

BART AIP Pilot Projects Hearing Loop



July 2018

Office of District Architect



AIP – BART Accessibility Improvement Program



Introducing Hearing Loop





Hearing Loss Facts



- **48 million Americans live with hearing loss**
- **18 million are *under* the age of 65**
- **8 million Californians have hearing difficulty**
- **Hearing loss is an invisible health issue**



Hearing Loss: Hearing Assistance Systems



Infrared (IR) and Radio Frequency (RF) Systems

- Additional hardware required
- IR Need clear line of sight between transmitter and receiver
- RF competition for frequencies
- Older churches and guided tours, Seattle Airport tried it

Loop Systems – Nearly doubling Every Year

- No additional hardware – need T coil hearing aid
- Magnetic field produced – eliminates line of sight issue
- Transit – UK, NYC (640 stations) , Amtrack (5 stations)
- Airports – Austin, Phoenix, Memphis, Nashville, Rodchester
- Other



Hearing Instruments & Cochlear Implants

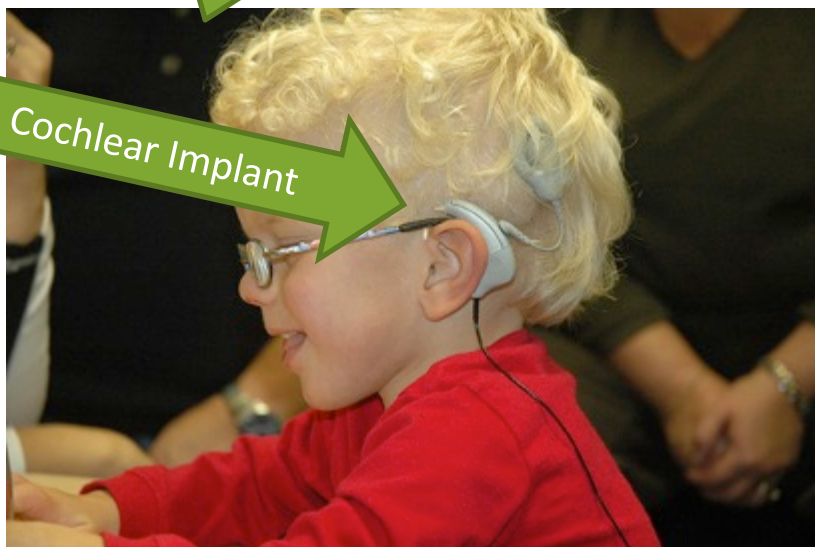


Hearing
instruments &
cochlear implants
amplify sound.

Hearing Instrument



Cochlear Implant

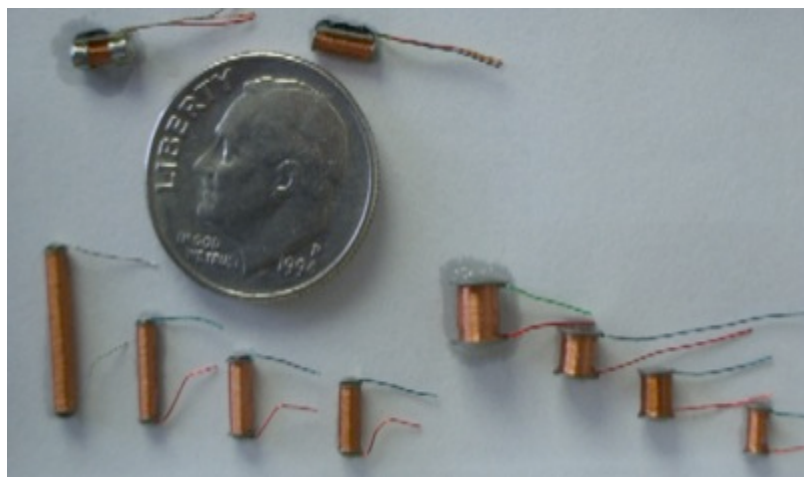


Cochlear Implant





Telecoils or T Coils

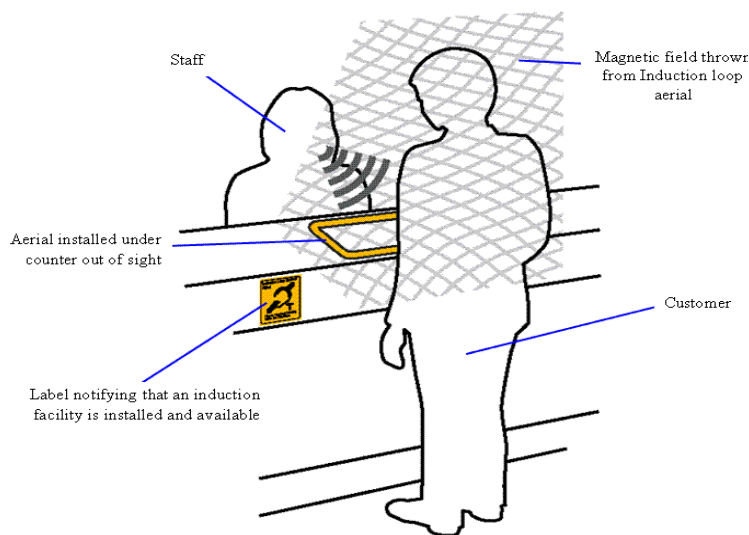




Hearing Loops Improve Hearing Wirelessly



Below is a diagram of a hearing loop at a shop counter or bank:



Below is a diagram of a room hearing loop (e.g. at an event, place of worship etc):

Sound
(Voice from
lecturer)

Microphone

Speech is understood clearly
without background noise

T-coil in
Hearing
Device



Pilot – Fremont Station Agent Booth Loop System



Five Components

1. Counter loop/aerial
2. Hearing loop amplifier
3. Staff unit mic / speaker base station
4. External Microphone
5. External Speaker – not shown

1



2



3



4





Pilot - Fremont Station Platform Signage





BART.gov May 2, 2017

News Story: Pilot Project

