



# Mobile Voice 2010

Spontaneous ~ “Hands-Free”

Mobile Computing & Communications

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**Kopin Corporation**  
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People require their hands . . . to perform their jobs





Picking



Harsh Environments



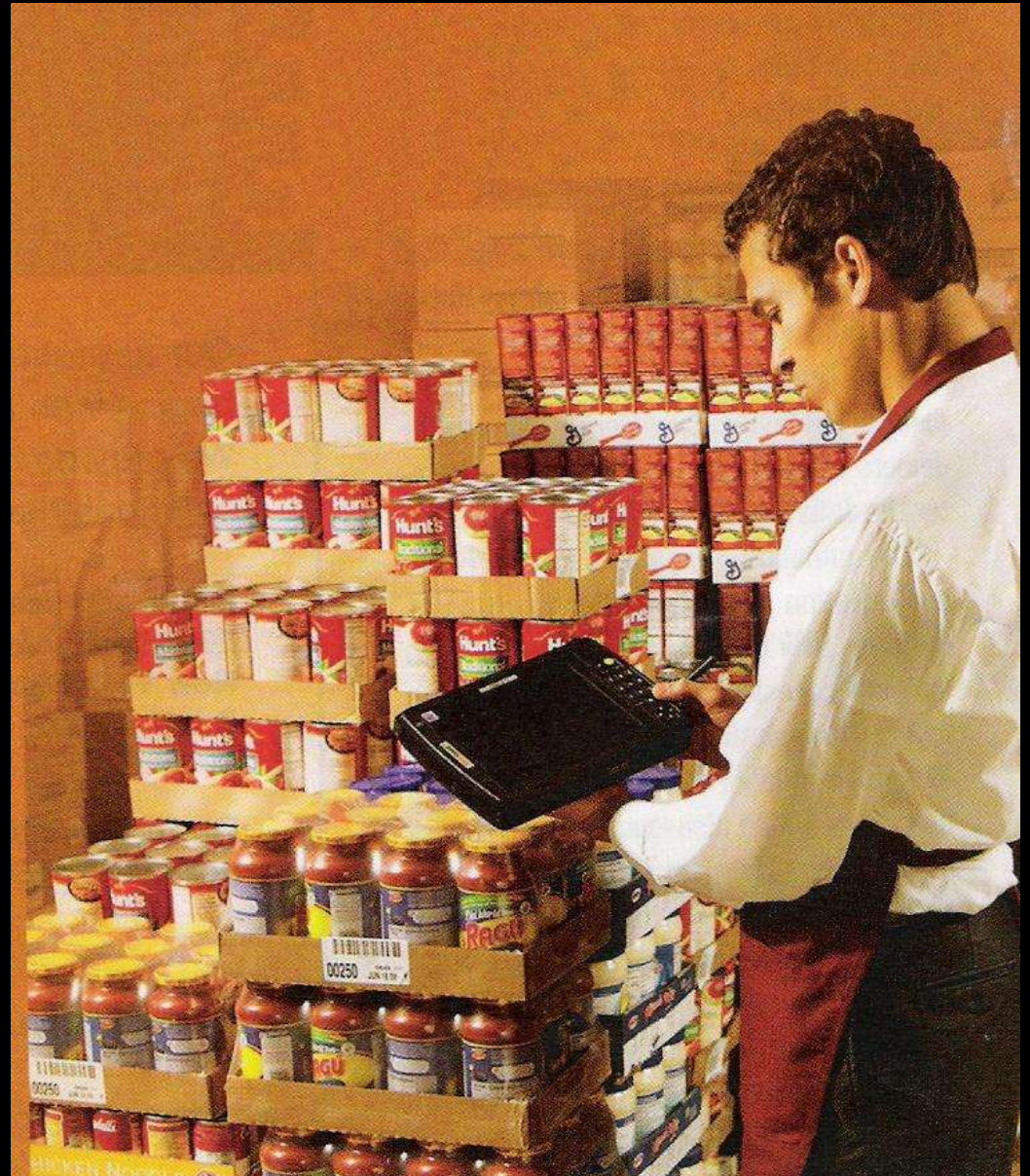
Paperless Fab



Law Enforcement



Hands Full Mobility  
it's Obsolete





***Golden-i* . . . a full mobile PC  
. . . multiple wireless radios  
Hands-Free Speech recognition . . .**

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**Patents Issued & Pending**



**Golden-i wasn't developed to  
replace anything . . .**

**. . . it was developed to increase:**

**Personal performance,**

**Improve everyone's safety,**

**Improve convenience . . .**

**Leverage systems all around us**



# Golden-i's Objective

## Spontaneous Access

~ information & communications

## Leverage Mature & Adv. Technologies

~ Handhelds, PCs, Servers, The Cloud  
Test, Repair & Manufacturing

## Real-time Situational Awareness

~ on-demand Video, GPS, Compass  
6 – Axis real-time head tracking

# Hands-Free ~ Speech & Gesture



**Great Speech . . .**

**. . . Sum of the parts**



**PC Performance – TI OMAP**

**OS ~ MS WinCE6**

**Wireless ~ Bluetooth, WiFi, Cellular**

**Speech Recognition & Translation Engines**

**Nuance VoCon 3200 + Text to Speech**

**Kopin Xeno Linguistic Mutating Algorithm**

**Nuance Dragon 10**

**Multi-Phase Active Noise Cancellation ~  $\geq 100\text{dB}$**

**6-Axis Free Space Gesture Tracking**

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## **Approaching ~ 100% Hands-Free Efficiency**

**– Always available**

**Speech engine sizing**

**- Processing performance**

**Mobile speech tasking**

**- Command & Control vs. General Dictation**

**- Multiple real-time languages**

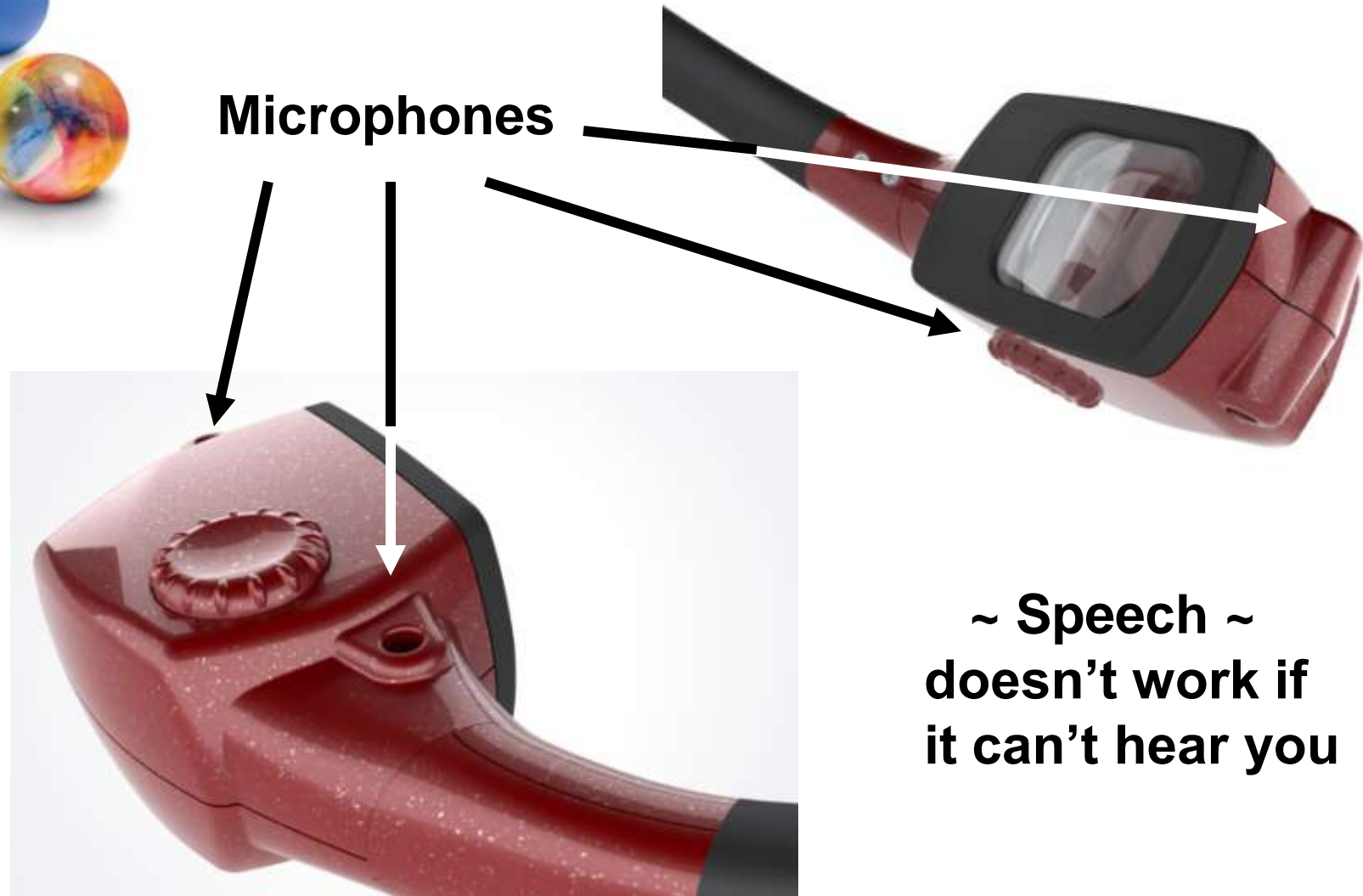
**- Compliments Notebook & Network solutions**

**Text to speech ~ Real-time translation, etc.**



# Multi-Phased Active Noise Cancellation

**Microphones**



**~ Speech ~  
doesn't work if  
it can't hear you**

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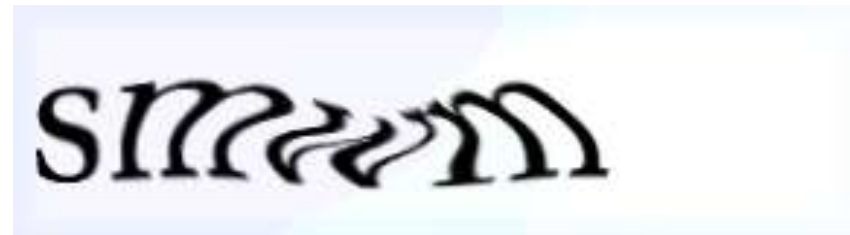
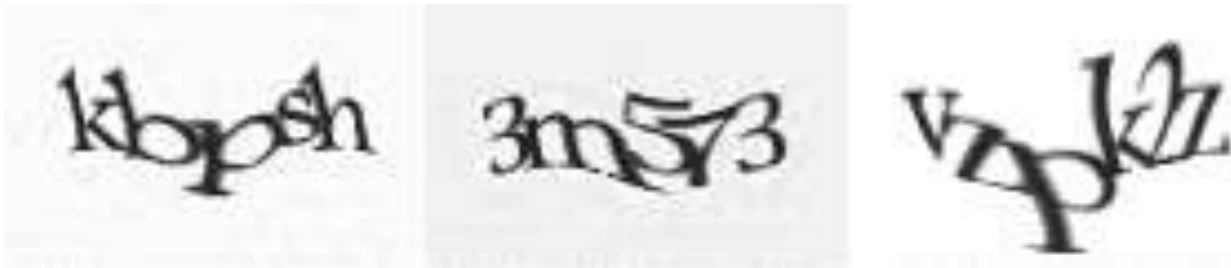
# ***Mutating Algorithm ?***

**Patterns are personal  
- solutions automatic**

**Regional influence**

**2nd - 3rd language**

**Speech ~ smudged barcodes**



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# Clear Peripheral Vision & Hearing



**All Weather  
Operation**

**Industrial  
Certified**

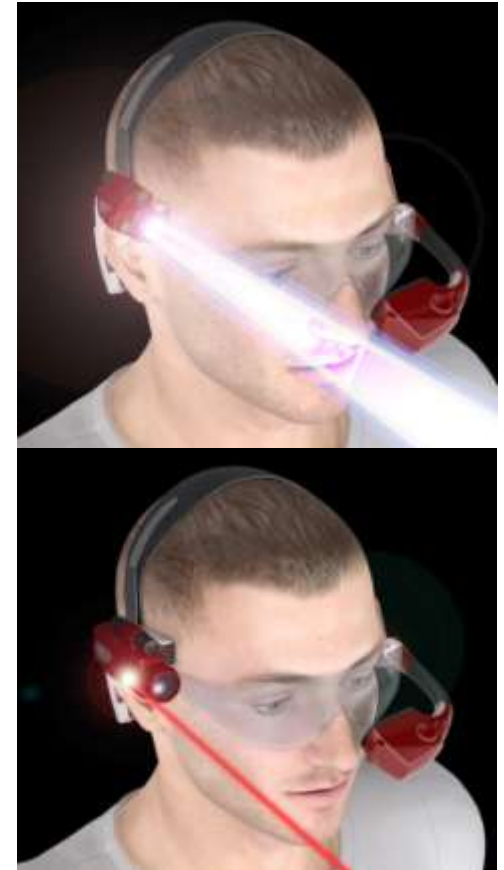
**“Wireless” ~ Command & Control**

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# Optional: Speech Controlled Detachable Wireless Camera



Visible &  
IR imaging



Sharing 720 x 480p 30 fps Streaming Video on-demand

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**When speech works well . . .**



**the most rewarding demo you'll ever experience . . .**

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**When Speech works well . . .**



**. . . everyone wants to use it**

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## When speech works well . . .



• • • everyone smiles

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**Speech enables smaller & smaller solutions . . .**

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**Questions . . .**

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# ***Spontaneous Hands-Free Access***



**. . . enhances performance and safety**

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