UX Study - Enhancing Technology for an Immersive Experience

Latte Art Simulation App

Prototyping | Apple Develop Academy (Bilkent) | 2 days | 2 Members

LatteAR

Transforms latte art practice with cutting-edge AR, offering an authentic, skill-testing experience that mimics real-life artistry

Our Process

Engage | Investigate | Act

Latte art takes skill and practice.

We started our exploration by **learning how latte art** is made. It turns out there are **many steps** to follow and **lots of preparation** involved, with specific tools and techniques needed to get it just right.

Engage | Investigate | Act

Latte Art Process

We start with how to make it latte art first

Needs

Espresso
Milk
Pitcher
Cup

source/ref: https://pjstone.coffee/crafting/the-complete-guide-to-pouring-latte-art/

Latte Art Keypoints

"Latte art is the result of applying a bit of chemistry and physics to your advantage. It combines technique to bring out the best in every design" From this findings we wrap some technique and key element to make latte art

Key Elements

- Placement of your spout
- Pour Speed
- Proximity to the cup

Technique

- The Dot
- The Wiggle
- The Cut
- Stacking/Pushing

Lets talk with Tirta!

Hey Tirta! I heard you've been working on your latte art. How's it going?

Honestly, it's **tough**. I want to **practice latte art more**, but I'm worried about **wasting resources** if I mess up.

Based on our findings, we realized it would be exciting to bring the latte art process into an **entirely new reality**. By simplifying certain steps, we could allow baristas to **practice anytime, anywhere**, without the need for all the traditional tools and setup.

Engage | Investigate | Act

Break the problem

Lets do the fun part of it, define key problems and how our approach to it

Tools and resources are not barista properties

What if

Tirta can have all the tools and resources without having any of it?

How

Make all that stuff virtual

There are many techniques and elements

What if

Tirta can simulate the technique and element without the "real thing" ?

How

Simulating the authentic process

Create a **virtual simulation** that replicates the tools and techniques, allowing him to refine his skills without using real resources or equipment.

Our solution

We gathered all our findings and determined the most suitable solution.

Creating latte art simulation with Augmented Reality and collect motion data to provide an immersive experience

Key Feature

- Real-life hand recognizer
- Phone as a milk pitcher
- 3D Cup anchoring to hand
- Real-time phone motion
- Time challenge
- Share result
- Various based

How to make it still feel authentic

Time challenge

We discovered that the average latte art process takes about 40 seconds. Based on this, we decided to set a 40-second limit for the pouring process to maintain realism and challenge.

Design decision

A timer can make users feel uncomfortable and pressured. So, we decided to use a **progress bar** instead, so user still can track their progress in a less stressful way.

3D Cup anchoring to hand

Cup proximity is a key element of latte art. To keep the experience authentic, we anchored the 3D cup to the user's hand in AR, ensuring seamless coordination between hand movements and the cup's position.

Phone as a milk pitcher

This is one of our best decision, After thoughtful brainstorming, we found the perfect approach: why not make the phone their milk pitcher? This allows users to clearly see the screen while engaging directly with the process. Plus, using the phone's gyroscope and accelerometer, we can incorporate all the essential techniques and elements for a realistic and immersive experience.

Flow

Legend
Flow
Page
Decision
Variant
Flow
Home
Time challenge
Time challenge
Start
Pause
Resume
Stop
Share
Share
Share