

# Pitch Deck Template

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MUMBAI HACKS



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# Sign-to-Speech Technology

Team:-Futureforge

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## Problem Statement

This technology enables seamless real-time communication between sign language users and speakers.

### Interaction

Sign-to-Speech empowers hearing or speech-impaired individuals to engage fully in social and professional settings.

### Inclusivity and Empowerment

The system captures gestures via cameras, processes them with machine learning, and generates spoken output.

### Technical Process

## Solution

### **Gesture Recognition**

Cameras and wearable sensors capture hand movements, facial expressions, and body posture for sign detection.

### **Machine Learning Interpretation**

Machine learning models map recognized gestures to words or phrases in spoken language.

### **Natural Language Processing**

Ensures grammatical accuracy and contextual relevance in the translated text output.

### **Speech Synthesis**

Converts interpreted text into audible speech, completing the communication loop in real-time.



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Screenshot 1

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Screenshot 2

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Screenshot 3

# Business Model

## Revenue Streams

### a) Subscription Model

₹199–₹499/month for individual users

Premium voice packs, unlimited translations, offline mode

### b) Institutional Licenses

Schools / hospitals / companies: ₹20,000–₹1,50,000 per year depending on size

Training + admin dashboard included

### c) API / SaaS Integration

API billed **per 1,000 translations**

Integration for EdTech apps, telemedicine, help centers

## Anything else?

### Immersive AR and VR Integration

Integrating Sign-to-Speech with AR and VR creates immersive, seamless communication in virtual environments.

### Multilingual Sign Translation

Future systems will translate sign language into multiple spoken languages for broader global use.

### Wearable Technology Advances

Smart gloves and AR glasses will enhance portability and affordability of Sign-to-Speech devices.

### AI Accuracy and Adaptability

Improved AI algorithms will boost accuracy and adaptability in diverse and challenging environments.

A complex network graph composed of numerous small, semi-transparent grey dots connected by thin grey lines, forming a dense web-like pattern across the left side of the slide.

# Thank you

One line about your favorite part of MumbaiHacks 2025!