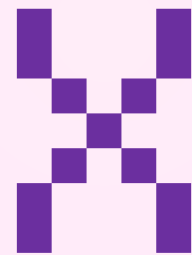


PROTOTYPE PROPOSALS



PROTOTYPE 1

Optimization of the glasses model

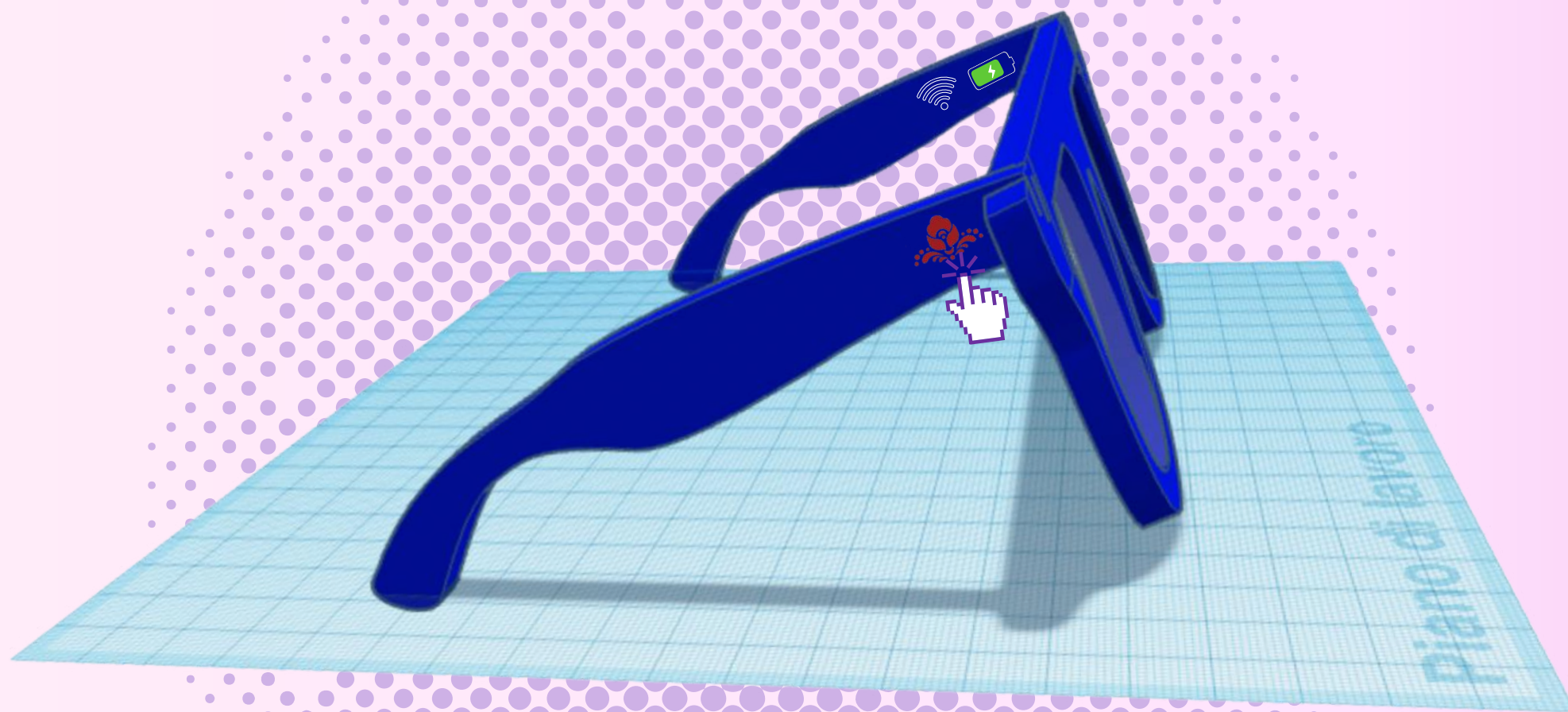
- **Assistive reading:** Using the front-facing camera, they frame the text (for example, labels, instructions or books) and transform it into audio, playing the content through a side speaker.
- **Fall Detection:** A built-in motion sensor detects sudden falls or erratic movements, sending an automatic alert to emergency contacts or a rescue center.
- **Microphone for voice commands:** Allows you to activate functions such as reading text via voice commands, improving interaction with the device

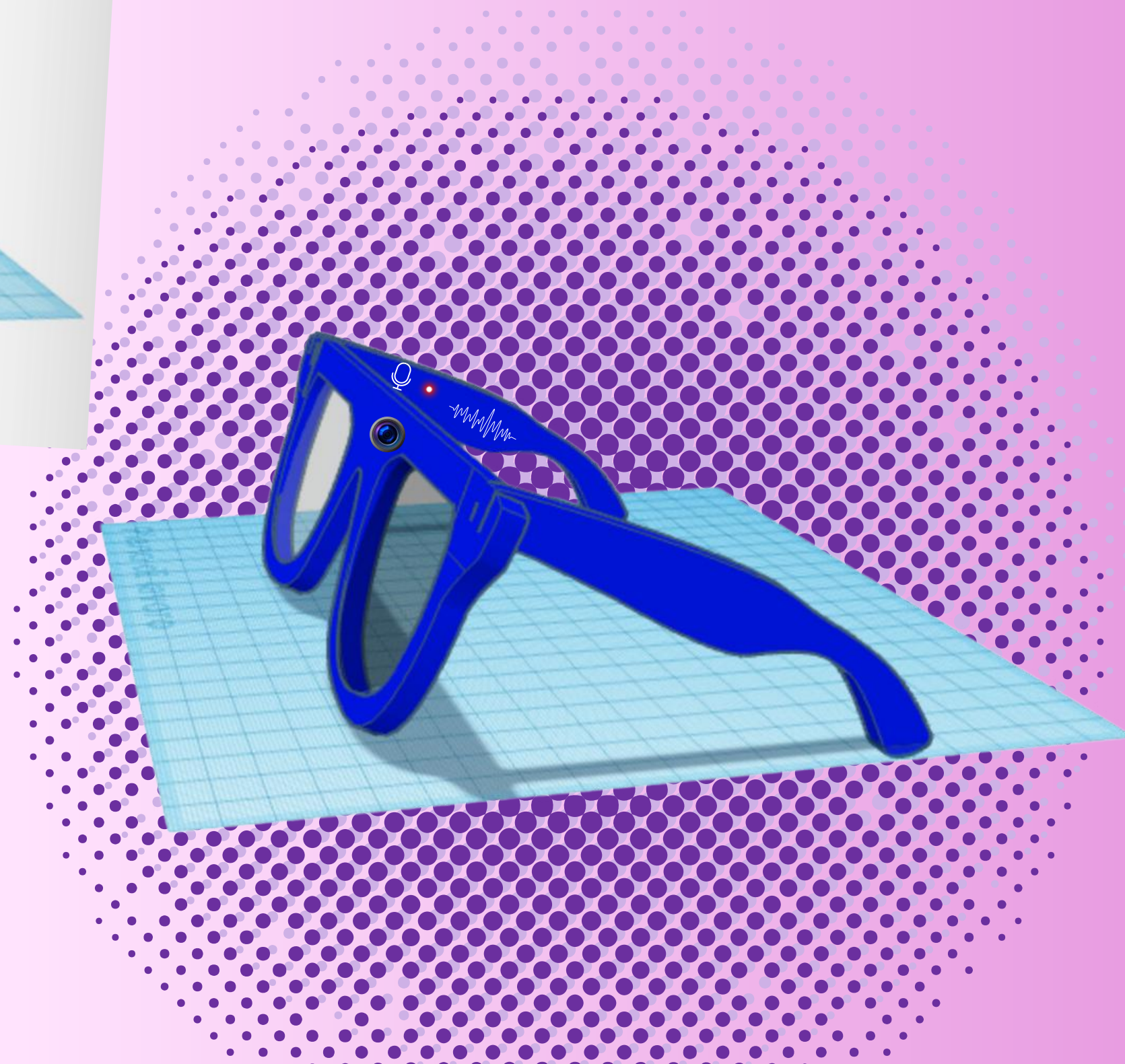
- **Wi-Fi Connection:** One button to activate Wi-Fi, useful for software updates and connectivity with other devices.

- **Charging Case:** A compact, protective case that automatically charges your glasses via wireless charging or USB-C.

- The glasses feature automatic **contrast adjustment**, adapting to surrounding light for optimal vision.
- The **design** has been optimized with a lightweight, durable and everyday model in mind, with an aesthetic inspired by Russian tradition, with cool tones and typical textures, combining advanced technology and cultural style.









PROTOTYPE 2

Book on Russian Traditions and Works of the Hermitage - Association with Smart Glasses

1. Theme of the Book

- The book is dedicated to Russian traditions and presents a selection of the most important works preserved in the Hermitage, one of the most famous museums in the world.
- A historical, cultural and artistic overview is provided, exploring in detail the artworks, customs, places and events that define Russian culture.

2. Photography and QR Code

- Each chapter of the book is enriched with high-quality photographs showing the most significant works of art, artifacts and places related to Russian tradition.
- Under each photo there is a QR code, which the user can frame using the camera integrated into the smart glasses.

3. QR Code Framing

- The camera integrated into the smart glasses is able to automatically frame the QR code in the book, activating a reproduction of information related to the photograph or object in question.

4. Audio Playback

- Once the QR code is framed, the glasses' camera transmits the audio description of the images via the speakers integrated into the glasses.
 - The description provides details on the Russian tradition, the historical and cultural context of the works, and in-depth information on their importance within the Hermitage.

5. Waveguide Technology and Display

- The glasses feature a waveguide display, which projects text and information directly into the user's field of vision, without distractions, and with a discreet design.

6. Voice Commands and Microphone

- The glasses integrate a microphone for voice commands, which allows you to easily interact with the device, activating audio playback or other functions without using your hands.

7. Automatic Contrast Adjustment

- The glasses automatically adapt to light conditions, adjusting the contrast to ensure the best visibility of visual and audio information, regardless of the surrounding environment.

USER EXPERIENCE

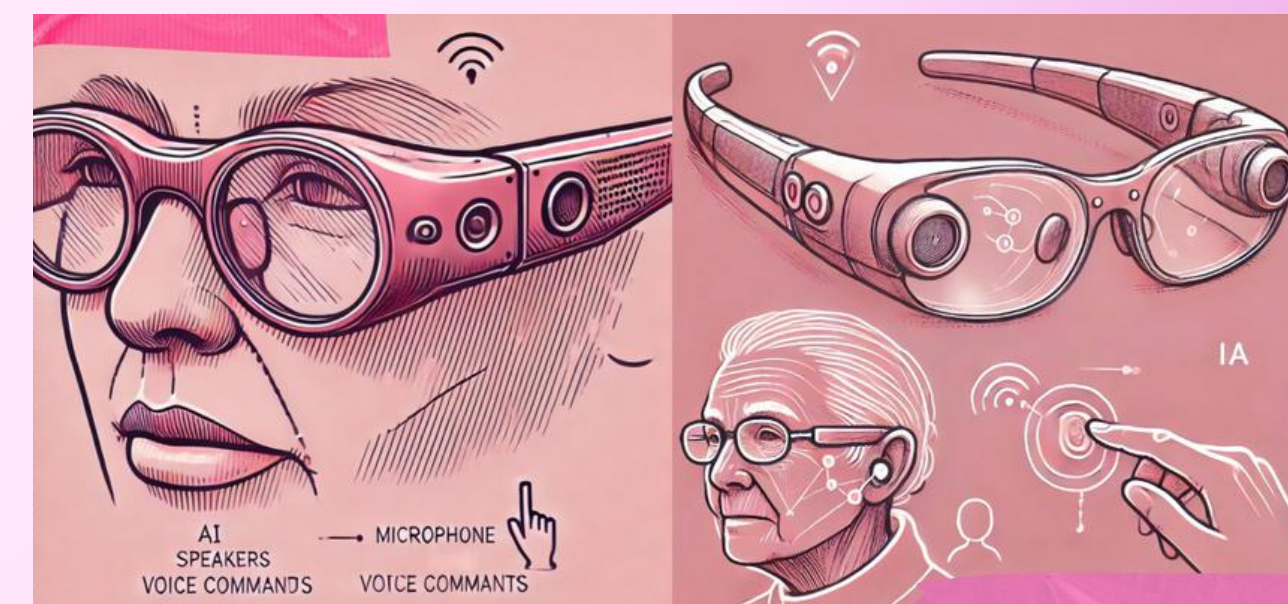
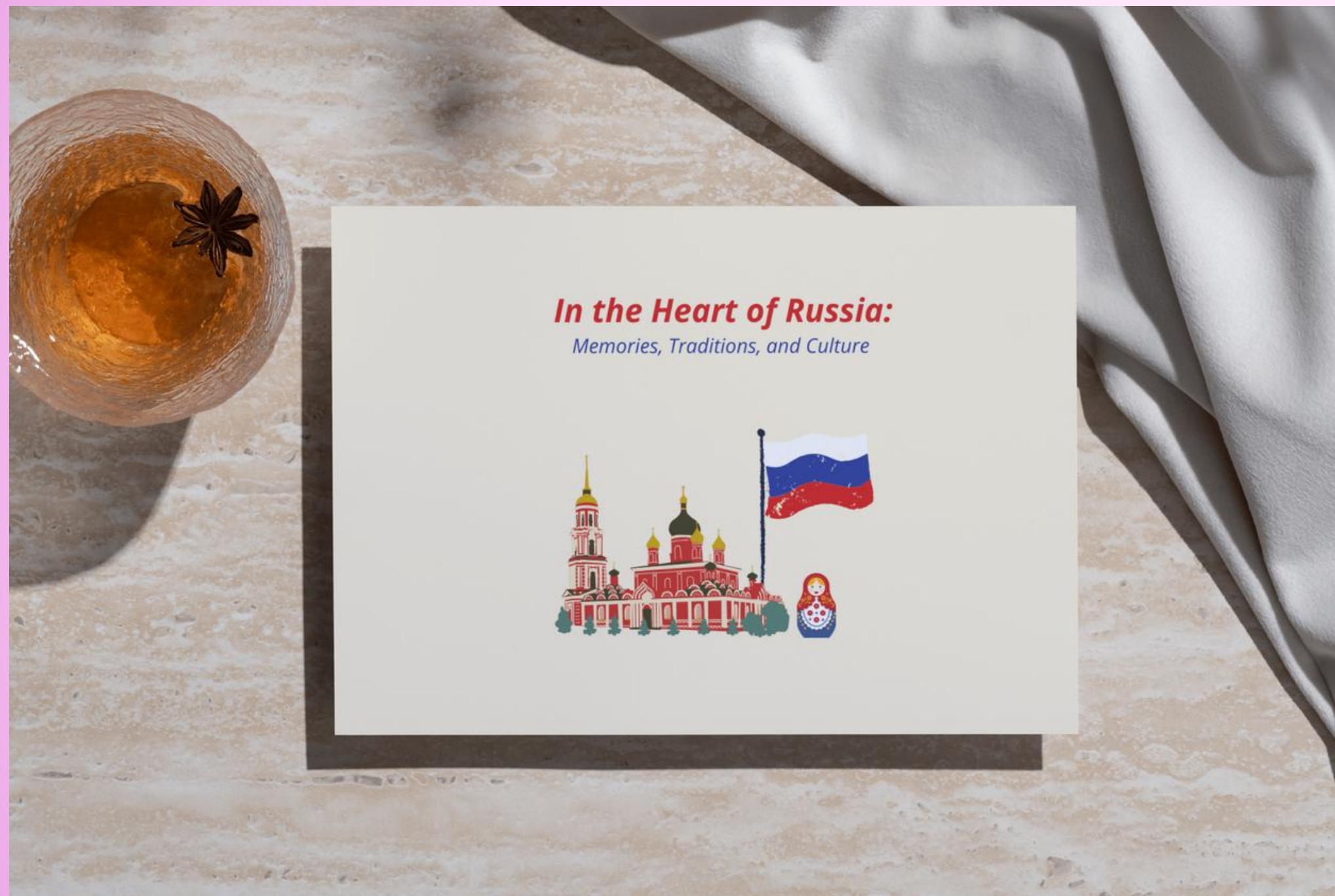
9. Immersive and Educational Experience

- The combination of the book and the glasses creates an interactive and immersive experience, allowing users to explore and learn about Russian traditions and artwork in a unique and engaging way.
- Each image in the book becomes an opportunity to explore Russian culture and history in depth thanks to the integration of advanced glasses technology.

10. Benefits for the Elderly

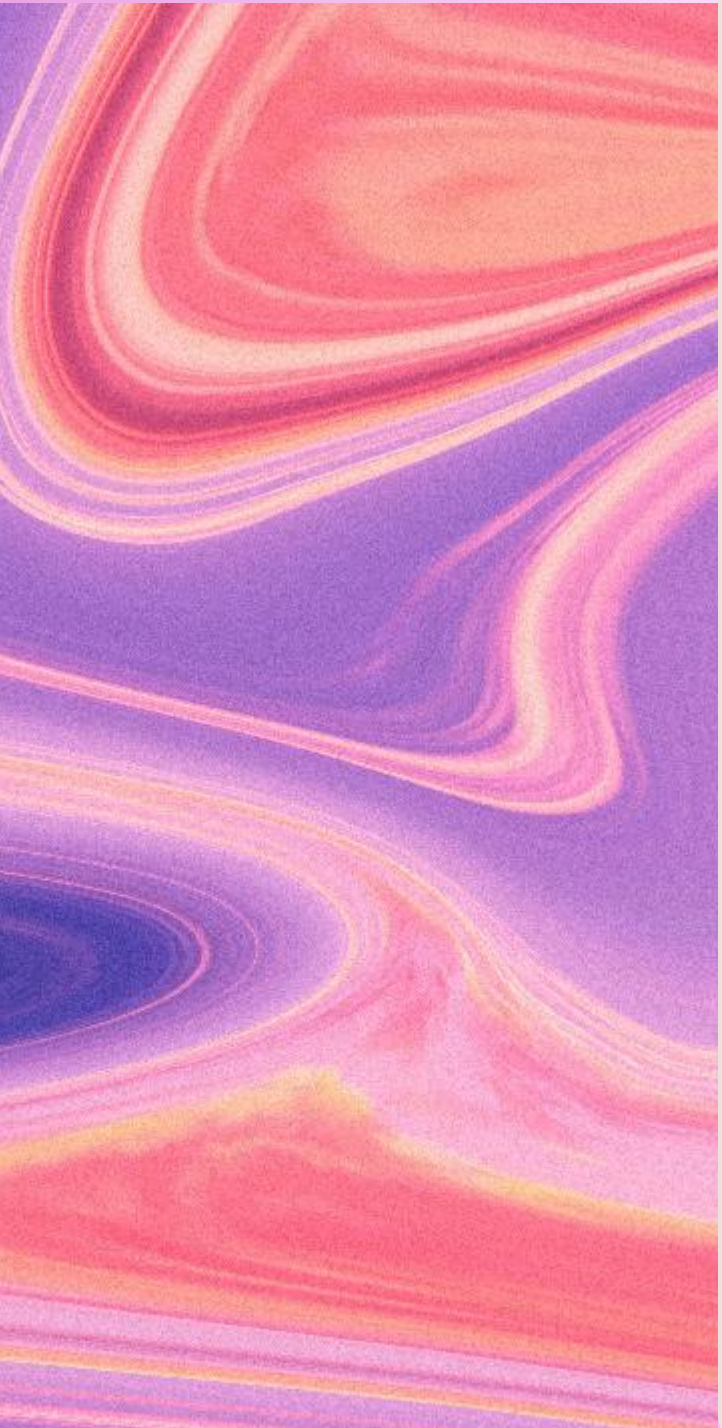
- The book and glasses are designed with the aim of simplifying the cultural experience for seniors, making access to historical information and content easier and more stimulating.
- The audio reading system and simple interface also allow those with visual or motor difficulties to fully enjoy the information.

This description highlights how the book, together with the smart glasses, offers a unique experience, which blends technology, tradition and culture, making learning more accessible and engaging.



PROTOTYPE 3

Smart Glasses for Seniors with Alexa Connection



- Alexa Connection: Connect to external Alexa devices for voice command use.

- Built-in Microphone: Allows you to interact with Alexa hands-free.

- Text-to-speech camera: Captures text and reads it out loud via Alexa.

- Fall Detection and GPS: Sends alerts to family members with location in case of a fall.

- Drop In Feature for Family Members: Allows family members to monitor and talk to the user.

- Dual Side LED Flashlights: Provides safety illumination in low-light environments.



Finally, it is worth noting that the budget can vary greatly depending on the chosen prototype. If there are no financial constraints, a further alternative could allow the coexistence of all three proposed options.