

Project Report

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How To Use:

step-1

Download the piano.apk app from the google drive link and install it.

step-2

Download the target images from the piano target folder.

step-3

open the app and point the camera to the target piano image and play.

Target Image:



Limitations:

Augmented Reality (AR) piano apps have several limitations, which are important to consider:

Physical Feedback: One of the biggest limitations is the lack of physical feedback. Unlike a real piano, AR piano apps can't replicate the tactile sensation of pressing piano keys, which is crucial for developing finger strength and dexterity.

Sound Quality: The sound produced by AR piano apps may not accurately replicate the acoustics of a real piano. This can affect the learning experience, as the nuanced sound of each note on a real piano is difficult to mimic digitally.

Spatial Awareness: AR piano apps might struggle with accurately placing the virtual piano in a real-world environment, especially in cluttered or poorly lit spaces. This can affect the user's ability to interact with the app effectively.

Latency and Responsiveness: There may be a noticeable delay between the user's actions and the app's response, which can disrupt the flow of playing and learning. This latency can be a significant barrier to developing rhythm and timing skills.

Limitation in Range and Features: AR piano apps may not offer the full range of keys or the variety of features (like pedal effects) that a real piano has. This can limit the complexity of pieces that can be played and learned.

Dependency on Technology: These apps require a smartphone or tablet with sufficient processing power and a compatible AR platform. Users with older or less powerful devices may not have the best experience.

Learning Curve: While AR piano apps can be intuitive, there might still be a learning curve associated with understanding how to interact with a virtual instrument, which could be challenging for some users.

Battery and Power: Using AR technology can drain device batteries quickly, limiting the duration of practice sessions.

Cost: While cheaper than buying a real piano, some AR piano apps might require in-app purchases or subscriptions to unlock all features, which can add up over time.

Limited Teaching Capabilities: While these apps can provide basic lessons and guidance, they may not be able to offer the personalized feedback and adaptability of a human teacher.

These limitations highlight the gap between using an AR app and practicing on a real piano, although AR piano apps can still be a valuable tool for beginners or as a supplement to traditional learning methods.