



SYMPHONIX

YenMozhi

Giving a voice to interact with the World



HealthCare

PRAVEGA

PROBLEM STATEMENT

- Millions of **autistic and speech-impaired individuals** struggle to express even basic needs.
- Their **communication challenges** create daily barriers that affect safety, learning and independence.

“சொல்லத் தெரியாததால்... அவர்களின்
தேவைகள் கூட சொல்லப்படாமல் போகின்றன”

Current Autism Scenario:

- Tamil Nadu : 3-4 lakh individuals (approx.)
- India : 1.8-2.0 million children (1 in 68)
- Globally : ~62 million people (≈1 in 127)



Fig.: Live interaction with Autistic students in a school



Fig. : Autistic students

Key Problems

- **Non-verbal or minimal verbal individuals** cannot express needs, emotions or discomfort.
- Existing AAC devices are **expensive, complex** or require smartphones/ internet - not suitable for all families.
- Many children have **motor coordination issues**, making it difficult to press buttons or operate devices.
- In emergencies, they are **unable to call for help**, increasing risk and caregiver stress.
- **Lack of affordable**, stand-alone tools results in dependence, frustration and social isolation.

OUR SOLUTION : “YENMOZHI”

YenMozhi is a **stand-alone assistive device** that **converts the natural sounds** made by autistic or speech-impaired individuals into **clear, meaningful voice outputs**.



Fig. : Live interaction with Autistic student



Fig. : YenMozhi Product (MVP) size

“ஒரு சிறிய சத்தம்... ஒரு தெளிவான குரலாக மாறுகிறது”



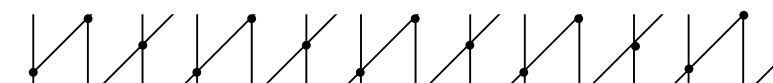
Fig. : YenMozhi Product (MVP)



Fig. : YenMozhi Product Design

What YenMozhi Does?

- **Transforms unique sounds** (like “thaaah” for water, “eehh” for help) into peaceful phrases.
- **Tap-to-activate** design makes it usable even for children with motor challenges.
- **Works offline**, without smartphones, apps or internet.
- Provides, **lightweight** and designed specifically for autistic users.
- Built to be **affordable** for families, schools and NGOs.



HOW IT WORKS

Tap to Activate

A gentle tap wakes the device. No buttons, no menus - designed for children with motor difficulties.

Device Listens

Within 2-3 seconds, the microphone becomes active and waits for the user's sound.



User makes a natural sound

The child produces their familiar sound or cue (e.g., "thaaah", "eehh" or a simple vocal trigger)

Sound → Mapped Phrase

The device instantly matches the sound with the correct predefined phrase.



Fig. : YenMozhi Product (MVP)

Clear voice output

A loud, clear audio message is spoken through the speaker (eg., "I need water", "I need help")

Tap again to turn off

Simple power cycle for independent use.

“ஒரு சத்தம்... ஒரு செய்தியாக மாறும் எளிய நடைமுறை”



Fig. : Collecting samples

KEY FEATURES

“சிறிய சாதனம்... பெரிய மாற்றத்தை
உருவாக்குகிறது”

Converts Natural Sounds to Clear Speech

Identifies the user's familiar **vocal cues** and instantly plays the mapped phrase.

Tap-to-Activate Interaction

Simple **tap mechanism** designed for children with autism/ motor challenges - no buttons, no complexity.

Stand-Alone Device (No Phone Needed)

Works completely **offline**, without mobile apps, internet or screens.

Ultra-Portable & Child- Friendly

Lightweight, small and safe to carry in pockets or bags.

Instant Emergency Alerts

Helps users communicate **urgent needs** quickly and clearly.

Affordable & Scalable

Prototype : ₹450–₹600

MVP : ₹1300–₹1600

Designed for families, schools, NGOs, therapy centers.

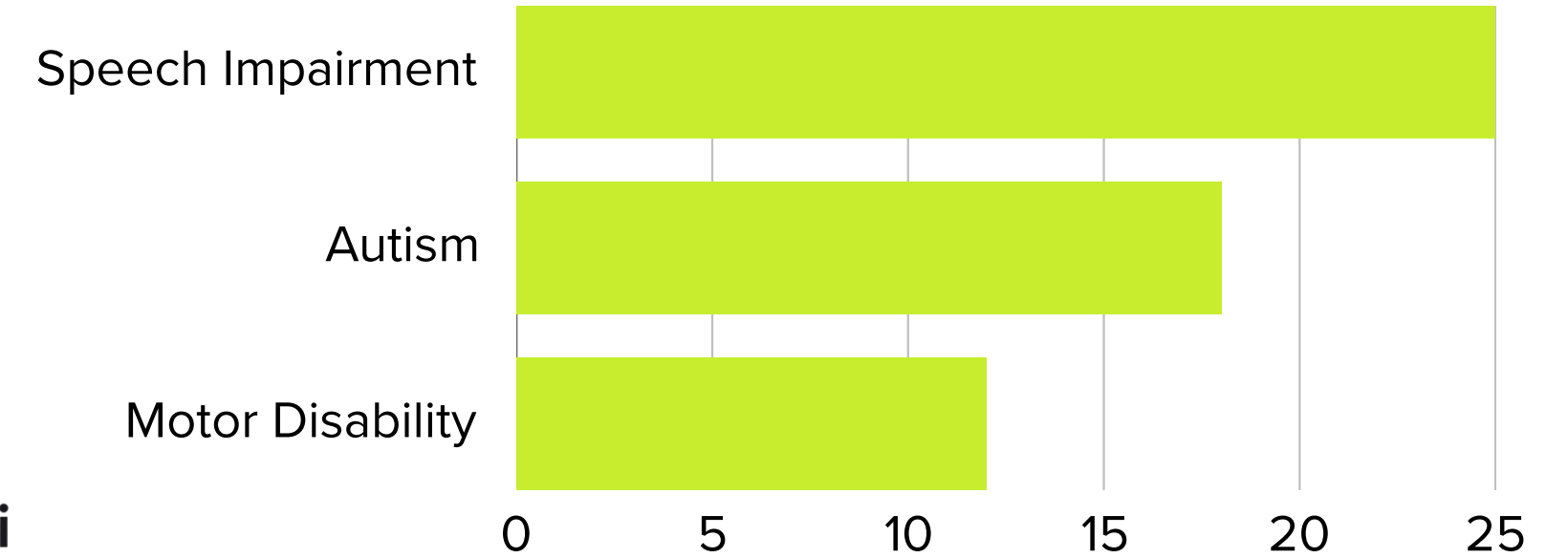
TARGET USERS & MARKET OPPORTUNITY

Primary Target Users

- **Autism children** (non-verbal or minimal verbal)
- **Speech-impaired** individuals
- Children with **cerebral palsy**
- Individuals with **motor coordination difficulties**
- **Special schools**, therapy centers, rehabilitation centers
- **NGOs** supporting children with development disorders



Count in Lakh



“அணுக முடியாத உதவிகளை... அனைவருக்கும் அணுகக்கூடியதாக மாற்றுவதே YenMozhi”



Reason YenMozhi fits the Market

- **Works offline** → ideal for rural & low-income communities
- Extremely **affordable** compared to existing AAC devices
- **Simple user interaction** suits children with cognitive & motor challenges
- Built specially for Indian users

TECHNOLOGY & SYSTEM OVERVIEW

Core Hardware

- Microcontroller-based system (low-power, fast response)
- Audio/ sound Detection Module for capturing user vocal cues
- Speaker module for clear voice outputs
- Rechargeable Li-ion battery with safe power management
- Custom-built lightweight chassis designed for daily use.

Fig.: Official YenMozhi Website – yenmozhi.vercel.app →

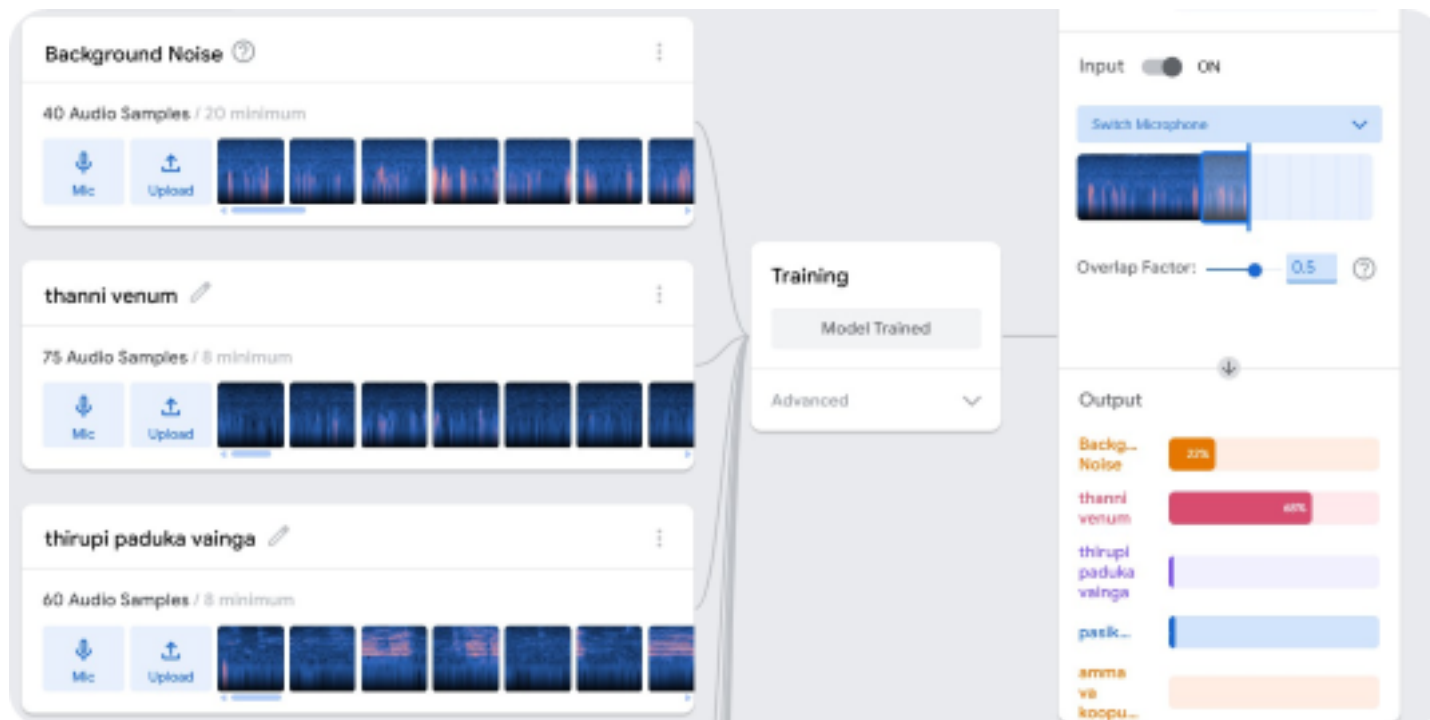


Fig.: [YenMozhi Presentation video](#) →



Core Software & Intelligence

- **AI-assisted** sound classification for identifying user-specific vocal cues
- **ML-based** predefined phrase mapping, improving accuracy over iterations
- Embedded firmware enabling **offline real-time** processing
- **Tap-to-activate** logic for simplified interaction
- **Latency-optimized** audio response (2-3 seconds)



Traction & Achievements

“வாழ்க்கையை மாற்றும் தீர்வாக... YenMozhi ஏற்கனவே பயணம் தொடங்கிவிட்டது”

Real-World Testing

- **Successfully tested** with autistic school children
- **Positive feedback** from teachers, therapists & parents
- Validated usability, clarity and **child-friendly** interaction

Community Impact

- Demonstrated in **multiple schools & rural outreach** programs
- Engaged with **autistic children** directly for data & needs study
- Strong emotional acceptance from parents & caregivers



Prototype Progress

- **Working MVP** functional for voice mapping
- **Pocket-friendly**, portable design validated
- **Field-tested** in real conditions



Recognitions & Awards

(portfolio).

- Best Innovator Award - Presidency College (State Level)
- 2nd Prize - Anna University National Science Day Expo
- CII Emergence Hackathon - Winner (State level)
- AIIC Hackathon, Madurai (Runners)
- Multiple district & state-level awards (12+ overall)



Business Model

“சிக்கலான தொழில்நுட்பம் அல்ல... எளிதான உதவியைக் கொடுக்கும் தொழில்நுட்பம்”

Device Distribution

- YenMozhi devices are supplied to schools, therapy centers, NGOs and Government programs.
- The focus is impact, not profit.

Pricing

Prototype Cost : ₹450 – ₹600

Final Product Cost (MVP) : ₹1300 – ₹1600

40% of autistic users have motor issues

1 in 100 children has autism

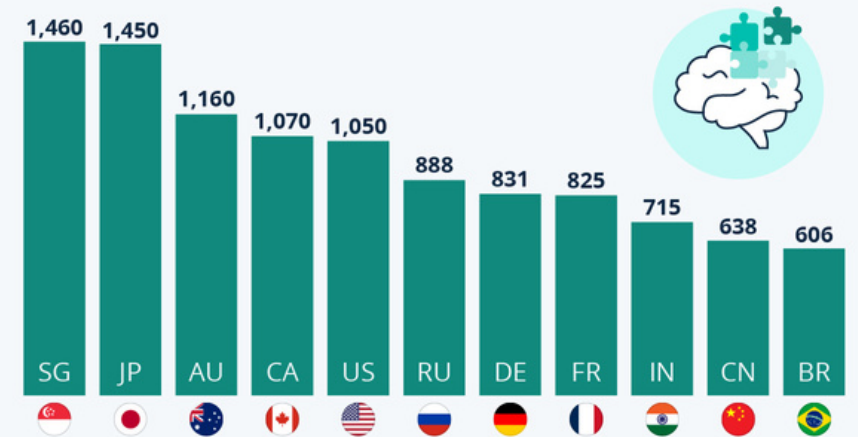
1.3B people live with disabilities

75M+ autistic individuals worldwide

1 in 6 people face mobility challenges

How Autism Diagnosis Varies Around the World

Number of children diagnosed with autism spectrum disorder in selected countries in 2021 (per 100,000)



Important to note: High diagnosis rates can also indicate good detection and diagnosis capabilities.
Source: World Population Review



statista



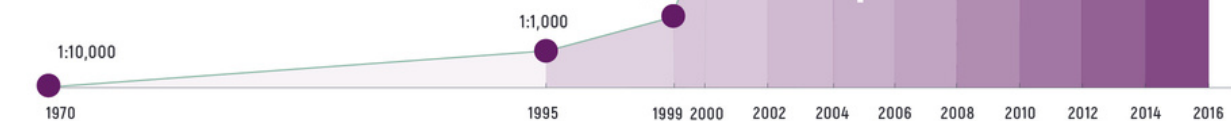
B2G & Institutional Partnerships

Bulk deployment through Government schemes, CSR initiatives, health & education departments, ensuring the device reaches low-income & rural users



Autism prevalence has increased

178%
Since 2000



thetreetop.com

*ADDN (Autism and Developmental Disabilities Monitoring Network)

Vision (Next 2 Years)

Become Tamil Nadu's Most Accessible Assistive-Tech Solution

Deploy 500+ Units Across schools & Therapy centers



Establish Strong Community & Clinical Validation



Expand the Product Line



Fig. : YenMozhi Product (MVP)



*“Innovation is not about creating machines;
it’s about creating hope”*



Financial/ Costing & Funding Ask

Initial Funding Ask : ₹3–5 Lakhs

To build **300+ units**, run pilots & refine the final device

Fund Utilization

- 40%** - Manufacturing & Component Procurement
- 30%** - Product Improvement & Testing
- 20%** - School/ NGO Pilot Deployment (Free Units)
- 10%** - Training, Packaging & Outreach Materials

Why we need support

- YenMozhi is not a **profit-driven** product.
- It is built to reach children who need it most - many from **low-income** or rural backgrounds who cannot afford assistive devices.
- **Government & institutional support** will help us place this device directly into their hands at zero or minimal cost.