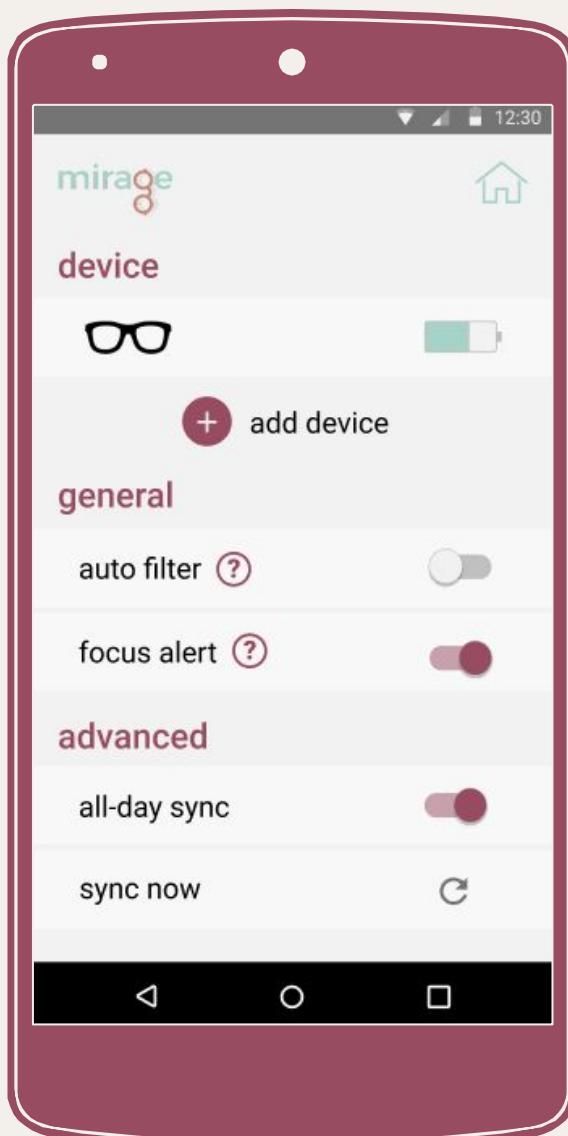
# task 1

reduce eye strain



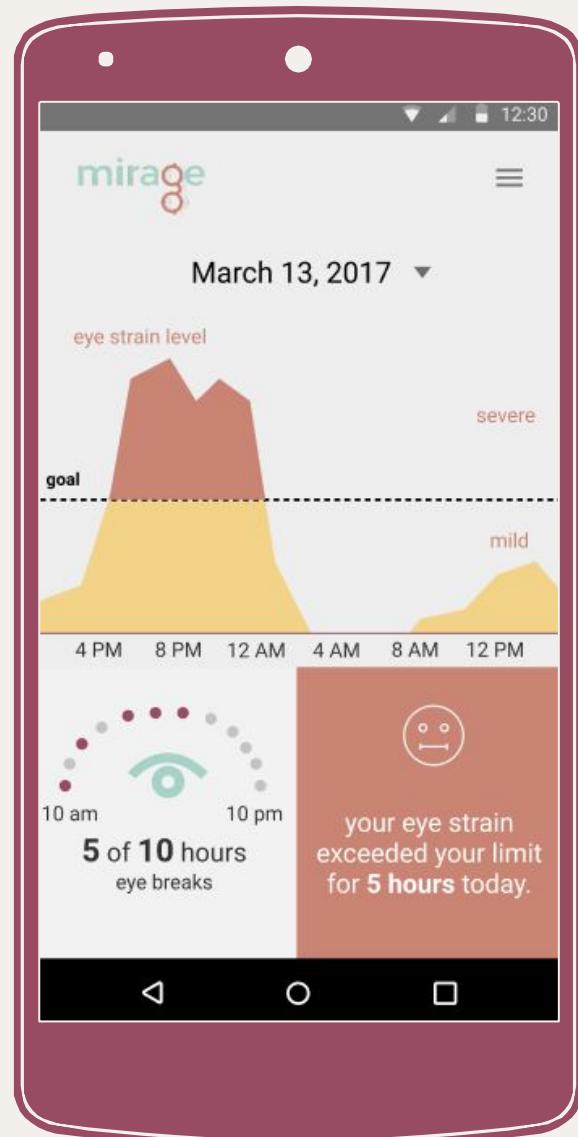
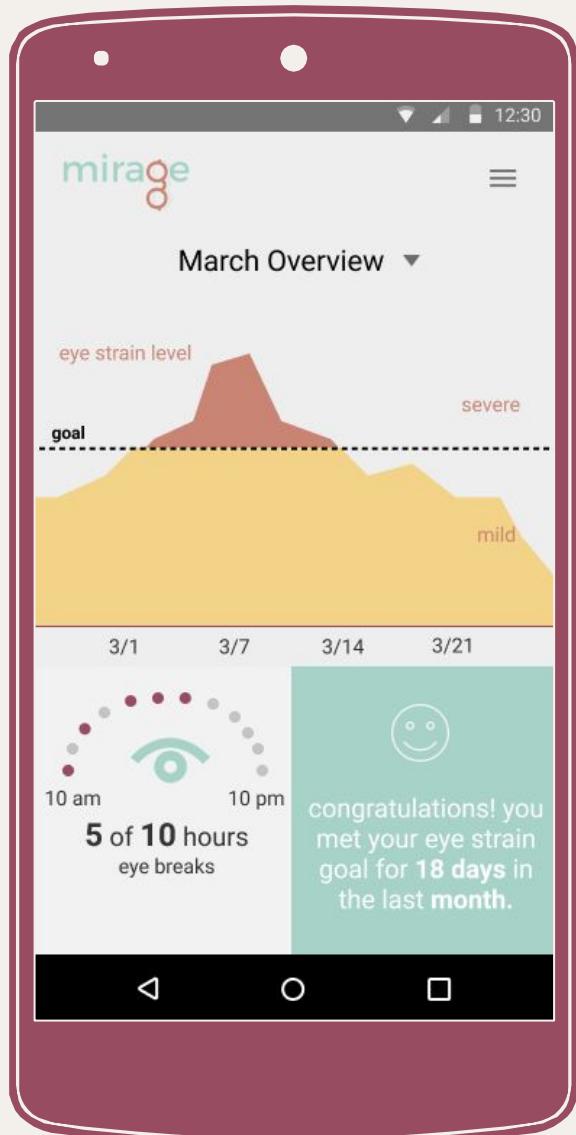
# task 1

reduce eye strain



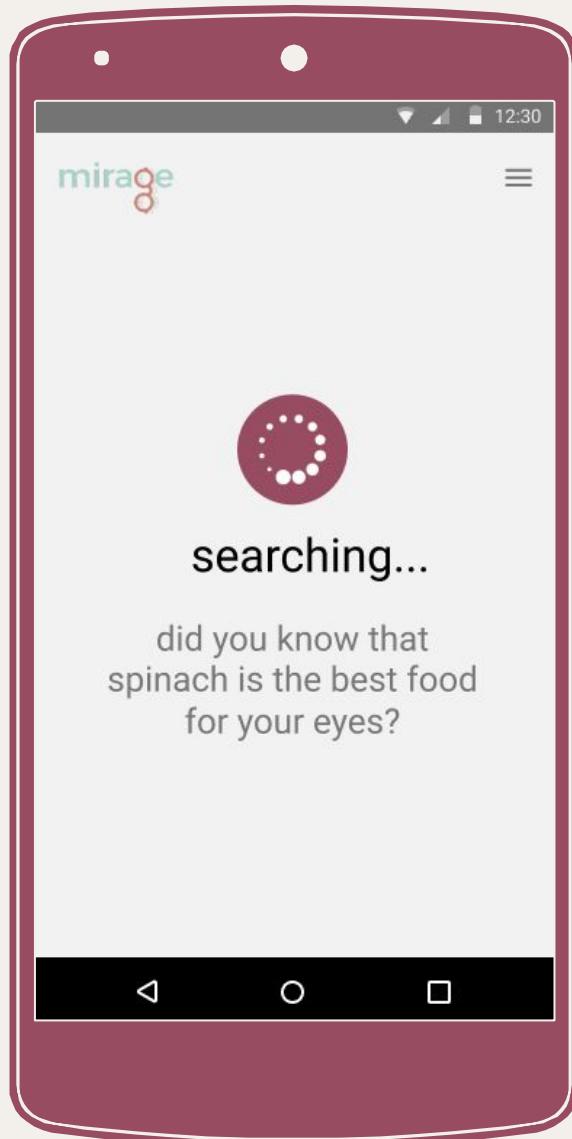
# task 1

reduce eye strain



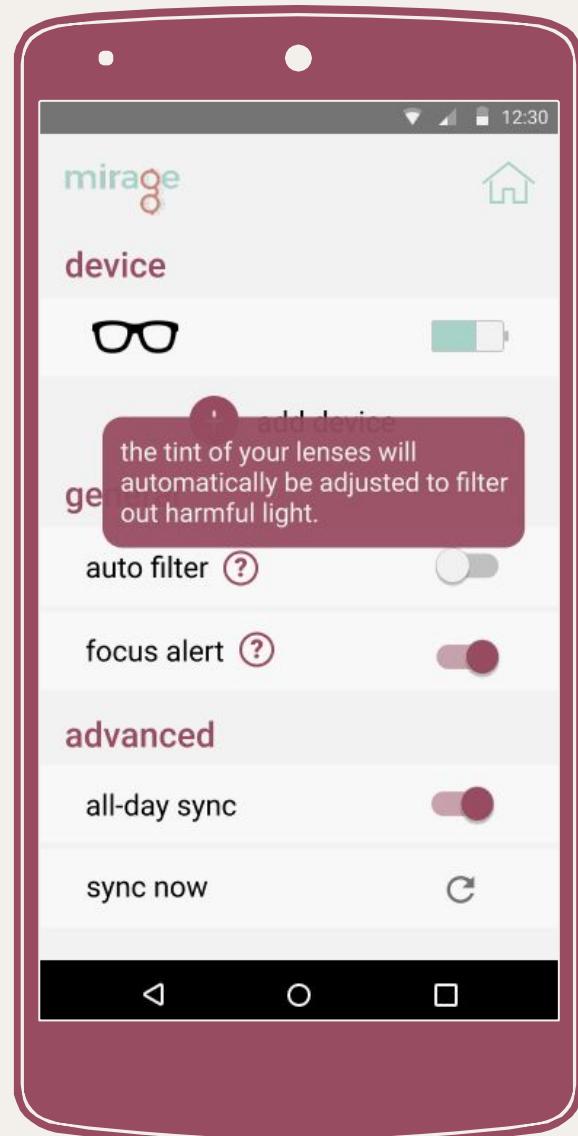
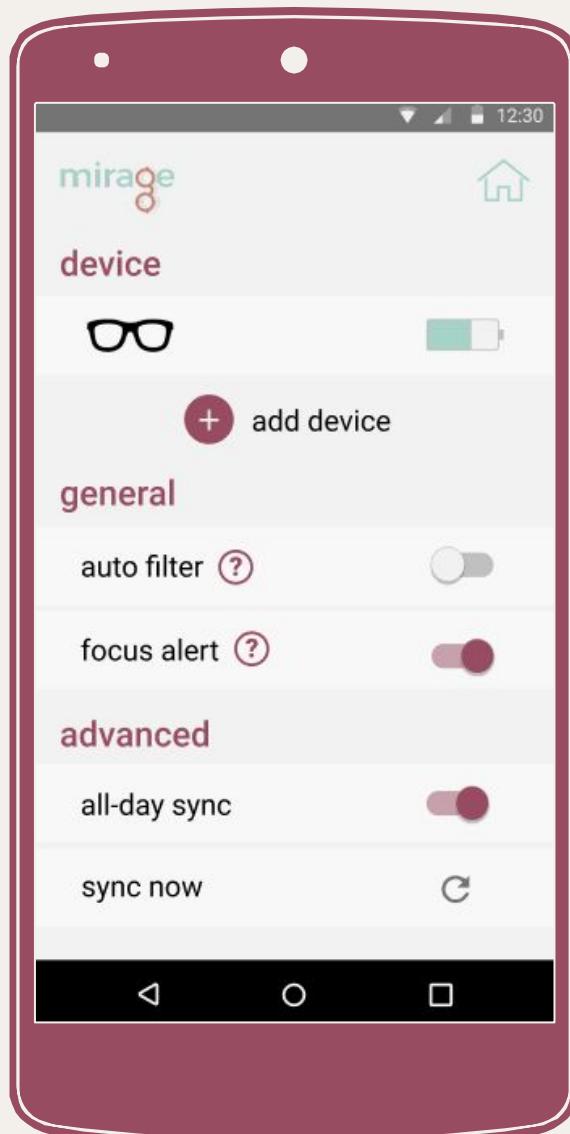
# task 1

reduce eye strain



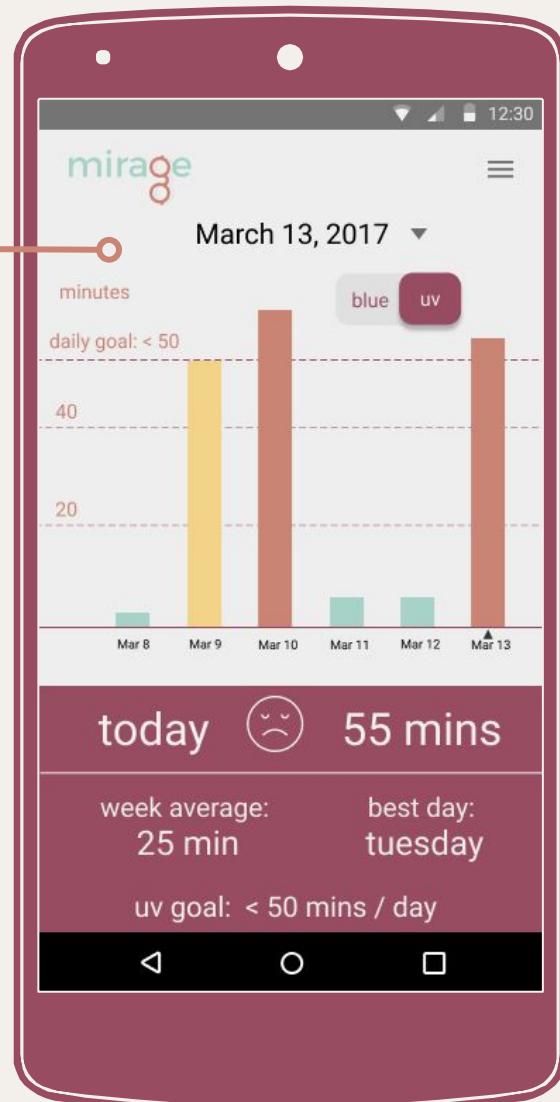
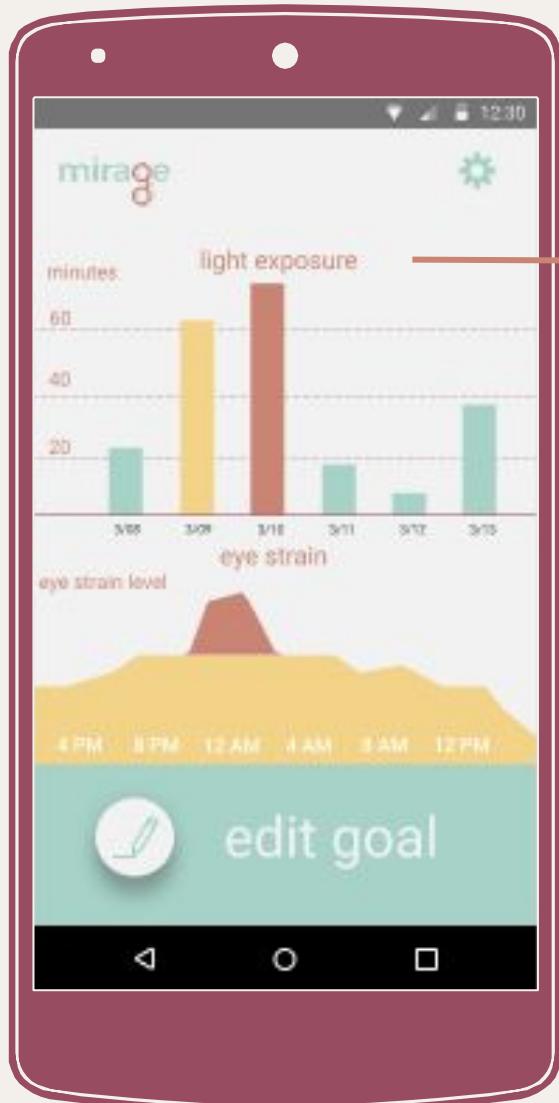
# task 2

reduce harmful light exposure



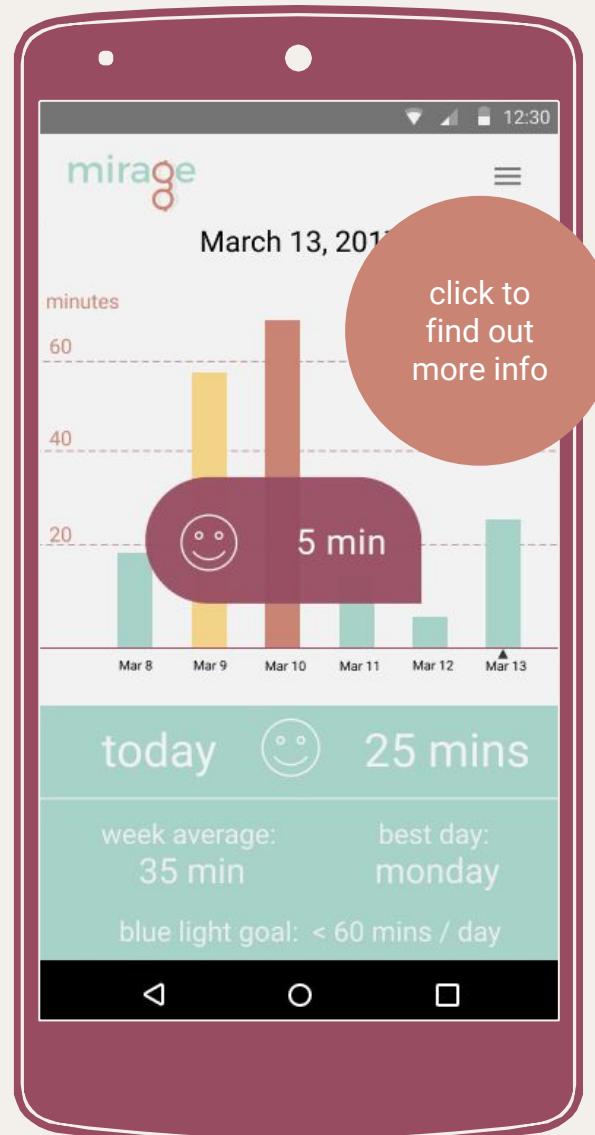
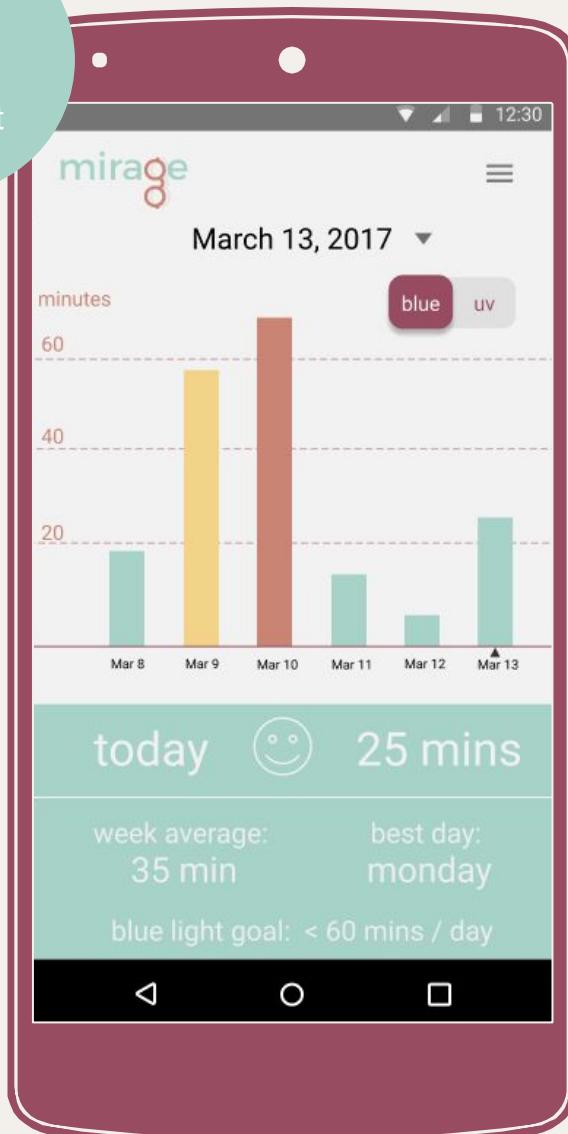
# task 2

reduce harmful light exposure



# task 2

reduce harmful light exposure



toggle  
between  
UV and  
blue light

click to  
find out  
more info

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# Reflection

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# reflection

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- Design with intent - every design choice needs to have a reason
- Research, refine, research, refine
- Don't be afraid to try new things



see your full potential  
**mirage**