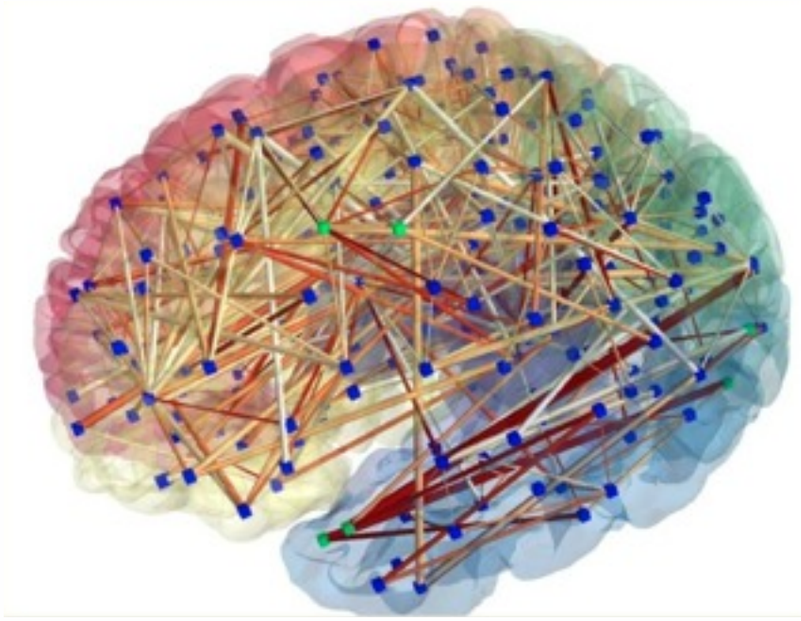
Brainability

FOCUS ON FOCUS

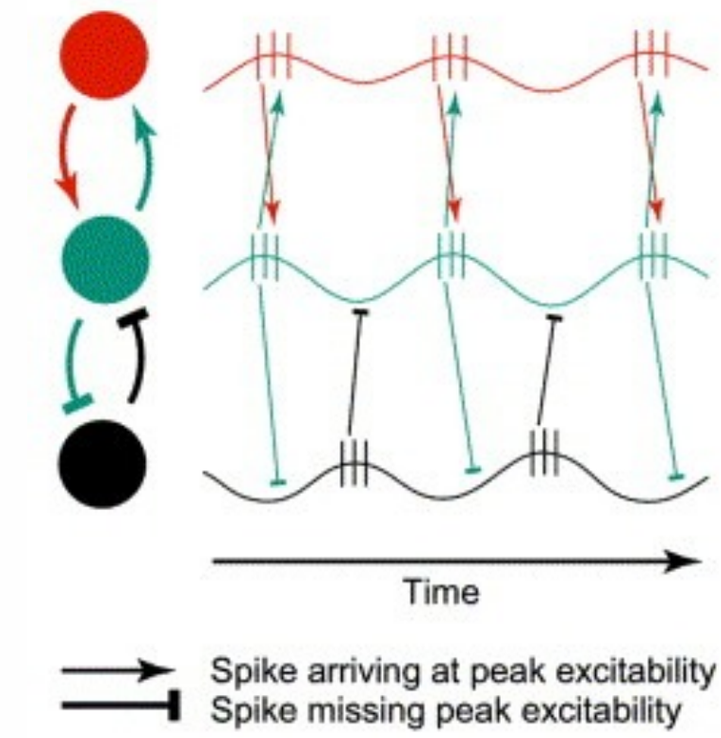
Overview

- Balance your left and right brain
- Real-time feedback on coherence across and between the two halves of your brain
- Coherence is a measure of focused attention
- Productivity app

Coherence

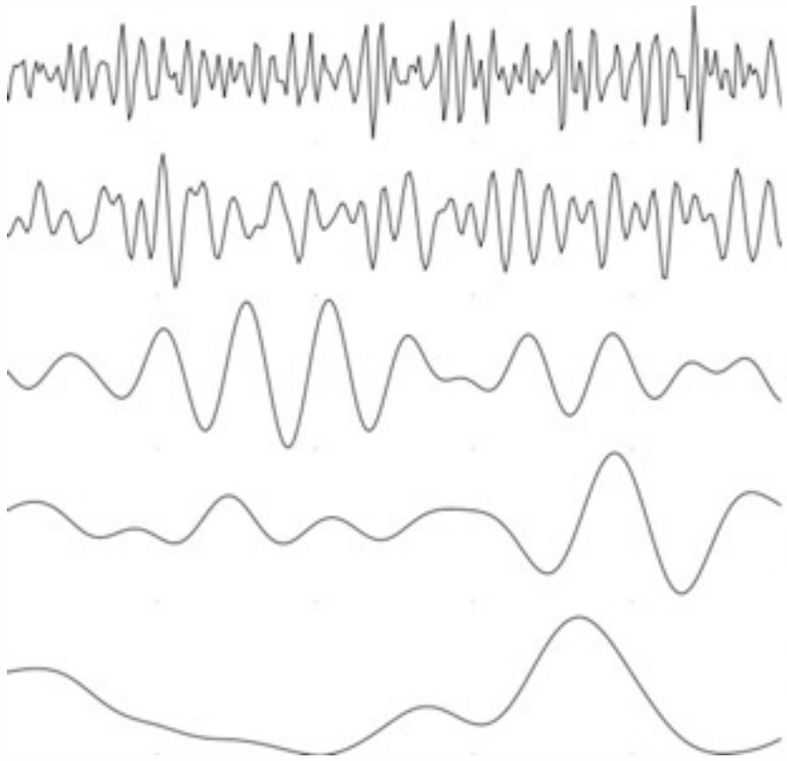


- Long range brain coherence during complicated cognitive tasks.
- Left and right hemisphere have complementary roles.
- Dominance of one side of the brain leads to inefficiency. Must have balance.



Platform

- Built on Emotiv Insight API
- Pair-wise, inter/intra-hemisphere & global coherence
- Alpha, Beta, & Gamma power



User Stories

- John procrastinates a lot. John takes a lot of “breaks”. John is distracted. John can’t believe his time flies by that fast!

- Alice works at her office for hours straight without breaks. She feels she doesn’t have time for breaks. She knows she could be more productive. How can she plan better?

- Tommy has a hard time concentrating in school. He takes longer than others to finish an assignment. He gets in trouble for not paying attention in class. What’s going on inside of Tommy’s head? When does he concentrate the best?

Productivity App

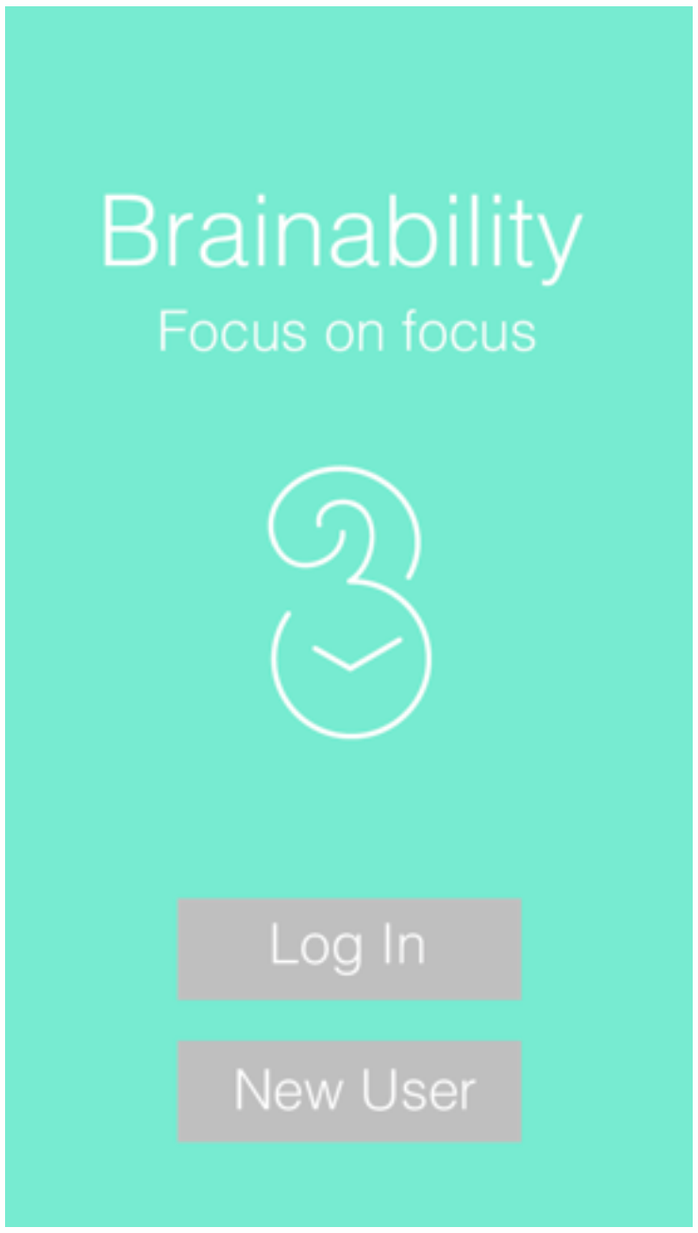
1. Pre-work thought exercises: induce brain balance

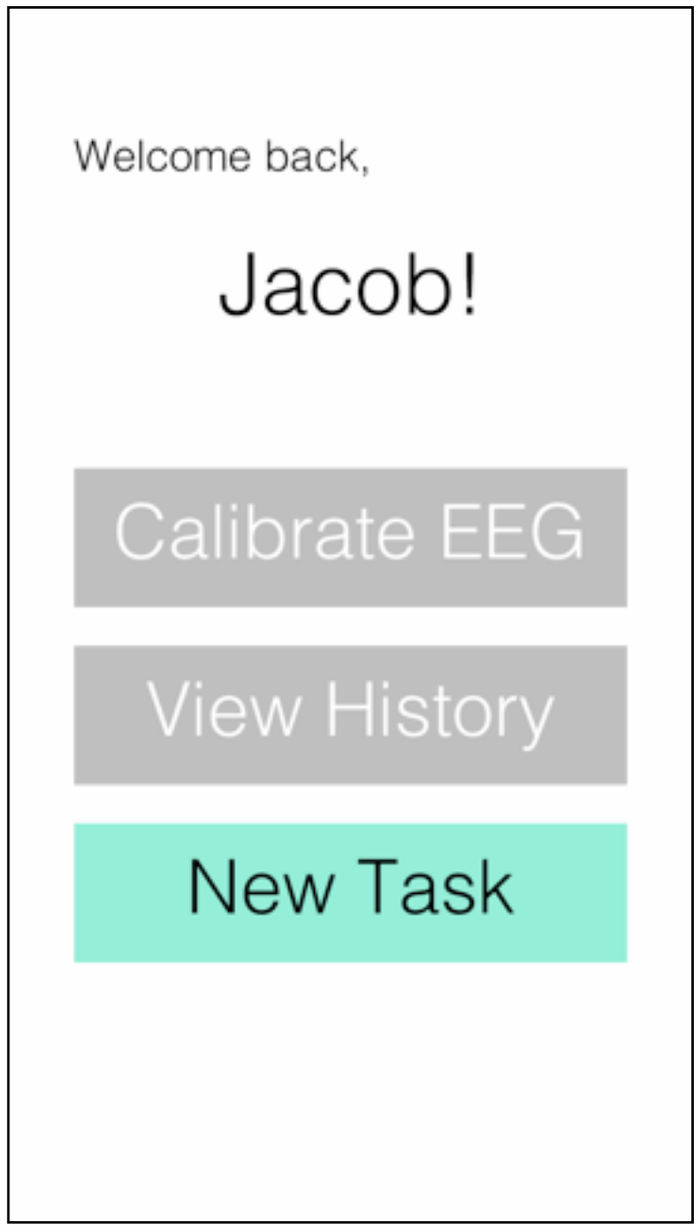
2. Work, then rest: start with a diagnostic time and build upwards

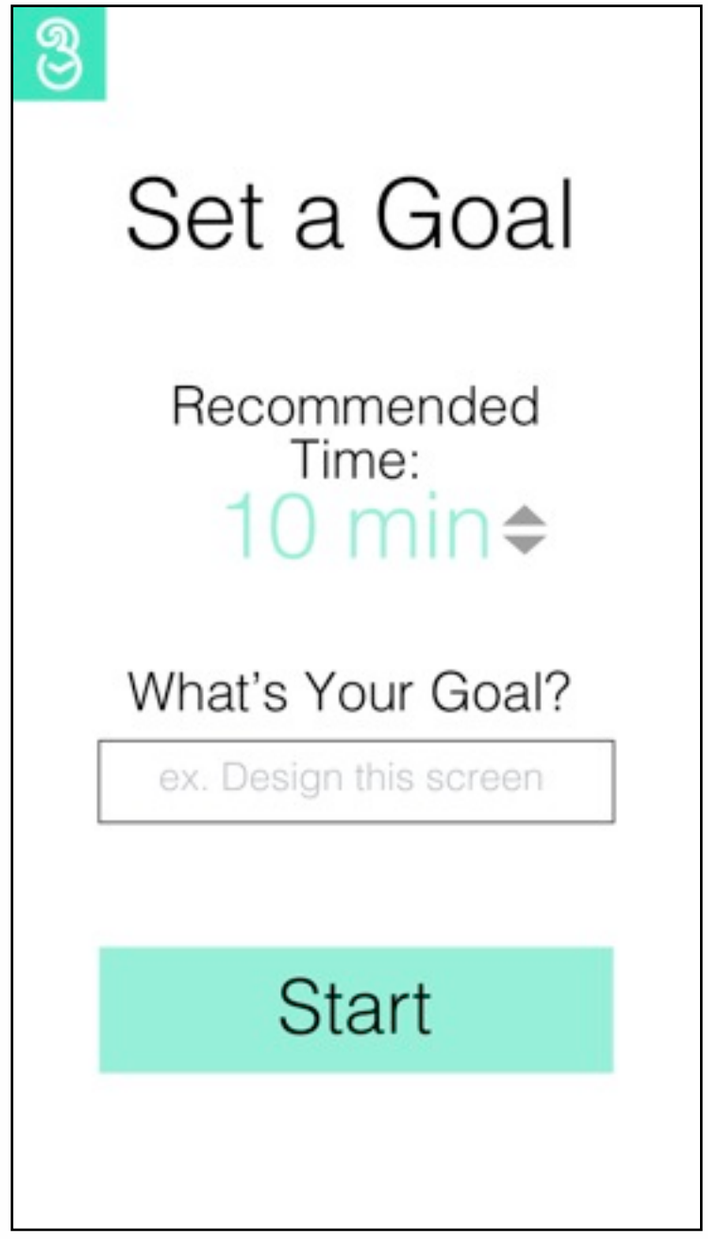
3. Data analysis displayed to the user: summary of user performance

4. App trains user to increase focus over time

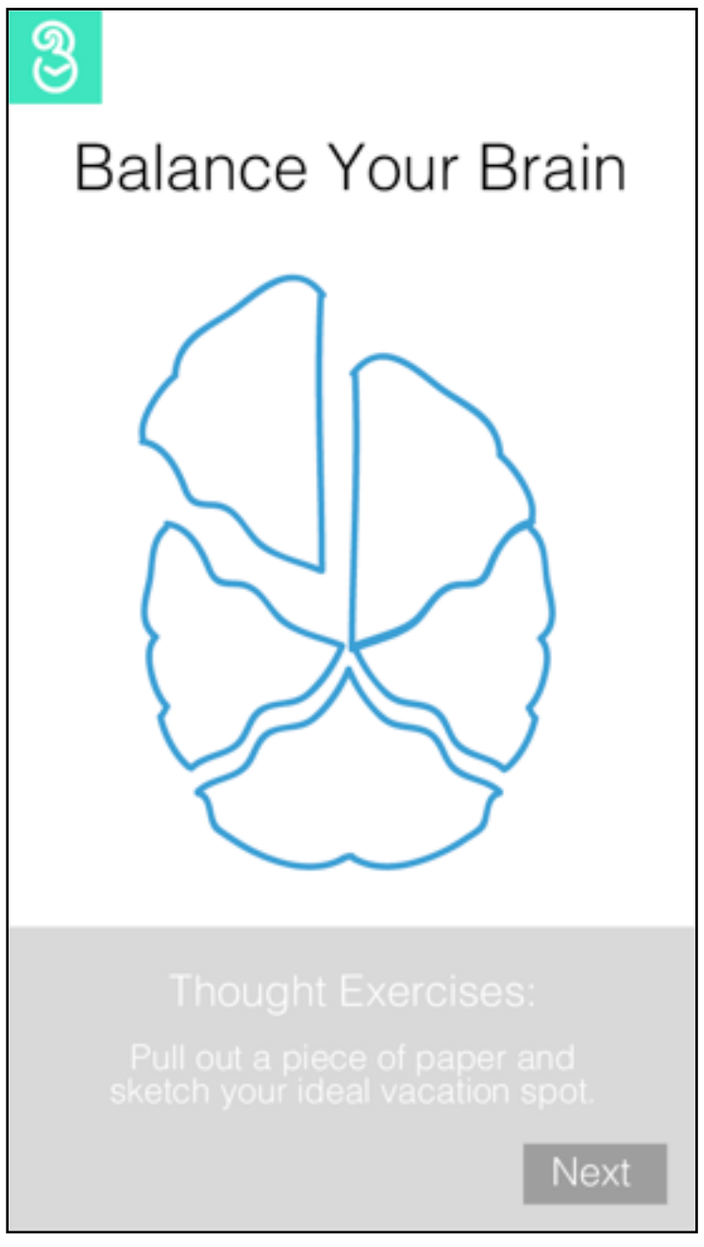
Wire Frames

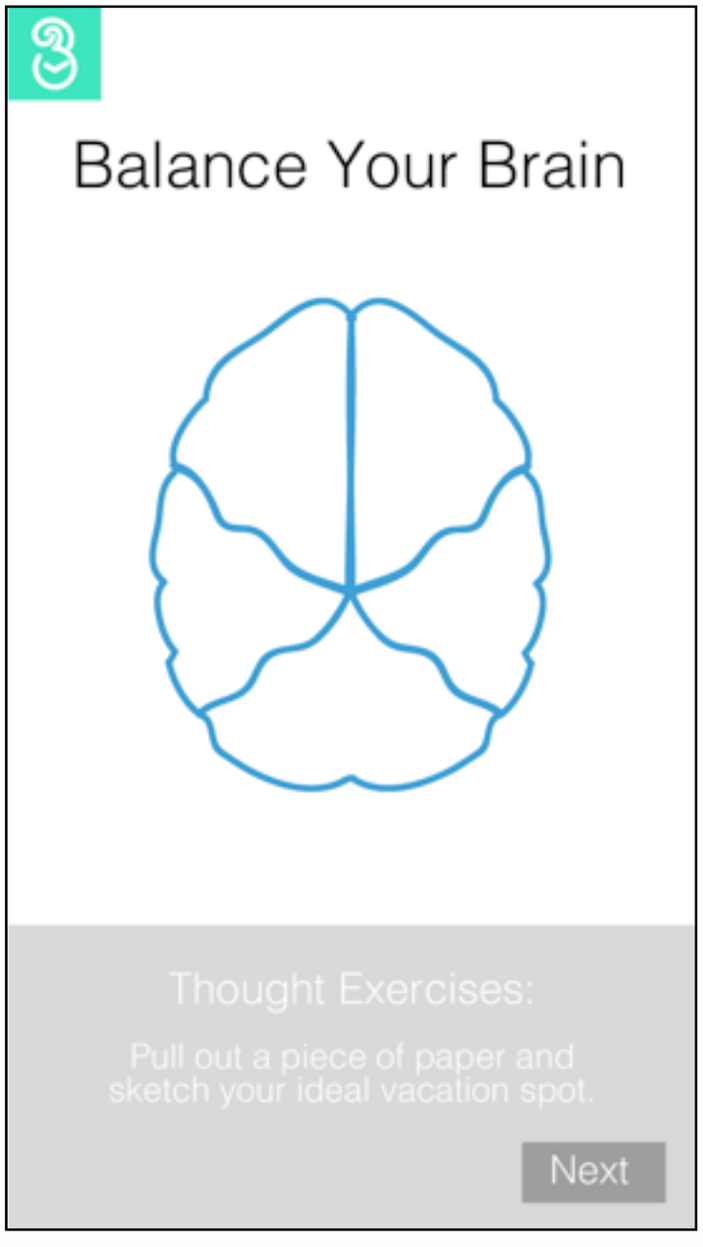

Brainability
Focus on focus
Log In
New User


Welcome back,
Jacob!
Calibrate EEG
View History
New Task


Set a Goal
Recommended Time:
10 min
What's Your Goal?
ex. Design this screen
Start

Wire Frames


Balance Your Brain
Thought Exercises:
Pull out a piece of paper and sketch your ideal vacation spot.
Next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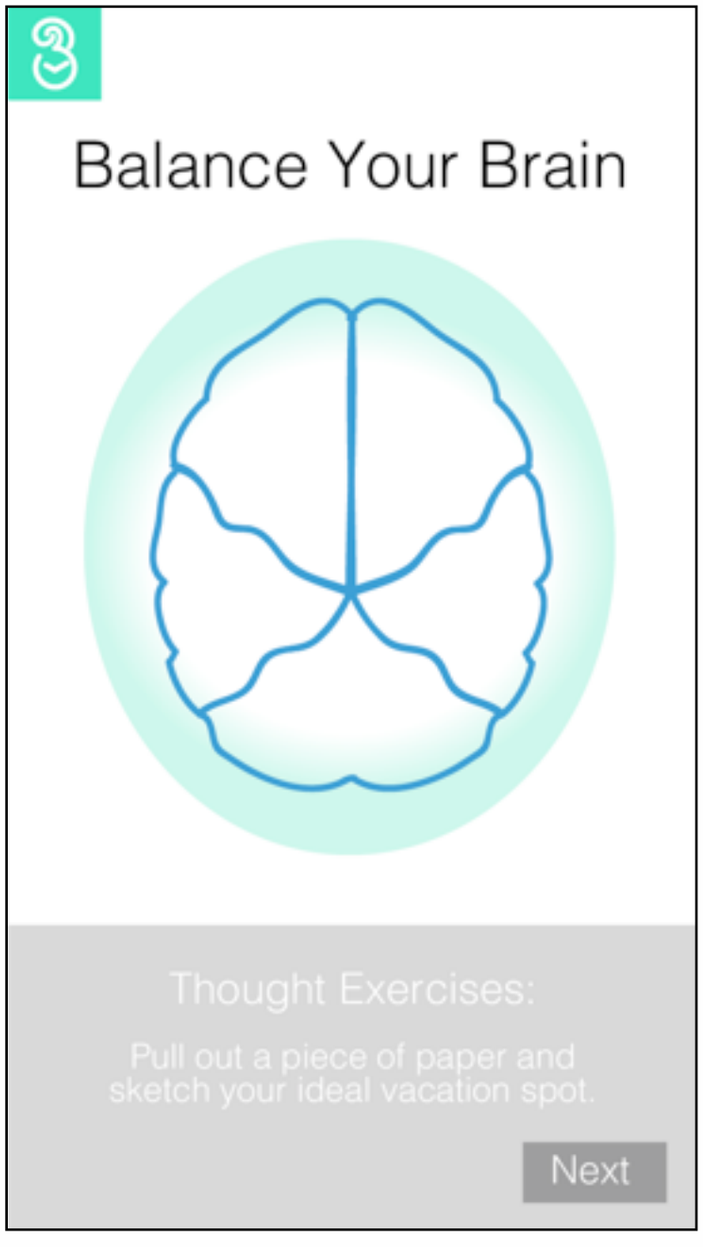
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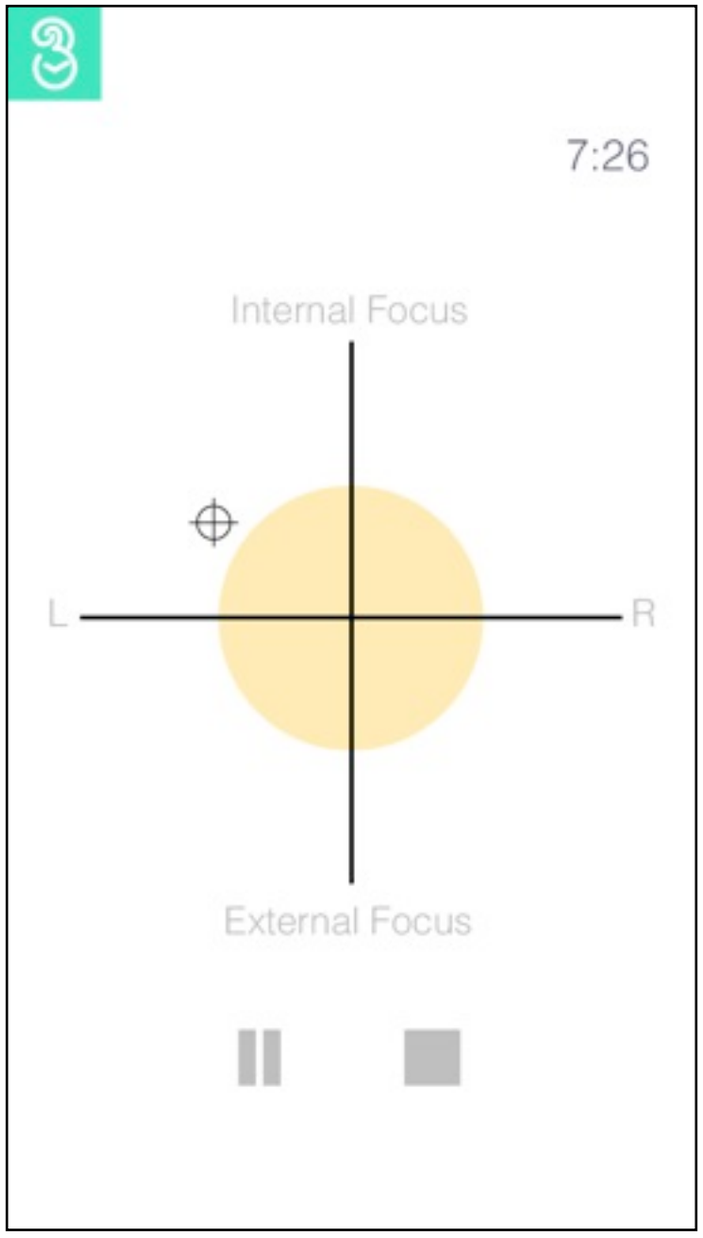
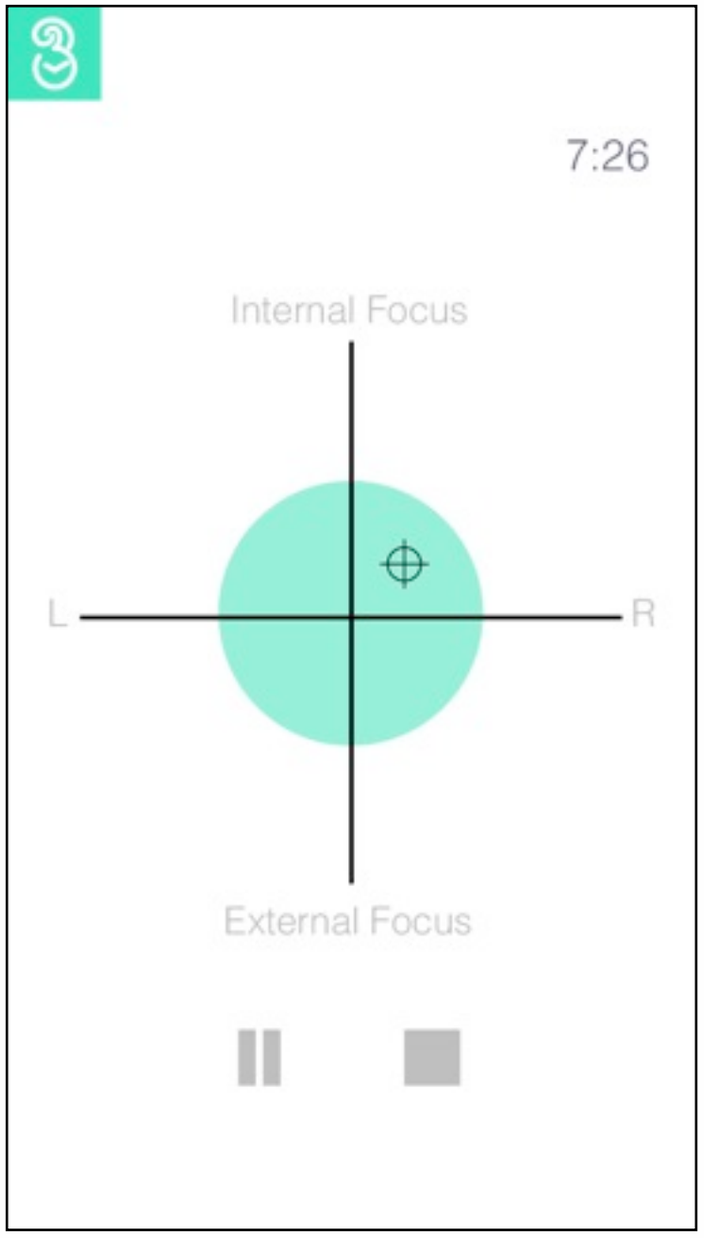

7:26
Internal Focus
L
R
External Focus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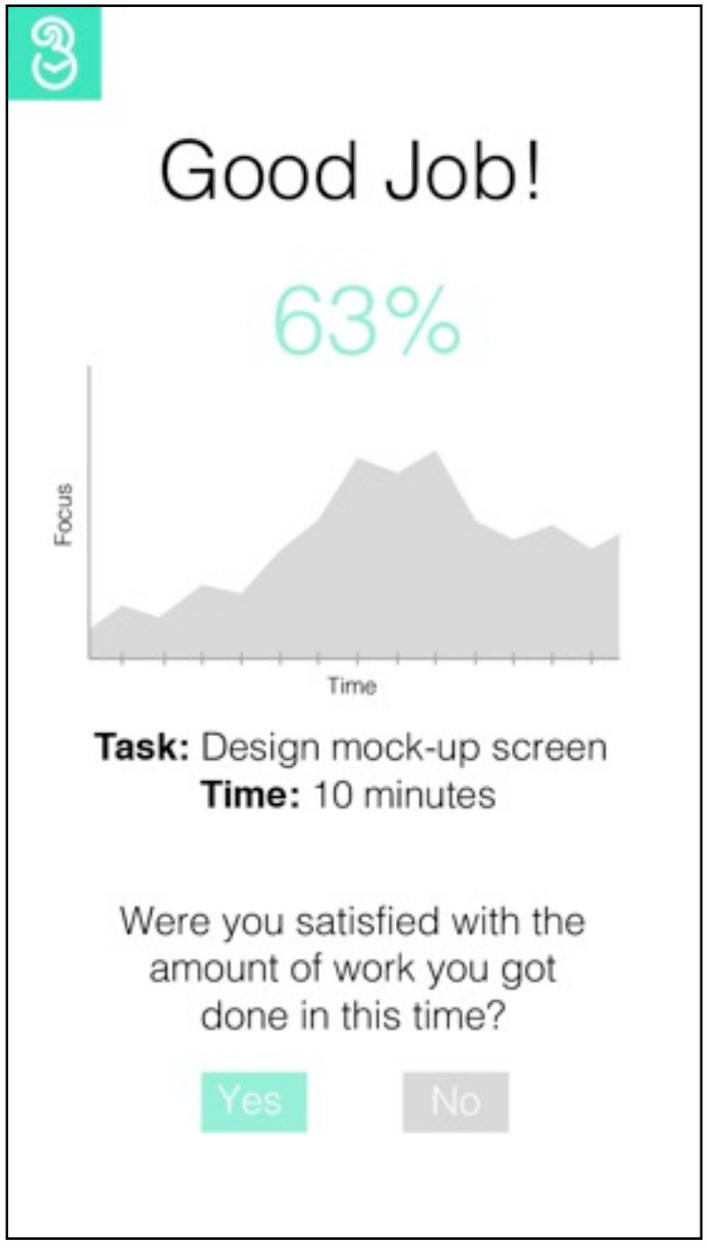
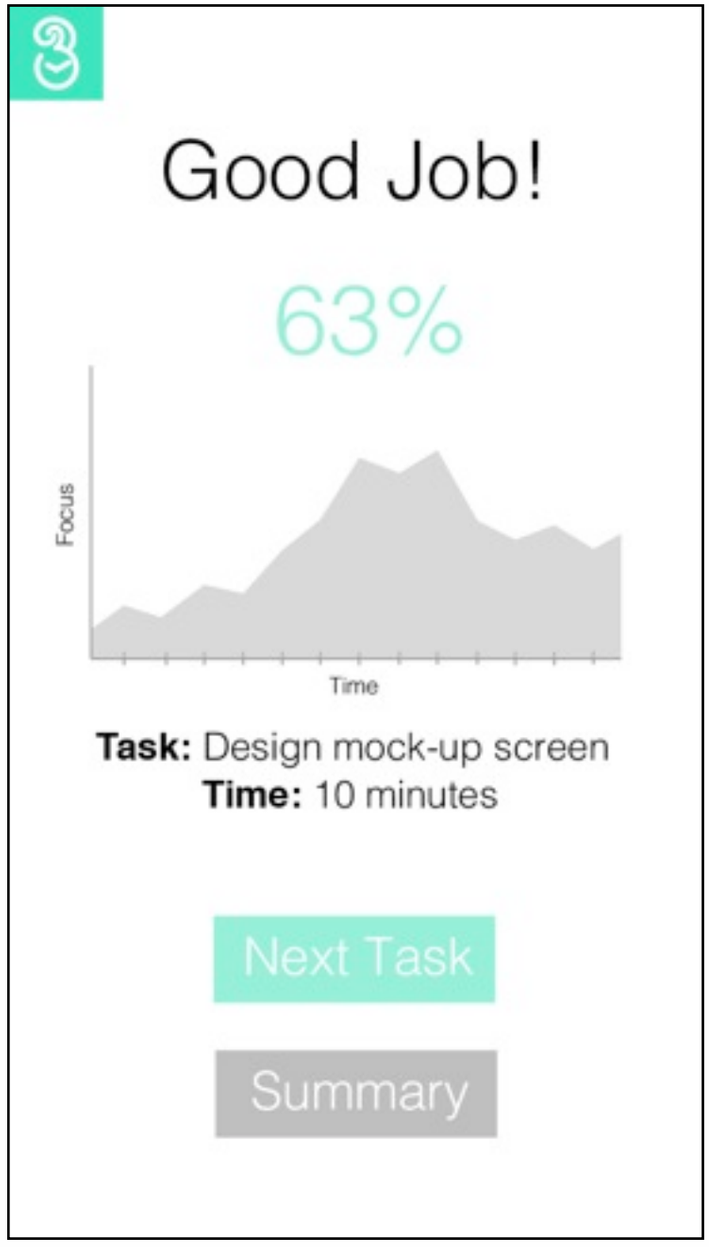

Good Job!
63%
Focus
Time
Task: Design mock-up screen
Time: 10 minutes
Were you satisfied with the amount of work you got done in this time?
Yes
No


Good Job!
63%
Focus
Time
Task: Design mock-up screen
Time: 10 minutes
Next Task
Summary

Implementation

- Preliminary dev using Android SDK and deployed on Google Play

- Public APIs

- Bluetooth Android API for EEG signal transmission and data parsing

- OpenGL for displaying data to the user (short-term and long-term usage of app)

Our Team

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