
SignBridge
No sign shall be left unheard !!
Hocrux

The Open Spellbook of Innovation

The Theme ? Why Open Innovation?

- Sign-Bridge is being made under open innovation so that no sign remains unheard.
- Open innovation invites cross-disciplinary collaboration
- We ensure universal reach — anyone, anywhere, can benefit.





The Unheard Incantation

The Problem ? What's the Silent Spell?

- Thousands of individuals who communicate through sign language face a lack of real-time accessibility in mainstream video conferencing platforms like Google Meet, Zoom, and Teams.
- Current tools offer limited or no live sign language recognition, making conversations exclusionary.
- This gap leads to communication delays, social isolation, and reduced participation in digital spaces.
- The "**magic**" of expression remains invisible when hands can’t be heard.



The Spell (Solution)

✦ Casting the SignBridge Spell

User Gestures



From signs to sounds

Electron App Captures

Text Appears + TTS

Zoom/ Meet/ Teams Understands

Virtual Mic

From signs to sounds, streamed directly into any magical meeting room!

The Magic Behind



The Magic Behind the Spell

Mediapipe Hands – The Sorcerer's Lens to see and track gestures in real time.

Custom Gesture Model – trained to recognize vital signs like 'Hello', 'Help', etc.

JavaScript & Electron – Our magic wand combo for building a cross-platform app.

Text-to-Speech Incantation Converts gestures to voice with browser spell: `speechSynthesis.speak()`

Virtual Camera & Mic Charms Streams translated video/audio into Zoom, Teams, and beyond



A Glimpse into the Grimoire



Real-time translation, overlaid directly on your magical meeting. Not just magic – it's SignBridge.

The Wizard's Heart

The Wizard's Heart: Why This Matters



"Deaf and mute people can be in the same meeting... but are they ever in the same conversation?"

- SignBridge brings equity to the digital table
- Reduces isolation and empowers unheard voices
- Boosts confidence and participation
- Builds a world where no hand wave goes unnoticed

Because silence should never mean invisibility.

Future Spells

- Multi-language Support: Translate gestures into ‘Bonjour’, ‘Hola’, Namaste’ and more
- Emotion-aware TTS: Smile detected → cheerful voice; sad face → empathetic tone
- Custom Sign Training: Let users teach personal signs to the system
- Multi-purpose Approach: Sign Language-->Text-->Voice



Meet the Wizards



Ishita Goyal

Arjit Sharma





Apoorv Mehrotra

Sreehitha Thati




Thank You
Noble Council
Being different isn't a bad thing. It means you're brave enough to be yourself.