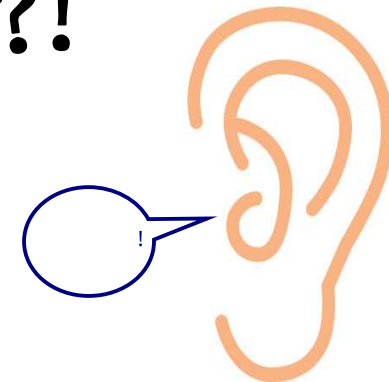




The **ears** do the talking as well as the mouth . . . ?!



NAP ENTERPRISE CO.,LTD.

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NAP ENTERPRISE Co.,Ltd. noticed that the voice is emanated not only from the mouth but also the "ears" when people make sounds. If sounds are gathered from an airtight ear, it's possible to block out outside noise and collect only clear voice by the microphone.

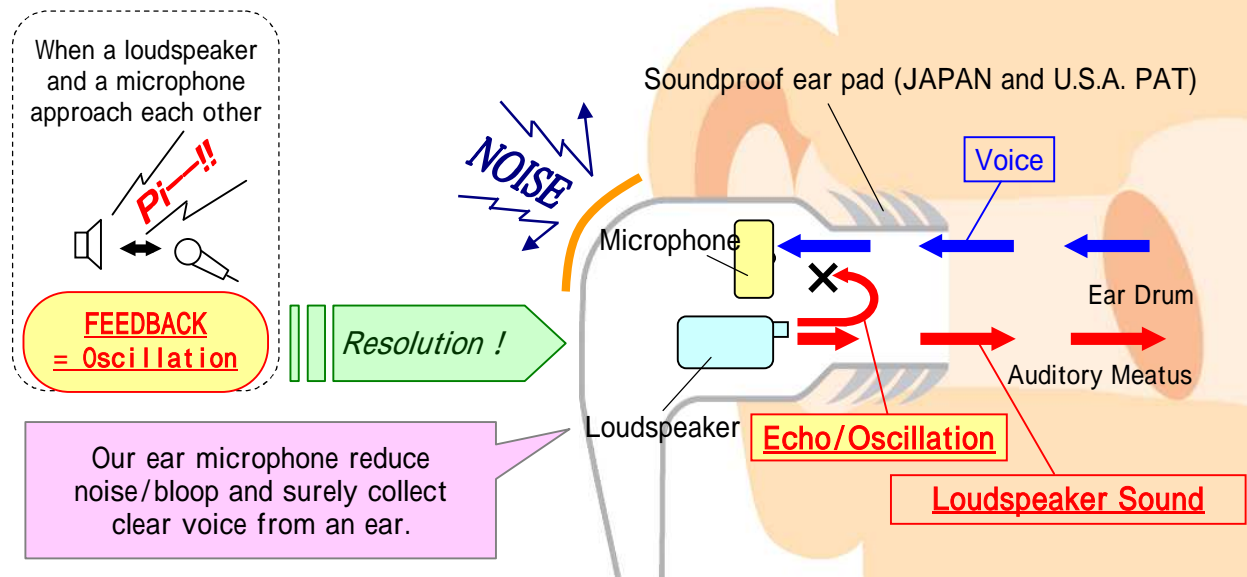
Our inCore resolved many problems and established this technology.

It is the epoch-making invention which can solve fundamentally the serious problem of "voice extraction in noise" which many scientists have studied till today. Because of this, Biometrics identification by the voice print in the external auditory canal, which cannot be recorded with voice recognition rate and noiselessly improve the accuracy of security and yet low-cost. In addition, many problems, such as music appreciation / listening study / communication in noisy conditions, are dissolved simply and dramatically.

Furthermore, this technology prevents the noisy workplace and young people's hearing loss due to earphone becoming social problems on a world scale, and can bring an innovation in various field.



## NAP Oscillation/Echo Canceller System (PAT.P)



## 1) . High-quality of sound insulation

Reduce outside noises by soundproof microphone and collect clear voice. Unpleasant noises don't carry to other.

Noises of 25 ~ 30dB are reduced. It's possible to reduce 40 ~ 50dB if using the signal processing by DSP etc.  
(Figure may vary slightly from the shape of an ear or types of noises,etc.)

The sealing-type loudspeaker of high-quality sound is equipped.

Since external noises are intercepted, sounds good also in loud environments.

As sound good if the loudspeaker volume is small, it's easy on the ear. It's also available for a ear protection(earplug) in high-noise environment.

### What's the difference with bone transmission microphone ?

A bone transmission microphone is the technology which converts vibration of a bone to signal with a special pickup microphone. For this reason, although it has a feature of being hard to gather noise, froufrou or the vibration of vehicle seat,etc. will be gathered as a noise. Moreover, as the frequency band is narrow, sounds are not clear and some sound production can't be heard.

**Only inCore can maintain soundproofing in noise environments and gather clear voice.**

## 2) . Very compact design and greater availability

The lightweight and compact design which excels others compared with past headset, handset, and earphone.

It's very light since there is no microphone in the mouth. Especially compared with the heavy headset for noise, the difference is so obvious.  
The combined use with glasses or a helmet is also possible.

It's easily detachable by one hand. The soft pad is comfy fit and hard to come off an ear.

As the pad is made of very soft and special silicon material, it's kind to skin.  
It keeps clean as washing in cold water and alcoholic disinfection are also possible.

## 3) . Available in various products

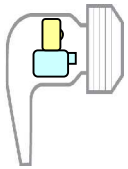
Because of very simple configuration, it can be applied to various products.

For low-cost and high-performance next-generation products.

The component formation is simple and intricate circuits aren't wanted. Useful at different situations on behalf of common headset,etc. at low-cost.

Product variations on **inCORE**

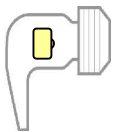
Interactive type (Loudspeaker + Microphone)



The earphone for two-way conversation  
 The earphone for one-way alternate conversation  
 The microphone for input with guidance function



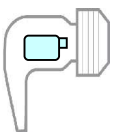
Microphone for Input (Microphone only)



The input microphone for high-noise  
 The high-quality sound input microphone



Earphone for Output (Loudspeaker only)



High-insulation and high-quality sound earphone  
 The ear monitor loudspeaker for professional



Communication  
 Mobile

Cellular phones / PHS  
 Telephone / IP telephone  
 PDA / PC-phone

Computer

Voice Recognition System  
 Automatic Translate System  
 TV phone / TV Conference System

Special Wireless  
 Communication

For Firefighter / the Self Defense Forces  
 For police / Police motorcycle  
 For construction Site / Heavy machine worker  
 For Factory / Airplane Mechanics  
 For Space and Marine Development  
 For Car Races

In-area  
 Communication

In-hospital Communications System  
 In-factory Communicator  
 In-office Networks

Acoustics / PA

Microphone for Studio  
 For Concert / Stadium  
 In-International Conference Hall Translation System  
 In-school Acoustics System

Security

Voice Certification System  
 Voice Pattern Recognition System

Home Appliances  
 Audio Visual

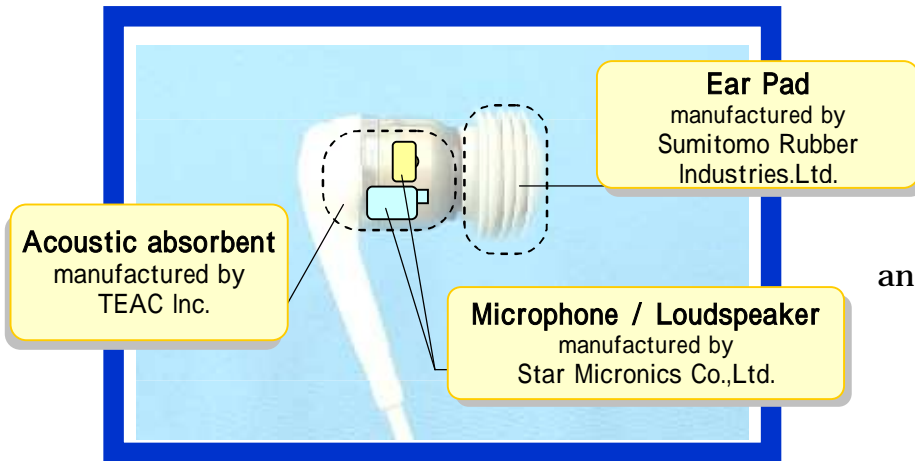
Input device for digital two-way TV  
 Car Navigation  
 Voice Remote Controller  
 High-quality sound earphone  
 Feedback-Free Karaoke

Functional Support

Hearing Aid  
 Loudspeaker for Damaged Vocal Cord

etc.

Ubiquitous society



inCore is supported by the world's most advanced specific technology which only Japanese three makers have.

Due to the full backup to NAP from three companies, these new material, molding skill, high-precision processing technology and our proprietary technology came together, and could establish this technology.

inCore is the crown of Japanese technologies completed by "the dream collaboration" beyond individual corporate frameworks.

## Special Molding Ear Pad

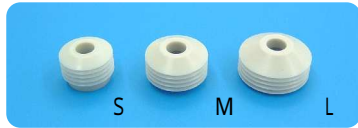
Five-layer fold shut off the outside noise.  
(Registered design / International patent pending)

Realization by the unprecedentedly sophisticated molding skill.

It's comfy fit and kind to skin as it is made of very soft and special sillicon rubber. Long-time wearing is also possible and hard to come off an ear.

It keeps clean as washing in cold water and alcoholic disinfection are also possible.

·Material  
Sillicon rubber  
(Hardness 30)



## Special Acoustic Absorbent

New material with tremendous softness of the hardness 0 degrees.

High-power acoustic absorption reduce echos or oscillation.

The energy amount is decreased by converting the sound energy into heat.

It does execution to intercept the outside noise with the ear pad.

The molding process in the very high-difficult microscopic figuration.

## Ultracompact Microphone and Loudspeaker

[ Microphone ]

The world's smallest high-performance directivity microphone. The voice from an ear is caught certainly.

The fricative and plosive sounds which can be gathered neither by bone conduction nor by the throat microphone are also collect firmly.

[ Loudspeaker ]

Sealing BA type receiver.

As it's for high-class hearing aids, a partner's voice is clear. Very high-quality sound, and the U.S. maker which has the top share of sealing-type earphone also adopts.