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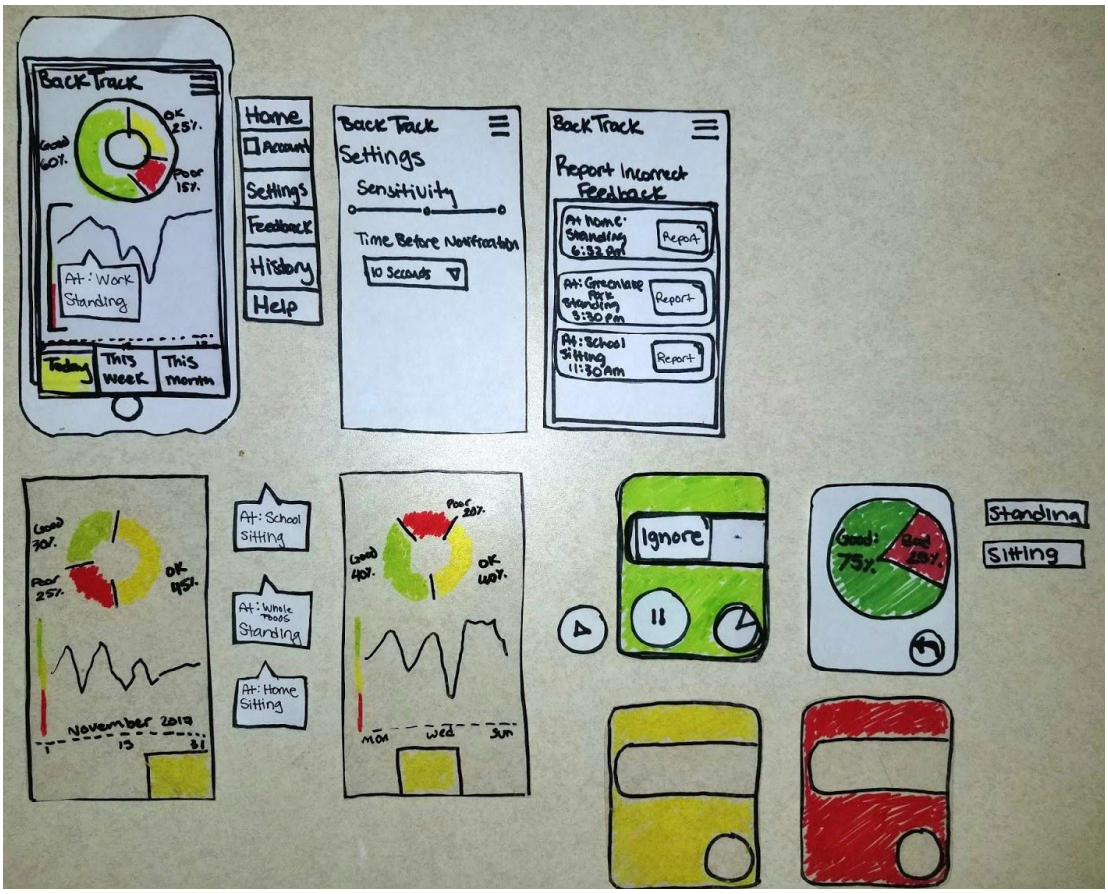
CSE 440 AA

Assignment 3c: Usability Testing Check-In

Overall Paper Prototype



Inspection-Based Methods

Heuristic Evaluation 1

All team members facilitated evaluation; Food Waste team conducted evaluation.

	Relevant Portion of Prototype	Heuristic	Severity	Revision
1	Visualizations on app/watch	4	2	Language on visualizations- “poor” vs. “bad”, pie vs. doughnut charts, different types of navigation (menu vs. tabbed nav)
2	Reporting Feedback	3	3	Wider time frames for reporting- how many does a user want to show up

3	Reporting Feedback	3	2	How to undo reports?
4	Location information	5	4/5?	Too battery intensive?

Heuristic Evaluation 2

Ashley Lindsey facilitated evaluation; local UX professional conducted evaluation.

	Relevant Portion of Prototype	**Heuristic**	**Severity**	**Revision**
1	Visualizations on app/watch	4	2	Can click more information on “today” visualization, but not on week or month, or on watch
2	Data visualizations	4	2	The granularity of the line chart (continuous) doesn’t match the bar charts (discrete, 3 categories)
3	Ignore Button	3	3	Unclear if user ignores how long it ignores it for
4	Ignore button	3	3	Unclear what happens if it is hit by accident, any undo?
5	Sensors	9	4	What kind of error might appear if the sensors can’t properly identify user’s posture
6	Touch targets on watch	5	4	Too many touch targets for size of watch screen
7	Settings	6	2	Settings- especially sensitivity- might be something that gets adjusted a lot, and it’s hidden under the menu
8	Sensitivity	7	2	Some users might want a way to set a different sensitivity for each location/activity
9	Feedback	6	2	Feedback is hidden under menu, which makes it hard to find if it’s something you want users to do frequently

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Usability Testing

23 year old male grad student in CSE at UW. YS and MS conducted the test in an Odegaard study room, where students are often found doing computer work. Yuqian played computer, Mike answered help questions. Once the participant realized that we were tracking posture, he became hyper-aware of the test and actively prevented bad posture. We had to ask him to simulate bad posture.

	Relevant Portion of Prototype	**Heuristic**	**Severity**	**Revision**
1	'Help' menu item	10	4	Add help screen and documentation
2	'History' menu item	4, 8	2	How is this different from 'home'? Maybe add a calendar screen
3	Line graph	3	1	Make this horiz. scrollable
4	'Time before notification' setting	3	1	Need to make dropdown menu with options
5	'Account' menu item	8	1	Need to add a screen. Is this just for cloud data saving functionality?
6	'Report' option under Feedback	2, 4	2	Does 'report' mean reporting an issue to BackTrack HQ? What is being reported? Maybe the button should say 'calibrate'
7	Posture pie chart	3	0	Tapping it does nothing
8	Feedback learning mechanism	5	4	Need to undo training options… or else the band could learn to never squeeze at all
9	Squeeze intensity	1	2	Do we need to add a squeeze gradient?
10	Wrist screen 'ignore' button	2	3	Is this used to train the ML system or to stop tracking?
11	Wrist screen	8	1	This should be much smaller
12	'Sensitivity' setting	5	1	Does this setting adjust squeeze strength or posture tracking sensitivity?
13	'Settings' -- squeeze duration?	1	1	This should be a setting.

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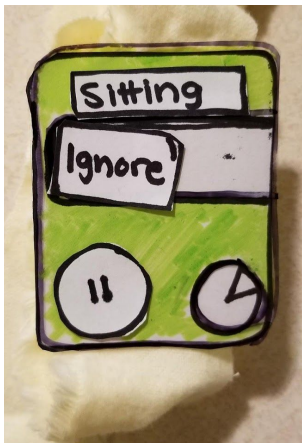
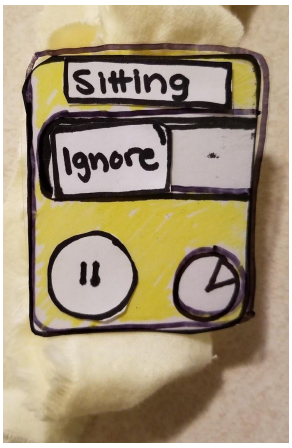
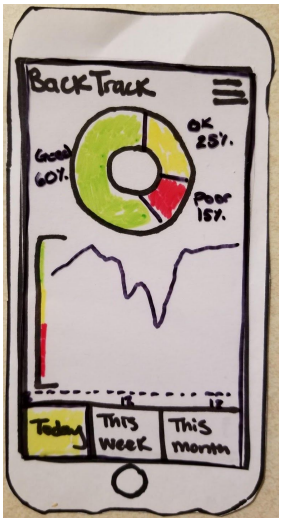
Primary Task 1: Becoming More Aware of Daily "Posture Creep"

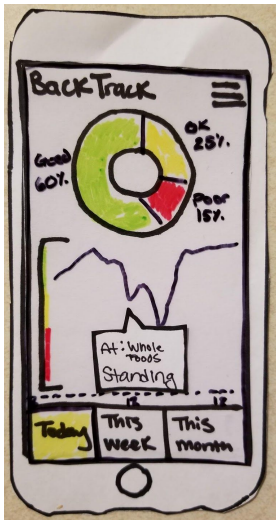
The BackTrack band tightens and color changes as a response to harmful posture:





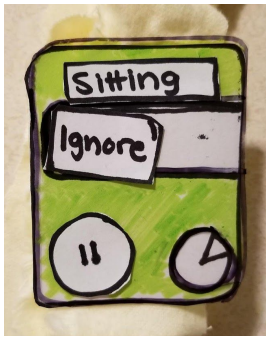
Later, the user can check daily log and tap on line chart to view activity and location at specific times:





Primary Task 2: Adapting to Changing Activities

The band is portable and automatically calibrates to sitting and standing (providing feedback to the user):



Usability Testing- Going Forward

For our next two usability tests, we plan to target at least one female participant to ensure gender-balance. We plan on interviewing students, particularly students from disciplines where they might be sitting in front of a screen for extended periods of time.

We had difficulty getting the participant to not be aware of their posture during the test, since to use the device we had to explain its purpose. We might try having the participant focus on a mentally complex task might force them to focus on the task assigned rather than just maintaining posture. Our main goal will be to really get at the experience of being reminded about posture rather than just the use of the interface.

We plan on having different team members take the role of the facilitator, computer, and notetaker for our next two tests. We are still currently recruiting participants, so who takes on what role might depend on who participates and what we think will be a good fit to make them comfortable. We also want to rotate roles so people can get experience doing different parts of the testing.