BRAILLE TOY

Bridging Braille with Voice, Touch, and Technology

Problem Statement

Millions of visually impaired children struggle to learn the alphabet and words without engaging and accessible tools.
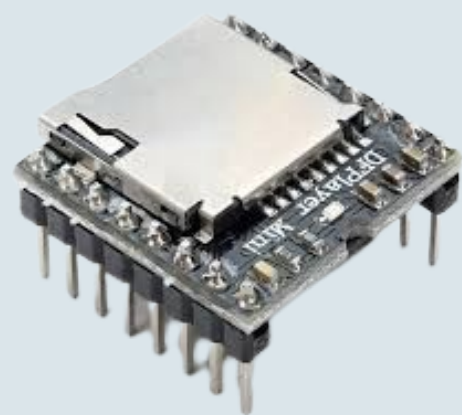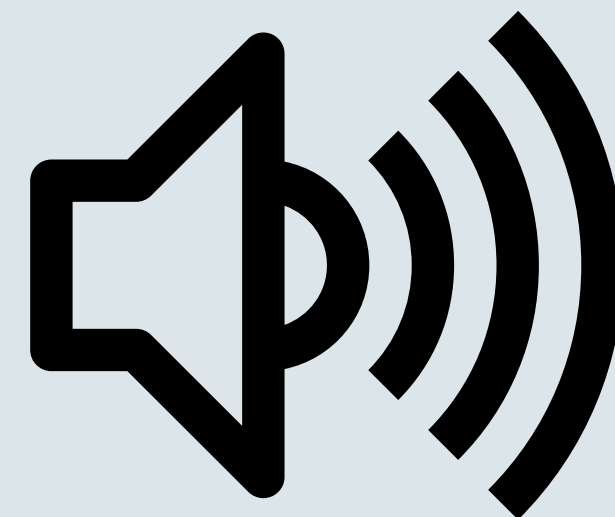
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Key Components Used

LCD Display

NFC tags

Tactile input (buttons)

DFT-MP3

ESP32-S

Speaker

Project Objectives

To build a smart Braille-based toy that helps visually impaired individuals learn letters, form words, and receive audio feedback using:

Working Flow

https://www.mermaidchart.com/raw/535212d8-5fc3-4cf8-b1e6-7f1a0d0d2bc7?theme=light&version=v0.1&format=svg

Impact & Use Case

- Can be used in special schools, Braille learning centers, and home learning.
- Encourages independent learning through tactile and auditory channels.

Future Enhancements

vibration feedback

- Include vibration feedback for deeper sensory cues.

NFC & Word libraries

- Expand with more NFC tags and word libraries.

App interface

- Develop an app interface for parental tracking.

Thank you