

## Assignment Five

# Low-Fi Testing

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# Introduction

## Value Proposition

Antagonistic, artful companion.

## Mission Statement

Our goal is to empower artists at all levels by boosting their creative adaptability.

## Problem & Solution Overview

We set out to tackle the problem artists at all levels face during the creation process – the block. The block is when artists become too attached to their work but are unable to see a path forward in their work that satisfies them. Artbot attempts to free artists from this mode of thinking using a gamified approach coupled with long-term check-ins.

## Sketches

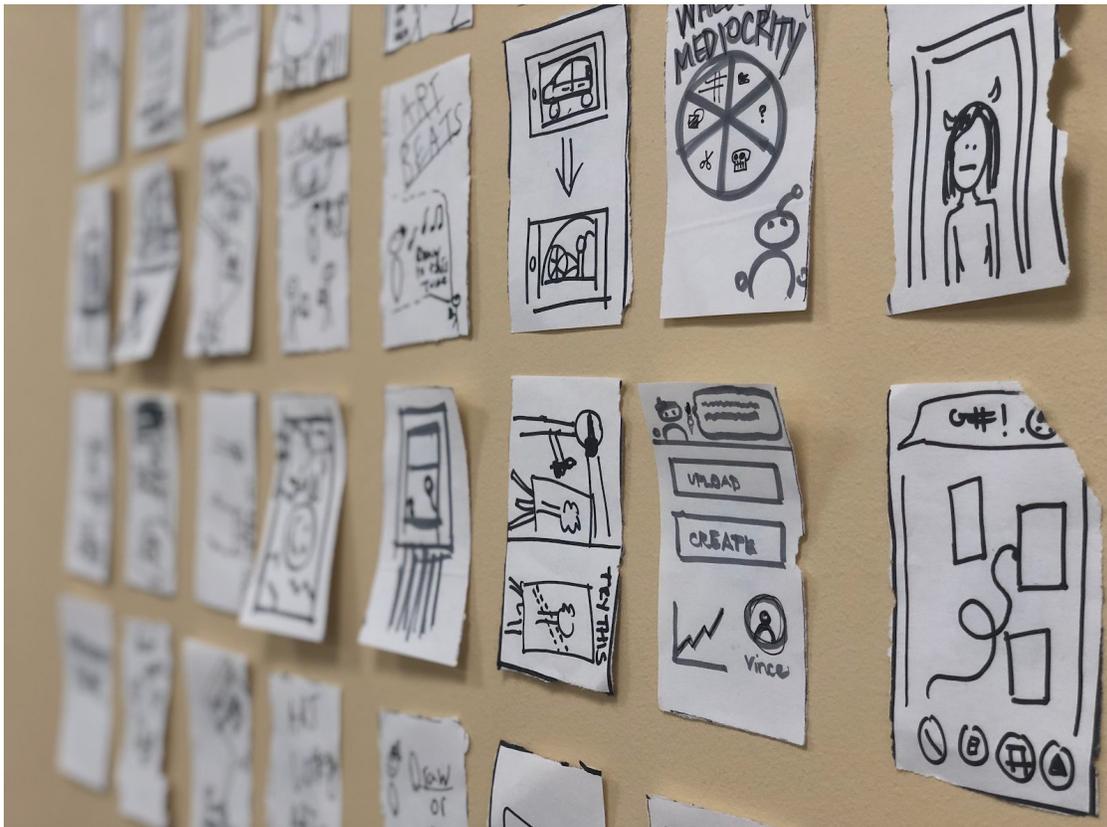


Figure 1. Initial sketches.

From the 32 initial ideas we worked on (above), which varied from simple canvases on screen to the use of mixed reality to intervene, we narrowed it down to 5 ideas.

# Alexa

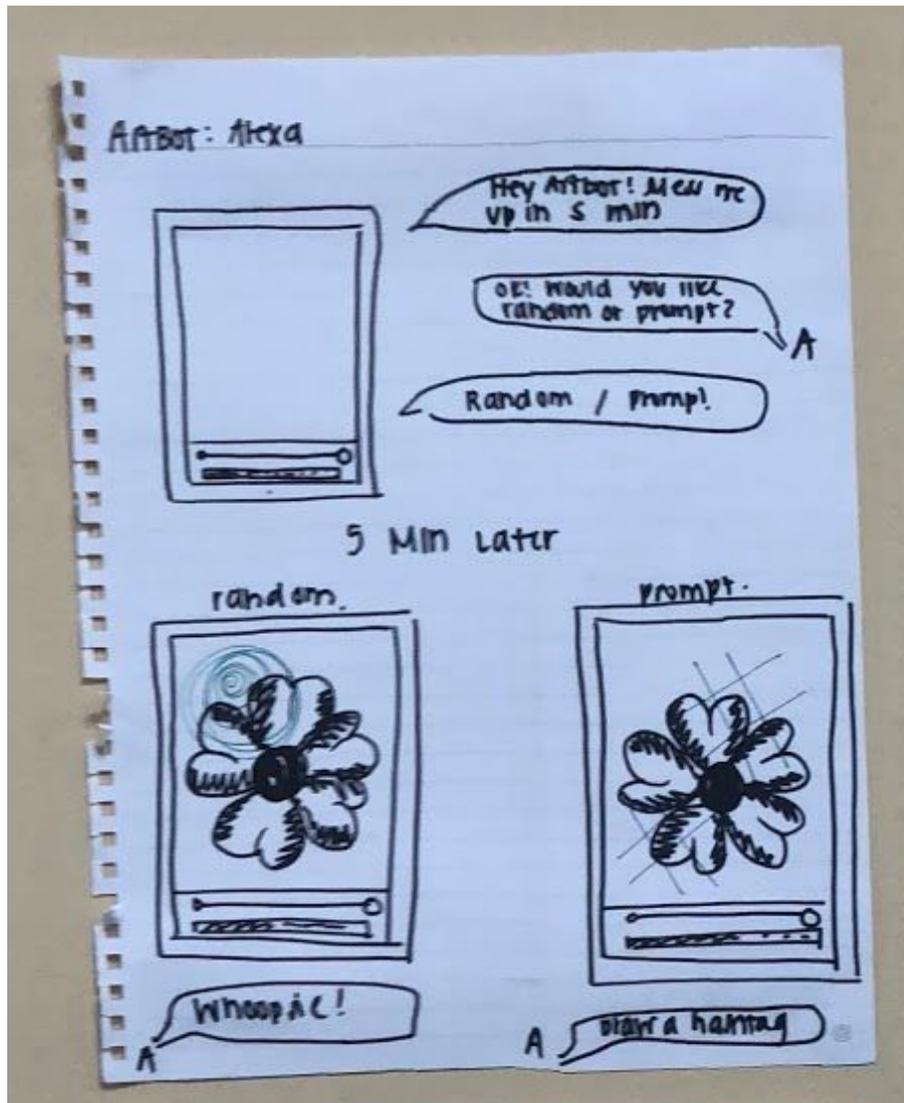
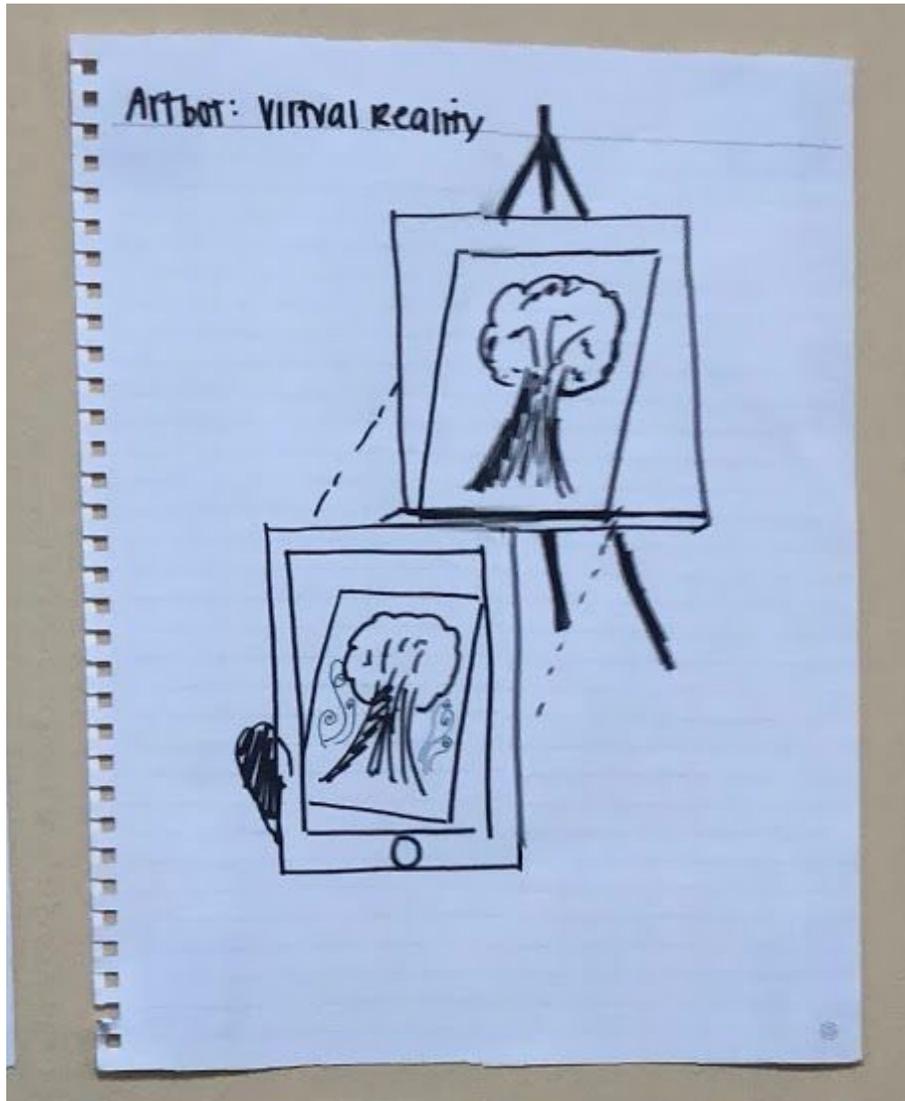


Figure 2. Artbot as an Alexa app.

The idea centers around a smart assistant like Alexa taking on the role as Artbot. Users would talk to the virtual assistant and take suggestions on how to intervene in their artwork.

## Mixed-Reality



*Figure 3. Artbot as AR application.*

This concept uses some VR/AR/MR format to mess up one's artwork, identifying canvases and virtually destroying that artwork right before the users' eyes.

Canvas

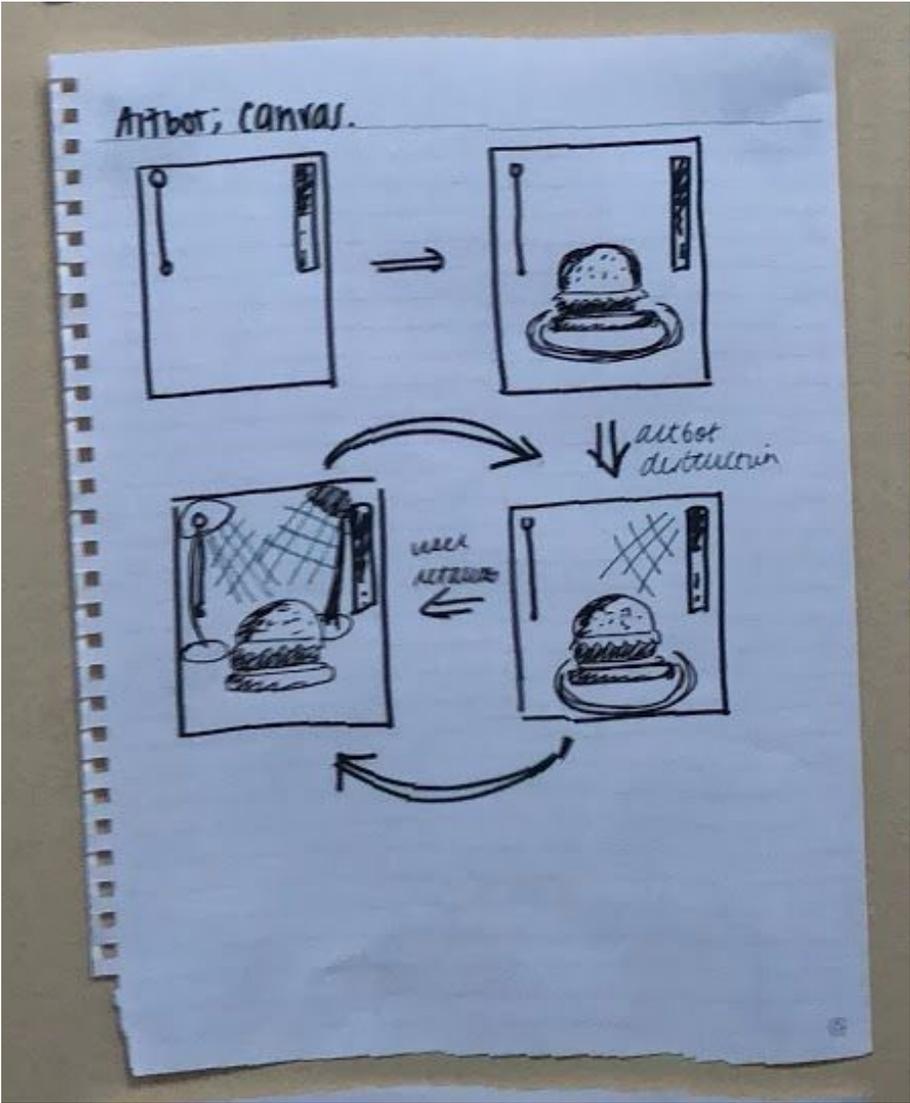


Figure 4. Artbot as a canvas.

This implementation is akin to Snapchat's canvas built into the app, a simple sketching tool meant simply to jot ideas down rather than focus on the medium itself.

## Adjacent App

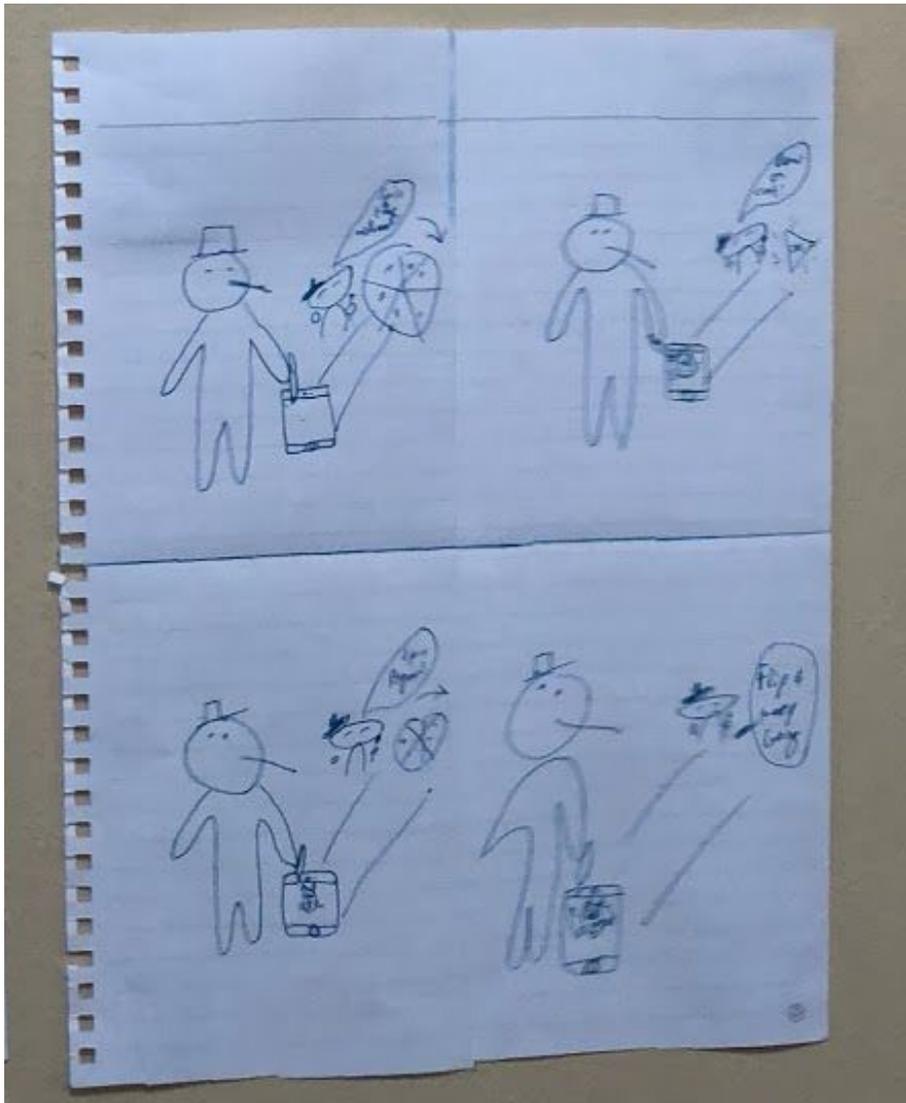


Figure 5. Artbot as a companion application.

This idea is simply a random generator app, where users spin a wheel at their pace while they work on artwork in real life to think of ways to generate moments of “destruction.”

## “Mess Me Up” Button

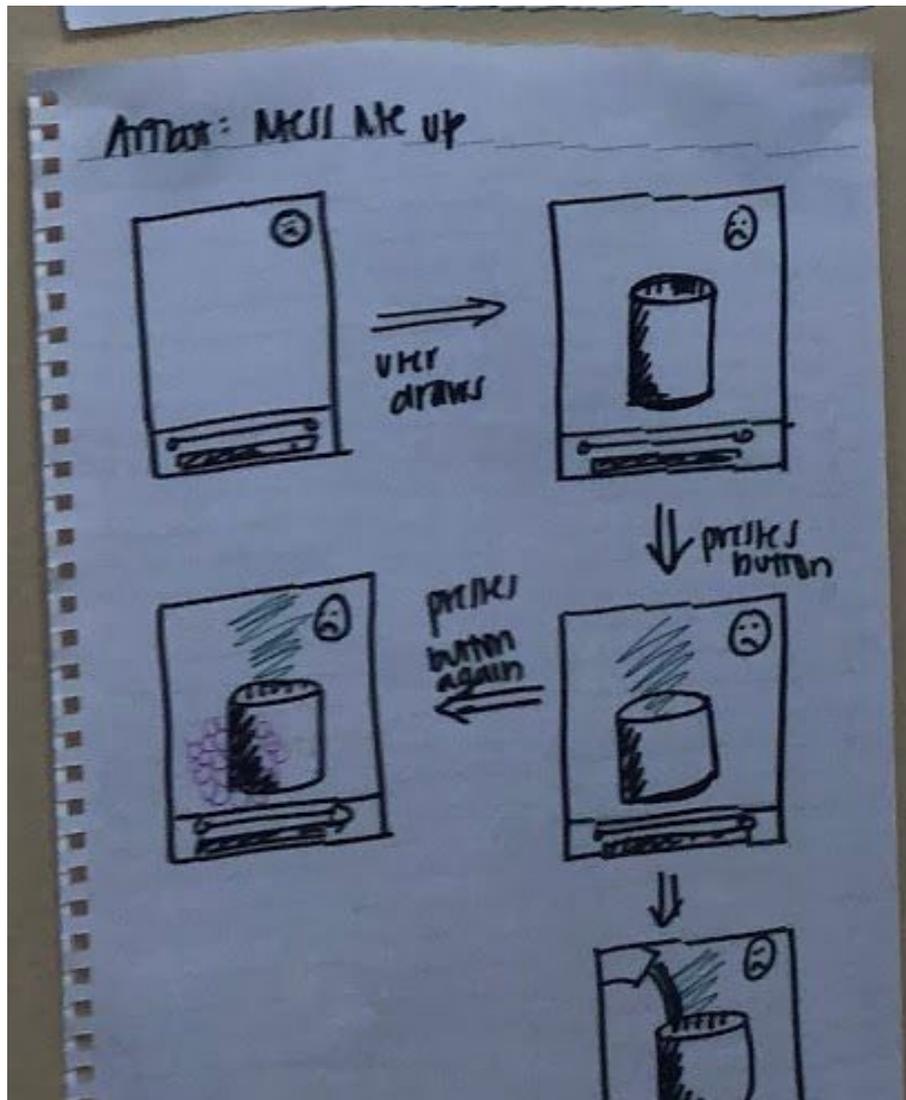


Figure 6. Artbot as a button.

This implementation is an even simpler version of the “Canvas” option, wherein we have an application that simply has a button to press that meaningfully “destroys” the artwork in some way.

## Storyboarding: Canvas

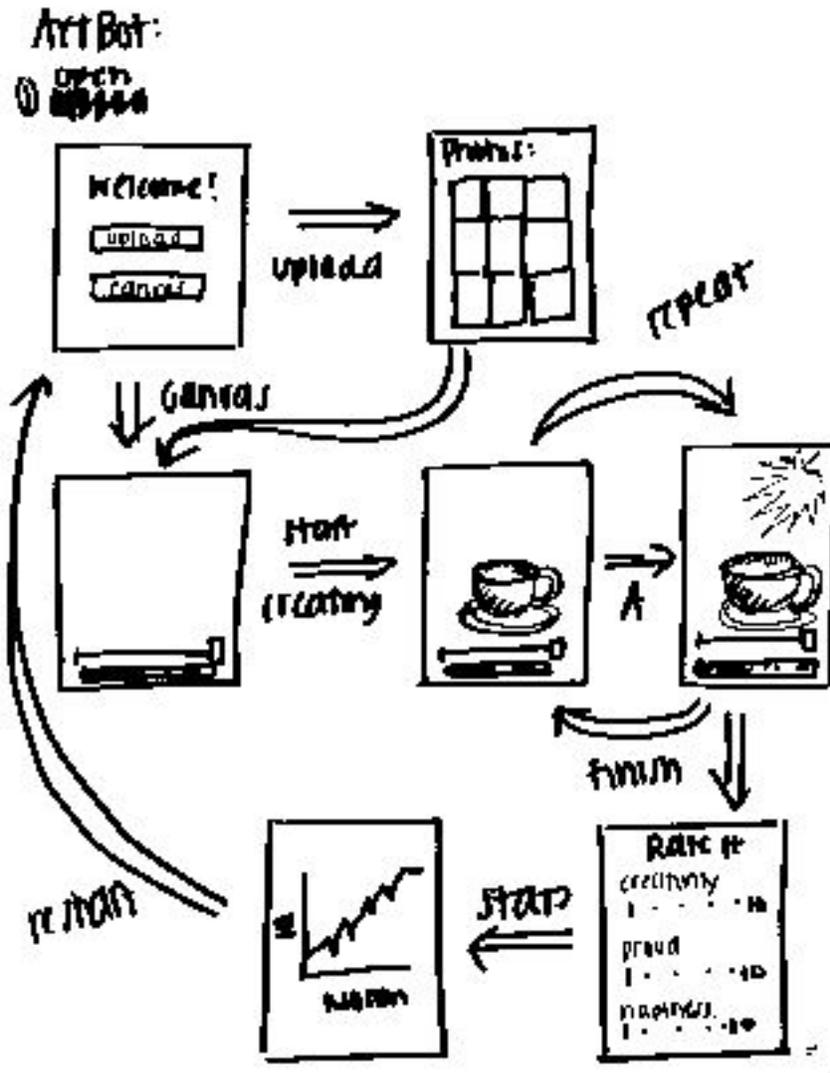
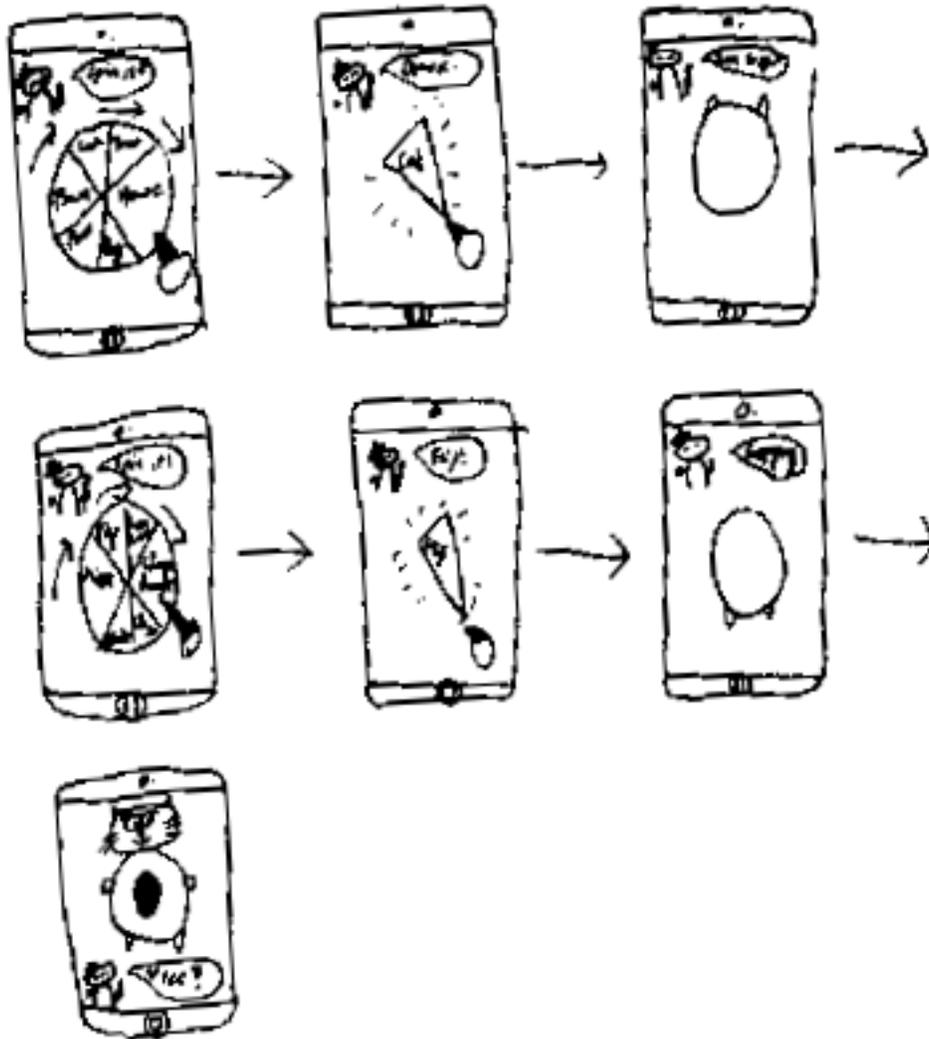


Figure 7. Artbot as a canvas in detail.

The idea is goal-centric, tracking user behavior in a way that makes it almost like a habit tracker. The design makes it such that everything can be completed within the application itself, building a relationship between the user and the program.

## Storyboarding: Adjacent App



*Figure 8. Artbot as an adjacent app in detail.*

In contrast to the canvas idea, this puts the control more squarely on the artist themselves, making it such that the app serves as a supplement to art they're currently making. It relies on the artist to enact the “destructive” actions the bot suggests.

## Selected Interface Design

### Canvas Implementation Pros + Cons

Pros	Cons
Everything within controlled environment	Limits medium to what is on screen
Intuitive extension to long-term wellness	Intervention can be jarring to user
Artbot can be more fully developed with a personality/temperament	Less participation in the “destruction” Artbot has
Feels more accessible and tangible	

### Adjacent App Implementation Pros + Cons

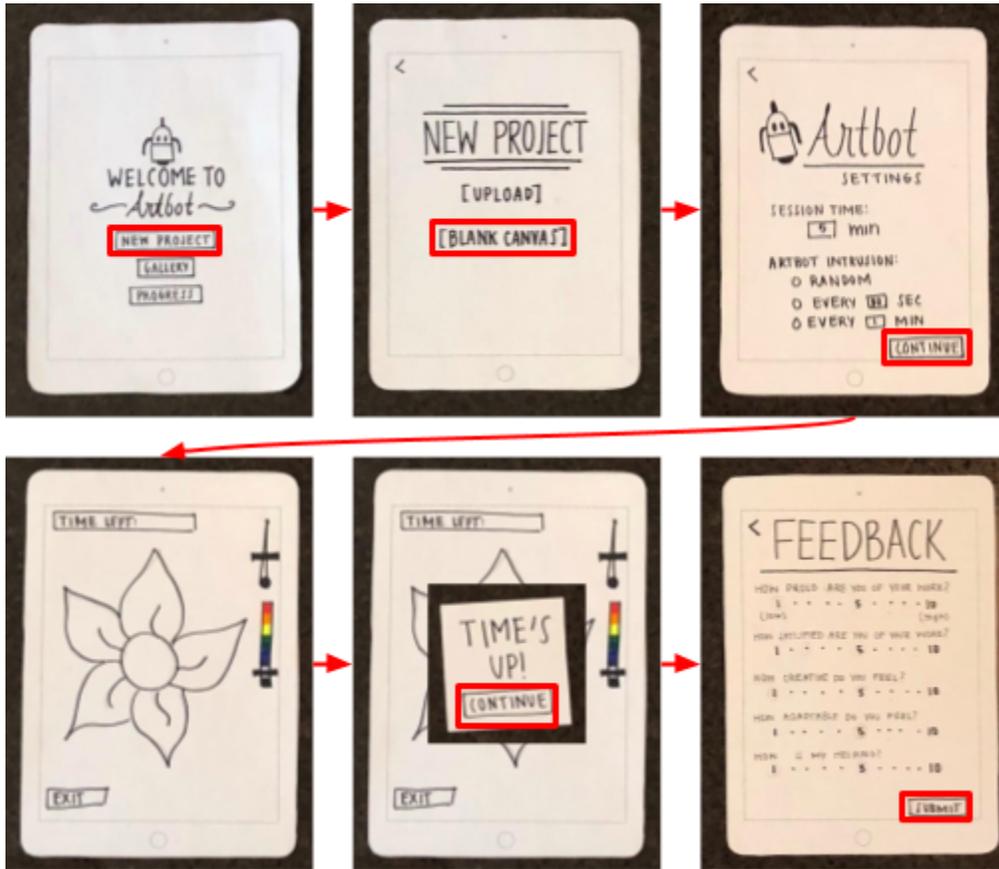
Pros	Cons
User participates more in what Artbot does	Adds more steps for the user
Draws attention to chance in app (could be fun)	Less streamlined than Artbot performing interventions on its own
A wheel will have a gamification effect	Less time drawing, more time spinning
User will be caught less off guard by intervention	Wheel may become annoying to use when novelty wears off

### Reasoning

Drawn to the idea that we'd have greater control over user experience by keeping creation on the app, the Canvas implementation won. We wanted Artbot to be integrated fully in the process, which wouldn't have been the case with the Adjacent App implementation (as it relies on artist cooperation).

# Taskflow Storyboarding

Task 1: Start a new project and initiate a creation session.



Task 2: See a previous artwork made in the app.



Task 3: Check your progress in the app.



# Prototype

## Functionality

Our prototype was built on a mock paper iPad, with some color added to symbolize the artwork key UI elements such as days completed and the current day. The prototype is primarily interacted with through touch.

Interface Element	Functionality
New Project page	Initiates new session with Artbot, providing Upload/Blank Canvas options
Settings page	Sets time for session and how Artbot intervenes with timing
Canvas page	Main canvas for Artbot session where user draws and Artbot intervenes
Feedback page	Asks for user feedback and tracks emotions/feelings/thoughts
Gallery page	Looks at past creations with Artbot
Progress page	In Calendar form, sees streaks of check-ins, while in Chart form sees trends
Progress Log window	Pops up within Progress page to show artwork and specific day's check-in



Figure 9. Entire prototype system.

## Method

### Participants

For our testing, we attempted to target artists at varying degrees of expertise and comfort.

For an expert in visual arts, we interviewed a masters' student at Berkeley from Portland, Oregon, with experience in UX design. This student was visiting an RF on campus, and we interviewed them in Junipero..

Our second participant was a recent masters' graduate from Columbia University who studied public health. This student accompanied the previous student, so we interviewed them in the Junipero. We separated them when we interviewed them so they wouldn't be primed during each other's sessions.

We reached out to an artist of a different medium – writing – for our final interview. Our participant here was a post-doc in English from Kentucky who works as a teacher for Stanford's

Online High School program, who we reached out to through a mutual friend. We interviewed her in Ng House.

## **Environment**

The testing environment was minimal and quiet; we kept all materials close to us in a folder and presented only one screen to participants at a time.

## **Tasks**

- Start a new project and initiate a creation session.
- Find a previous work you have made.
- Check your progress on a given day and find your ratings from that day.

## **Procedure**

To ensure consistency, we read from a script explaining the test and what we expected from each participant. Then, we asked them to execute specific tasks in our app, recording their behavior and test measures. Afterwards, we debriefed the session with questions asking them about their user experiences.

## **Test Measures**

- Time spent moving between different screens and executing tasks
- Pain points in how many times the user deviated from our expected task-flow

## **Team Member Roles**

*Greeter* Lexi

*Facilitator* Vincent

*Computer* Casey

*Recorder* Zach

## Results

All tasks were successfully completed within a reasonable amount of time; the first task took up the most time due to the built-in 5 minutes of actually completing the session, but removing all of that resulted in a reasonable time of execution for the process.

Table 1. Time spent executing tasks.

	Participant 1	Participant 2	Participant 3
<i>Start project, initiate session</i>	6:04	5:41	6:30
<i>Find previous work</i>	0:25	0:20	0:33
<i>Check progress on given day</i>	0:32	0:46	0:51

Among the pain points, with Task 1, the feedback portion at the very end of the session contained a question which really confused the users regarding Artbot's "helping." Furthermore, when attempting to find their ratings on a given day for Task 3, the participants struggled to swipe to the left to receive that information, even with the dots on the bottom signaling swiping motion (one participant even pressed the tiny dots as though they were buttons, which was unexpected).

Finally, in Task 1, while most interventions seemed to spur creativity, drawing specific icons seemed to not have this effect. Participant 1 expressed that while she enjoyed finding a way to incorporate the line and orientation flip, the heart and happy-face icons were not general enough to incorporate into her piece.

## Discussion

Throughout the testing process, what encouraged us the most was how much fun our participants had. They laughed while they drew, were curious and interested in what Artbot would do next, and were flexible when Artbot intervened. Further testing with different possible interventions Artbot can perform will help us optimize ones that encourage creativity.



Figure 10. Participants' creations.

It's clear that we need to improve how users navigate through the app. Participant 1 suggested to implement some sort of navigation bar so they can toggle between the different sections of the app more easily. Regarding the third task, rather than trying to swipe between screens, it might be easier to have it be a scroll through up and down.

Some also struggled with the feedback due to unclear wording in the questions we asked; one asking how interruptive Artbot was turned out to be more confusing than endearing. Moreover, after our conversation with Participant 2, we repositioned our mission statement away from creative wellness (which suggested a sort of therapy) and closer to creative adaptability.

We've become reflective in what we'd like the long-term component of our application to be, as our testing has shown that what and how we ask is incredibly important. Moving forward, we must be intentional in exactly what information we ask from users and how we use that information to improve their experience.

Given the constraints, we were unable to maintain this experiment over a longer period of time as is necessary for a longer-term focused application. However, from the positive feedback we received from our participants, we feel we are on the right track concerning what information to collect to promote long-term accountability.

# Appendices

## Incident Severity Ratings

Important pain points in red

Participant 1

Incident	Severity
Didn't understand what the last question meant in Feedback page	4
When icons (i.e. hearts, stars) drawn, didn't know how to integrate seamlessly	2
Takes too long to get back to central dashboard with series of pressing back button	2
"I'm so proud of this. Can I keep it?"	0

Participant 2

Incident	Severity
Confused with the positioning of the app as creative wellness	3
"Oh no!" + laughing when Artbot intervened	0
Confused at how chart depicts trend; "Why early and late?"	1
Reacted positively when canvas turned upside down	0

Participant 3

Incident	Severity
Didn't understand what the last question meant in Feedback page	4
"Aha!" moments	0
Color precision is spotty with gradient	2
Didn't know how to swipe to see more info	3

## Sample Script

Hello! Thank you so much for spending a few minutes of your day with us. My name is Vincent. We are students in CS147, and we're currently developing an app meant to improve your long-term creative wellness. We're going to ask you to do a series of tasks today. While you do these tasks, please don't ask questions about how to navigate this prototype, but please be vocal as you work through them; this will help us gain data to improve our app. Say your thoughts out loud!

Our app is called Artbot. It is an antagonistic app; that is, it will be trying its very best to work against you during a session. We believe that in this way, it may increase your adaptability and creative plasticity. Do you have any questions before we begin?

*After questions.* Great! Let's start with task one: please start a new project and go through a session. A session is starting a new canvas and going through a five minute session of Artbot, wherein you'll draw and Artbot will intervene.

*After Task 1 is completed.* Now let's move on to task two: assume that you've been a steady user of this app and have already made works in this app. Please find a previous work you made.

*After Task 2 is completed.* Great! Task three: assume again that you've already made works in this app. Please check your progress on October 4 and find your ratings from that day.

*After Task 3 is completed.* Thanks so much! This completes the tasks you have to do today. Now, we are going to debrief this experience with a series of questions. Please answer as best you can.

- How was that experience for you?
- What emotions did you feel during the tasks?
- Was it enjoyable or frustrating?
- Was it fun or boring?
- Was anything especially difficult during that process?
- Was anything especially rewarding?
- Overall, did you like the experience?

Thank you so much!

# Sample Consent Form

## ARTBOT CONSENT FORM

Hello! Thank you so much for spending a few minutes of your day with us. We are students in CS147, and we're currently developing an app meant to improve your long-term creative wellness. You are invited to participate in a research study concerning certain aspects of this application. We hope to learn how users navigate this app based on a series of tasks we provide.

### **VOLUNTARY PARTICIPATION**

Your participation in this study is entirely voluntary. Your decision not to participate will not have any negative effect on you. You can decide to participate now, but withdraw your consent later and stop being in the study without any penalty.

### **DURATION OF STUDY INVOLVEMENT**

This research study is expected to take approximately 20-30 minutes.

### **PROCEDURES**

If you choose to participate, we will lay out a series of paper lo-fi prototypes for you to navigate as if it were a user interface. During this time, we will ask you to complete a series of tasks surrounding this application. Please complete these tasks to the best of your ability while providing verbal feedback.

### **POSSIBLE RISKS**

There are no possible risks, discomforts, or inconveniences resulting from this research study.

### **CONFIDENTIALITY**

The results of this research study may be published in written reports and presented in academic settings. Your name or any identifiable pieces of information will not be tethered to your data except as authorized by you.

By signing below, you hereby consent to participating in this study.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_/\_\_/\_\_\_\_

*Signed consent forms of participants in this study available at request.*