

Assignment 5: Low-Fi Prototyping and Pilot Usability Testing

The Team (Stress Busters)

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- Crystal T: Design

Introduction

Team Stress Busters aims to make Chillzone an easy-to-use source for quick stress-reducing activities. With Chillzone, “It only takes 5 minutes to find inner peace.” In today’s fast-paced society, many people have significant amounts of anxiety or stress, but think they are too busy to focus on their physical and mental health. Our solution is to provide a variety of short relaxation technique tutorials that users can do during their little pockets of free time throughout the day.

Initial Sketches

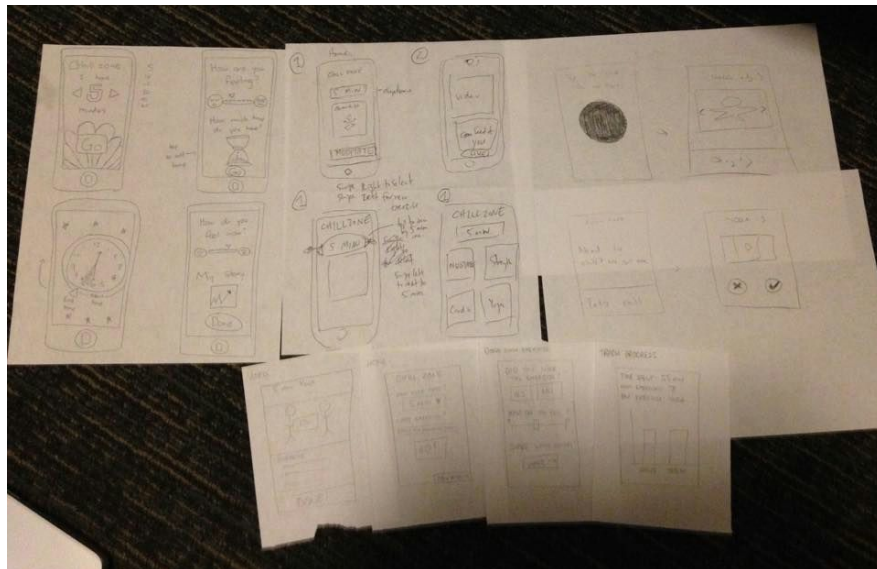


Figure 1: an overview of our initial sketches. It should be noted that there are also additional sketches on the backside of almost all the papers.

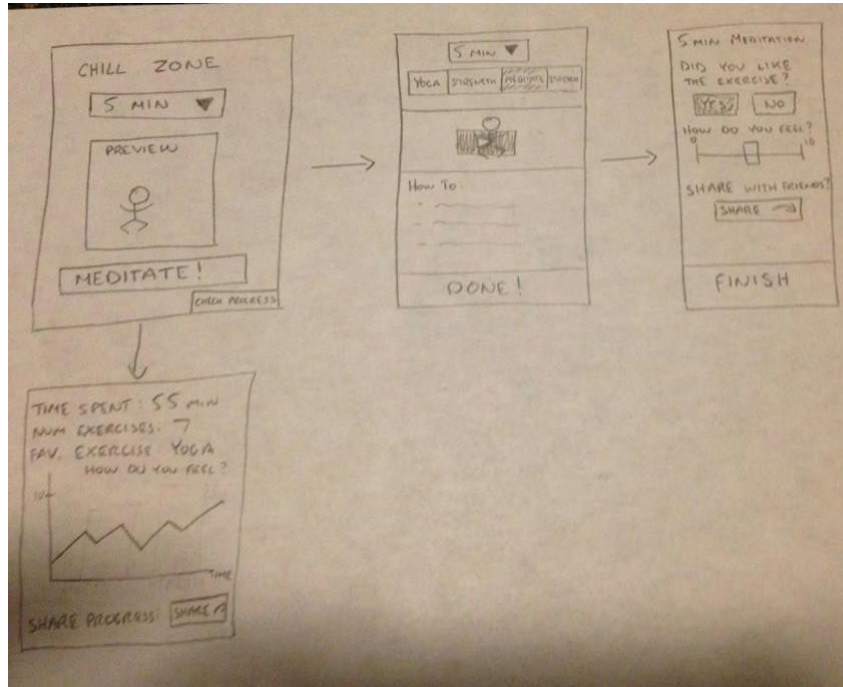
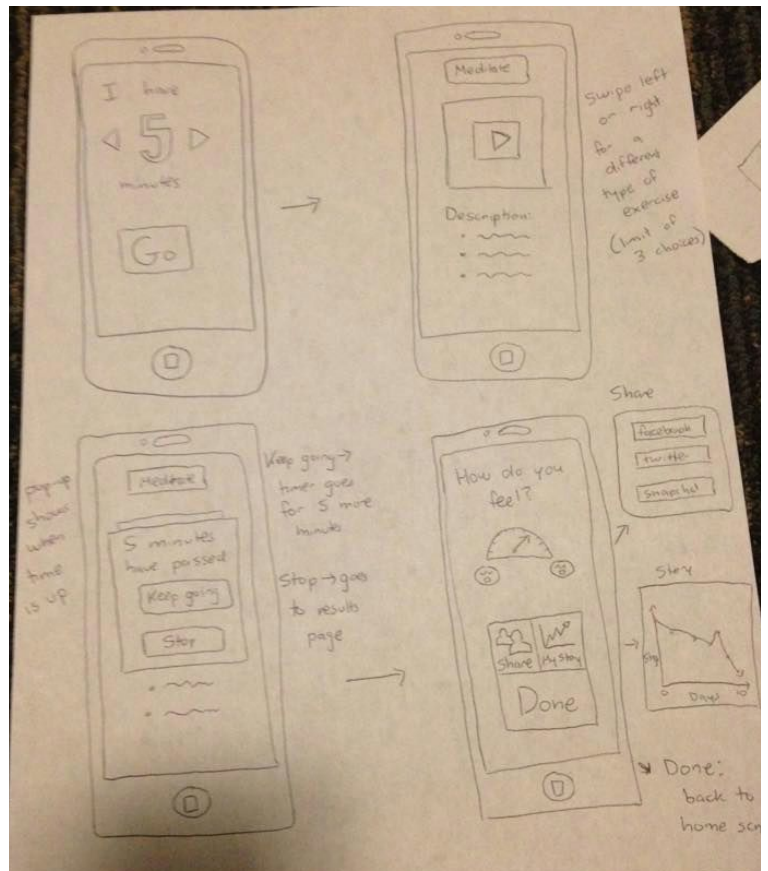


Figure 2: the first of our top 2 storyboarded sketches. After selecting the amount of free time you have, a preview image of the selected exercise will pop up. A user's progress can be accessed from the home screen, and navigation buttons at the top of the tutorial screen allow users to customize the type of activity they are doing and the length of the video they are watching. Users must click "Done" when they are finished with the tutorial in order to navigate to the final screen.

Figure 3: the second of our top 2 storyboarded sketches. Users can swipe left and right to see alternate relaxation techniques from the one given. After the inputted time has elapsed, a pop-up window will notify the user that time is over. Users can check their progress only when they've completed an activity.



Selected Interface Design

Our solution is looking to enable users to find quick stress-reducing exercises in the 5 minute holes in their busy schedules. It's meant to serve a busy, on-the-run user. As a result, we wanted the experience flow to match our target user by being straight-forward, direct, and easy to use. Our high level screen flow enables user to, in one touch, find a pre-selected destressing exercise. Simple and direct.

We found from our interviews that the users' main use for the application was to find a quick exercise to destress. As a result, this is the core and primary task flow in our app. Users are able to choose their exercise immediately upon opening the app. We wanted users to be able to experience their destressing exercises as quickly and directly as possible. Other tasks, such as tracking progress and social sharing, we found for user interviews to be supplemental functions. As a result, we place these tasks peripherally. Users can share exercises only after they have completed their destressing exercises. Similarly, users only rate their stress after they have completed their exercise. This seemed to intuitively flow: users would only care about tracking progress and sharing with friends after having actually completed the exercise. This was also corroborated by user interviews. Our track progress button is located in the periphery of the home screen so users can view their training history and monitor their stress levels, without detracting from the core function of the page, which is to actually select the destressing exercise.

Finally, determining how to enable a user to choose an exercise that was different from the default inspired several different design routes. Our final design choice for this task was first that we would choose a default exercise for them, so as to minimize decision paralysis. We also, once the user had initiated the exercise, enabled a quick swapping of other types of exercises, which several categories of exercises if the user wants to feel "focused", "calm", energized." A navigation bar on top enables users to see what kinds of destressing exercises are available, while swipe-left and swipe-right gesturing popularized recently would be used to navigate between them. We found this design decision of directing a user to a single exercise immediately breaks down user frictions for initiating the exercise. We also found the swipe and navigation to be more intuitive for users than conventional methods of clicking buttons to select exercise category, an alternative design we had considered.

Ultimately, our design choices reflect the user need we are trying to solve. Our users are stressed and busy. So we are designing a user experience that is simple, direct and focused on providing destressing exercises, the core value proposition of our app.

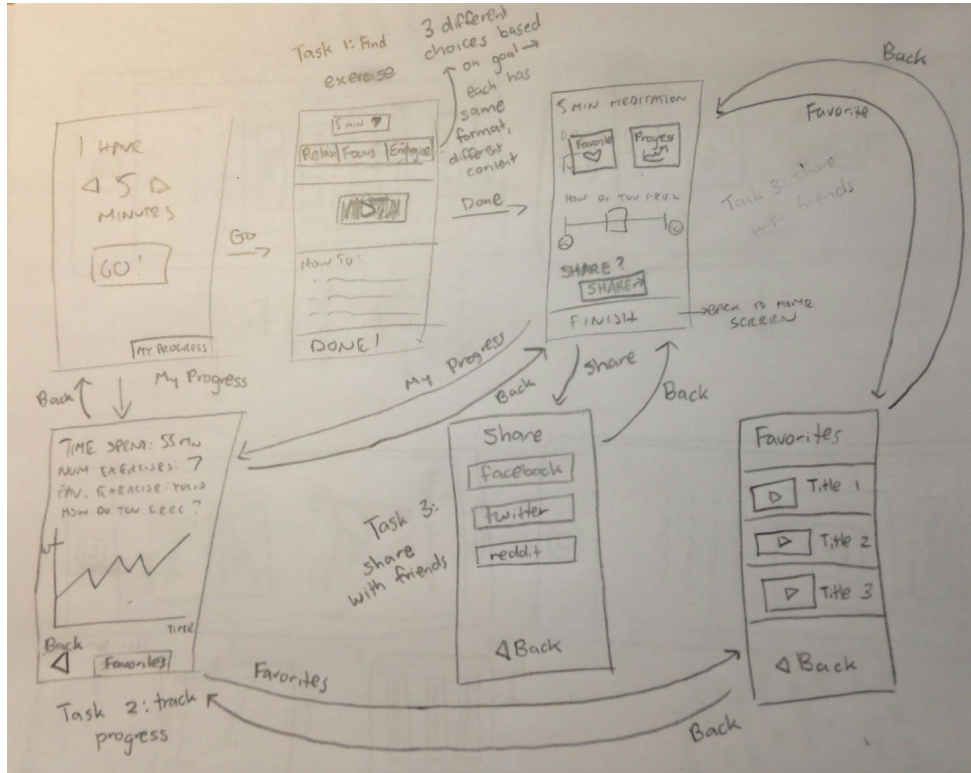


Figure 4: final selected interface design storyboard. The above image shows every unique screen in our app (not including other tutorial screens of different categories) and how to navigate from one to the other. Screens that accomplish a fundamental task are labelled with their corresponding task.

The Prototype

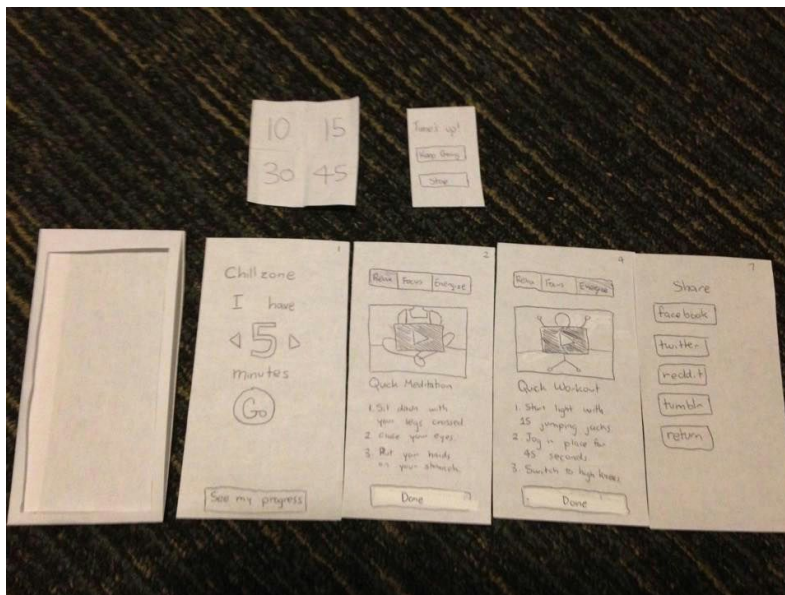


Figure 5: our paper prototype. There are other screens drawn on the back of the four screens shown, for a total of 8 screens.

Our low-fi prototype includes a paper model of a phone and multiple paper screens that can be inserted into the phone one at a time. The screen currently inserted into the phone will be referred to as the “live screen.” To conserve paper, each paper screen has a front and a back, but the two sides should be considered as two completely separate screens, and the two sides do not necessarily have a clear relation between each other. A limited number of pop-ups and animations are simulated with smaller pieces of paper that can be placed on the live screen. When users interact with the prototype using various touch gestures, one member of the team simulates the computer by inserting the next appropriate screen into the phone. When users click a video thumbnail, a brief summary of the video is described to the user by one of the team members.

The major interface screens include the home screen, the tutorial screen (of which the user has 3 different tutorials to choose from), the sharing screen, and the tracking progress screen. The key interaction of our prototype is through touch input. We do not currently have any plans to incorporate speech input or VR. We have a limited number of screens (8 in total). Since we are assuming that our user has very little time to begin with, we don’t want to waste their time by clicking through a lot of options or navigating through a lot of screens. Ideally, we want to be able to give them the content they want in just one click. A more detailed description of how the screens correspond to one another can be seen in Figure 4.

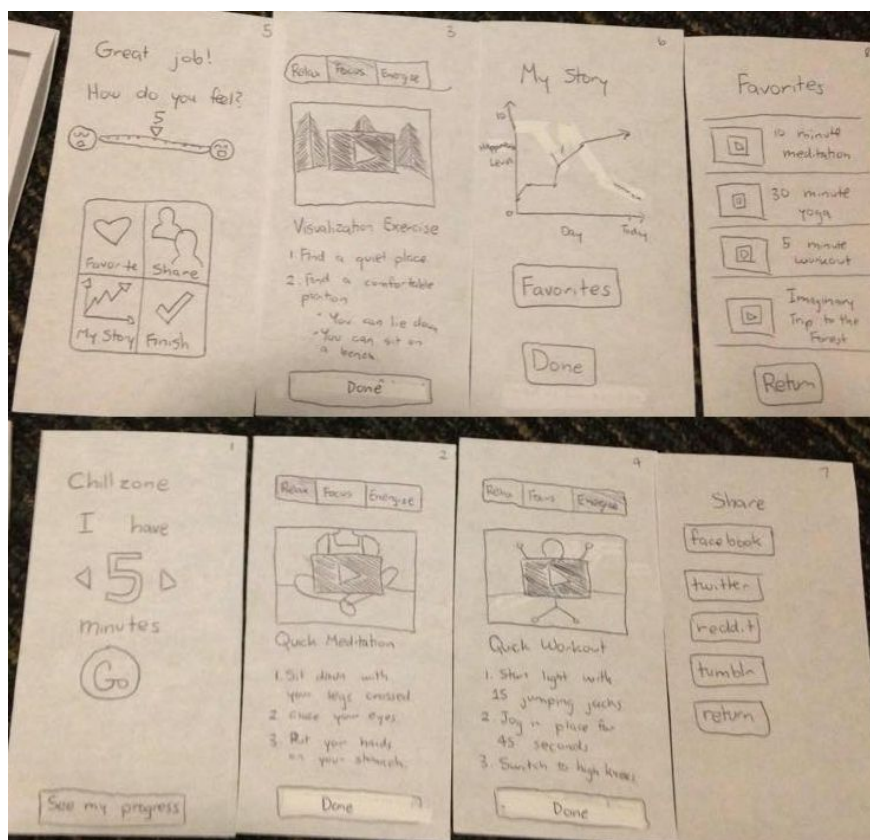


Figure 6: all screens of our prototype.

Method

We recruited three college-aged students as our participants. We recruited the participants by asking the participant if we could interview and observe them for five to ten minutes. We interviewed the participants at Tressider, because we wanted to interview the participants during a typical lunch break. The lunch break is one of the most common breaks during the day for a typical college student, which is why we wanted to interview participants during this time. We wanted to learn if an app like Chillzone could become part of the routine of a typical college student during breaks in the day such as lunch. We started the interview by telling the participants what Chillzone did in very general terms to provide context for the interaction. We also showed the participant an unrelated example task to ensure that the interview ran as smoothly as possible. We did not show the participant how to do specific tasks on Chillzone to ensure an unbiased interaction.

The three tasks we focused on during our usability test were as follows: find a 10 minute activity, share that activity with friends, and track your overall progress. During the interaction, we guided the participant by first stating the current task. We then observed and recorded as the participant attempted to carry out the given task. As we observed the participant, we told the participant to report how he or she felt. We wanted to know if the participant felt happy, sad, relaxed, or confused. During the entire interaction, we recorded all of the comments, facial expressions, and body language of the participant. Our notes were organized based on each task. For each task, we recorded how easy or difficult the task was for the participant, as well as the participant's overall feeling for the given task (eg. "I liked that/" or "that confused me").

We measured the success/failure of the paper prototype on how clear and intuitive it was for the participant to successfully execute each task. Additionally, we measured our paper prototype on the participants emotional reaction and body language. We closely studied the immediate reaction of the participant for each task to gauge whether or not that reaction was positive or negative. The overall goal for the Chillzone prototype was to make it highly intuitive, while also demonstrating the value Chillzone could provide to the everyday life of a college student.

Results

Task 1: Find a 10-Minute Exercise

This was our simple task and we anticipated the users to be able to do this easily. To execute this task, all they needed to do was increase the amount of time and click "Go" on the home screen. The biggest issue with this task was changing the amount of time from 5 to 10 minutes. All three of our users struggled with this. They were all confused when changing the time; they all asked us how to add time, but once we showed them, they understood. Once they figured that out, they all clicked "Go" without hesitation, which is what was expected.

After they clicked “Go”, they were taken to the exercise page. Both Jodie and Ashley clearly understood this exercise page, as they both pointed out that there was a video of the exercise as well as a description of the exercise. Lou had to ask us if the video was of an exercise.

Jodie also quickly noticed that the three tabs were different exercise types and clicked on them to see the other exercises. Lou noticed them, but was a bit confused on what their purpose was, but once we showed her, she understood it. After all this, all three clicked “Done” without hesitation.

Task 2: Track Your Progress

Once the user clicked “Done” on the exercise page, they are brought to the “Done with Exercise” page. We asked our users to track their progress. All three of them realized they needed to slide the bar and they perform this task with ease and very little confusion.

Task 3: Share with Friends

While still on the “Done with Exercise” page, we asked our users to perform the last task, which is to share the exercise with their friends. All three quickly identified the share button and clicked it and then clicked share to Facebook on the share page. There was a bit confusion on how to get back to the “Done with Exercise” page from the share page; there was some confusion about which screen the return button actually took them.

Once back to the “Done with Exercise” page, we asked the user to finish their exercise and go back to the home screen, and it was clear to them to click the finish button.

Overall Responses:

Overall, all three of the users said that the UI made sense and was relatively easy to understand. One question that came up was the increments of the time change and if it involved 6,7,8,and 9 rather than going from 5 straight to 10. Another concern was that the return button was a bit ambiguous and should have more guidance to where it is actually taking you. The “My Story” page was also a bit confusing to the users, they didn’t understand the graph presented, but once we explained it, they thought it was a good idea. Another confusion was the rating bar; it was unclear whether 10 was the most stressed or most relaxed. When asked about the three categories of exercises, they all responded that they were clear and made sense.

We learned that our prototype is pretty simple and easy to use, but can use some improvements. We need to make it clear to the user what the specific elements do, i.e the return button or the time increments. We also need to work on the My Story aspect to make it more clear. One suggestion, by one of the users, that could help this was to ask the user about how they are feeling before and after the exercise. We probably will still need to test those two aspects going forward to make sure we get it right and make sure there is no confusion on the user side.

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Appendix

Consent Form

The Chillzone application is being produced as part of the coursework for Computer Science course CS 147 at Stanford University. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of Chillzone. Data will be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers (Benjamin Au, Nicholas Bagamian, Kush Nijhawan, and Crystal Tjoa) or with Professor James Landay, the instructor of CS 147:

James A. Landay
CS Department
Stanford University
650-498-8215
landay at cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the Chillzone experiment. I also give permission for images/video of me using the application to be used in presentations or publications as long as I am not personally identifiable in the images/video. I understand I may withdraw my permission at any time

Name _____

Participant Number _____

Date _____

Signature_____

Witness name _____

Witness signature_____

Demo Script

I'm going to demonstrate the way the prototype works.

Pick up the paper phone. The live screen should be the home screen.

This is our touch screen, and it currently states that I have 5 minutes of free time. That's fine, so I'm going to click "Go."

Touch Go button. The live screen should be changed to the first tutorial screen.

So this is the screen I get when I click "Go." This looks cool, but I actually want to get back to the home screen.

Touch "Done" button. The live screen should be changed to the finished screen.

Hmm, ok. It looks like there are some interesting features here, but I'll let you discover what they are during the tasks.

Touch Finish button. The live screen should be changed to the home screen.

And we're back to the home screen. Any questions?

Raw Data

Participant 1 - Jodie	Participant 2 - Ashley	Participant 3 - Lou
10 Minute Exercise: Confused how to get to 10 minutes, but figured it out. Clicked go	10 min exercise: Struggled to change to 10 min, but once we showed her, it was simple	10 min exercise: Clicked go Then figured out how to change to 10, then clicked go
Got to exercise page: Realized that a video popped up, read exercise, everything was pretty clear Changed exercise by clicking focus, then clicked energize, understood that it would change the exercise	Understood exercise page, it gave exercise video and description Clicked done Track your progress: Scrolled to change her feeling	Asked if the video was a video of the exercise? What are the three categories? When she pressed, we showed her
Done with exercise: Quickly clicked done	Share with friends: Easily clicked share button	Clicked done, then wanted to go back to relax tab

<p>Track progress: Drag to track how you are feeling, knew what to do</p> <p>Share progress: Clicked share and shared to facebook without hesitation</p> <p>Asked about my story: Clicked it and saw how progress is made</p> <p>Finish: Back to home screen, easily figured it out</p> <p>Overall: Easy to understand Categories: Liked the three categories, made sense My story was a little confusing, but a good idea Rating bar 0-10: was 10 most stressed out or the best? Ask how they felt before and after</p>	<p>and found facebook</p> <p>Clicked finish: Back to home screen</p> <p>Asked about favorite button: if it meant that it was your favorite exercise</p> <p>Overall: Asked about 5->10 minutes, if it had 6,7,8,9</p> <p>Good because it makes you feel obligated to do something</p> <p>Asked to switch to energize</p> <p>Categories: make sense: energize get you going, relax to calm you down, focus to clear your mind</p> <p>My story: tracks how you felt</p> <p>"I like it"</p> <p>Back better than return</p> <p>Suggested: different pages for each step in the description of exercise</p>	<p>Track progress: Slide bar to change feeling Then clicked My story to see it</p> <p>What does favorites mean? Clicked it and then favorites page Return is ambiguous</p> <p>Share: Clicked and then found facebook Asked where return would take you</p> <p>Overall: Probably would not use the app</p> <p>People would usually know what they want to do. They wouldn't go to the app.</p> <p>UI made sense, just the return button was iffy</p> <p>Pretty intuitive</p>
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