

**I have added the features below, all the features in the VR screen will be inbuilt in the AR tab. It will be a web app, not a mobile app. I have listed many APIs and AI below. We will need to integrate them for our features. Please choose AIs and APIs that will work the best in all devices like IOS, Android, Mac, Windows. Make sure it is in UNITY format and complete ARD as it is not working. Please deeply work on camera permissions.**

## **TogetherFrame**

### **Objective:-**

To eliminate the emotional gap created by physical distance by allowing couples, families, and friends to experience real-time shared presence and capture meaningful memories together — even while being miles apart.

The platform aims to transform digital connection from simple video calls into immersive, emotionally rich shared experiences.

## **What Is It?**

This is a web-based real-time virtual presence platform that allows two or more people to:

- Connect through a private link
- Appear together in a shared digital space, no background remove or editing.
- Appear inside each other's real physical rooms using AR
- Interact through guided gestures
- Capture realistic, high-quality photos and short reels & time lapses

Instead of just placing users in a fake shared background, the advanced version enables:

Person A to appear inside Person B's actual room in real time as an AR presence.

## **1. Unified AR Studio (The Connection Experience)**

It is an AI-powered telepresence platform that "merges" distant people into a shared physical space.

- **Core Experience:** Partners, families, or friends "teleport" into each other's surrounding using **3D Environmental Merging using NVIDIA MAXINE TELEPRESENCE**. They appear as if they are standing in the same room. **Physical Interactions:** Users follow AI-guided silhouettes or text based instructions to perform real-life gestures like **hugging, holding hands, and leaning on shoulders** and more listed below.
  - **AI Harmonization:** The app automatically matches lighting and shadows between both rooms, it also captures human moments, body mapping via **Posing OutlinesMediaPipe / ARCore** (Pose Estimation)
  - **Skin StretchingBanuba Face Mesh** (Vertex Deformation)
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- The app displays **Real-time humans** on the screen in the main screen while two of them are still in their respective screens.
  - *Example:* To "hug," User A sees an outline of where User B is standing. The AI gives vtext based prompts: *"Lean 5 inches left," "Lower your chin," "Wrap your arms now."*

## B. AR Room Presence Feature

- Private room link access
- Real-time camera sync
- Placement in a shared immersive environment
- AI lighting correction to match both users
- Ai scans both the users background, whatever background is visible on camera.
- The other user appears as a real-time AR projection, they can choose. AI will ask them who would like to be projected?
- Floor detection + spatial placement
- Proper scaling and shadow blending
- Users pose together inside a real physical environment
- Capture realistic AR photo + live photo

## Real-Time Photo Experience

- 3s / 5s timer
- Smart auto-alignment
- HD image export
- Auto-generated timelapse reel
- Multiple camera angles for events (stage view, side view, group view, etc.)

## Smart Pose Guidance within the AR (AI Director Mode)

On-screen instructions:

- “Stand here”
- “Raise your hand to match”
- “Lean slightly left”
- “Move closer”
- “Match shoulder height”

AI ensures:

- Height alignment
- Skin tone balance
- Lighting match
- Depth correction

When perfectly aligned:

- Glow effect
- Auto-capture option

## **Core Interaction Features with text based instruction prompts (Gestures)**

- Hand holding
- Side hug
- Full hug
- Head on shoulder
- Back hug
- Twirl pose
- Spin & catch
- High five
- Finger heart

## **2. Physical Gestures VR (Haptic-Visuals):**

- **Cheek Pulling:** Move your fingers on the screen; the AI deforms the recipient's cheek mesh in real-time to look like a physical pull.
- **The Flying Kiss:** Blow a kiss; a 3D particle "lands" and leaves a translucent lip-mark on the partner's cheek that moves with them.
- **Heartbeat Sync:** Both users place their hands over their phone's camera/sensors. The app detects pulses and vibrates both phones in a

synchronized rhythm. Once synced, a 3D heart "pops" and glows between both chests on the screen.

## 4. Fulfillment & Gifting Feature "Living Memories"

- **Surprise Live Photos:**
  - **The Digital Scratch Card:** Send a link that looks like a scratch card; scratching it reveals the "Merged Photo" with a recorded audio message.
  - **The AR QR Card:** A physical card is delivered. When the recipient scans the QR code, the photo on the card "comes to life" as a **Time-lapse Reel** showing the funny behind-the-scenes moments of the couple trying to figure out the pose.
- **Instant Downloads:** One-click access to the high-res "Perfect Photo" and the "Behind-the-Scenes" blooper reel.

### The "Together Frame" Heart-Note: Real-Time Collaborative Gifting

This feature is designed to be a high-engagement, tactile experience that feels "real" and personal, rather than just another digital message.

#### 1. The Writing Experience: "The 2-Minute Soul Session"

- **Real-Time Collaboration:** Both users open a shared screen where a **coffee-colored, vintage textured parchment** appears. They can see each other's cursors (or handwriting) in real-time.
- **The 2-Minute Timer:** A vintage brass-style countdown timer sits at the top. This creates a "flow state" where partners focus only on their feelings, making the words more raw and authentic.
- **Tactile Input:** Users can either type (using a classic typewriter font) or "hand-write" using their finger/stylus. The **Atrament.js** library ensures the ink looks like it's actually soaking into the paper.

#### 2. The Gifting Experience: "The Wax-Seal Reveal"

- **The Email:** The partner receives an email with a high-fidelity **3D Wax-Sealed Envelope** (using a Lottie animation).
- **The Tap:** They must physically "tap" the wax seal on their phone screen. The seal cracks with a satisfying haptic vibration and sound effect.
- **The Reveal:** The envelope opens, and the coffee-colored letter unfolds with a **gentle paper rustle** (High-quality 8D audio).

- **The VR Twist:** If the recipient has a VR headset, they can "sit" in a virtual cozy room (e.g., a library or by a fireplace) where the letter appears as a physical object they can "pick up" and read.
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## Als or APIs required:- ( RESEARCH ONLY)

Category	Tool / API Name	Key Use Case for Your Brand	Official Link
<b>Real-time Presence</b>	<b>NVIDIA Maxine</b>	"Teleports" person into partner's room; matches lighting (Relighting).	<a href="#">NVIDIA Maxine SDK</a>
<b>Interaction &amp; Face</b>	<b>Banuba Face AR SDK</b>	Enables "Cheek Pulling" (skin stretching) and 3D face mesh triggers.	<a href="#">Banuba AR SDK</a>
<b>Web Experience</b>	<b>Snap Camera Kit</b>	<b>(Gemini Said)</b> Needed to build "Flying Kisses" and WebAR on your site.	<a href="#">Snap Developer Portal</a>
<b>AR Creation Tool</b>	<b>Lens Studio 5.x</b>	Desktop software to build 3D hand tracking and facial mesh interactions.	<a href="#">Download Lens Studio</a>
<b>Visual Blending</b>	<b>Adobe Firefly API</b>	Automatically matches shadows/colors of two photos for a perfect merge.	<a href="#">Adobe Firefly API</a>
<b>Lighting Correction</b>	<b>Clipdrop Relight</b>	Fixes facial lighting post-photo to match the new destination room.	<a href="#">Clipdrop APIs</a>
<b>Image Perfection</b>	<b>Claid.ai</b>	Upscales grainy phone photos into high-res (300 DPI) prints.	<a href="#">Claid.ai API</a>
<b>AR Physical Gifts</b>	<b>8th Wall</b>	Makes Polaroids "come to life" via a browser scan (No app needed).	<a href="#">8th Wall</a>
<b>Sync &amp; Video</b>	<b>Twilio Video / IVS</b>	The low-latency engine for the live photoshoot connection.	<a href="#">Twilio Video API</a>
<b>India Fulfillment</b>	<b>Printrove / Qikink</b>	API-based printing and shipping for Polaroids and gifts in India.	<a href="#">Printrove API</a>

**Posing OutlinesMediaPipe / ARCore** (Pose Estimation)

**Skin StretchingBanuba Face Mesh** (Vertex Deformation)

**Heartbeat Sync - Heartbeat SyncHealthKit (iOS) / Google Fit / Photoplethysmogram (PPG)** via Camera Sensors

**Merged Background**NVIDIA Maxine (Live Video Segmentation)

**Time-lapse Bloopers**Screen Recording + AI Auto-Edit

**Physical Delivery**Printrove API (India-wide Logistics)

**Trending Reels**Shotstack Best for programmatic, music-synced auto-editing.

**Time-lapse Bloopers**InVideo AI Simplest "Photo-to-Video" automation.

**Dance Tutorials - MediaPipe**Tracks body movement to give "Stand Here" instructions.

**Heartbeat Sync**HealthKit (iOS) / Google Fit

**Parchment Canvas**HTML5 Canvas + Atrament.jsProvides smooth, "inky" handwriting on custom textures.

**Interactive Email**AMP for Email / LottieHandles the "Tap to Open" wax seal animation inside the inbox

**.Audio Effects**Howler.jsProfessional management of the paper rustling and wax cracking sounds.

**Real-time Sync**Firestore Realtime DatabaseEnsures both partners see the typing/writing instantly without lag.

**2-Min Timer**JavaScript **setInterval** LogicSimple, reliable countdown that locks the letter once time is up.

THE THEME OF THE WEB APP WILL BE FRIENDLY, COUPLE AND FAMILY CENTRIC, NOT VERY LOUD, IT SHOULD FEEL EMOTIONAL WITH VISUALS, FONT AND COLOURS. IT SHOULD BE VERY EASY TO NAVIGATE. IT SHOULD FEEL HUMAN BASED AND NOT ROBOTIC.