Google GLASS

Presented By:
A.Rajamanikam
B.E(CSE)
Final Year

CONTENTS

- Objective
- Introduction
- Technologies Used
- Technical Specifications

OBJECTIVE

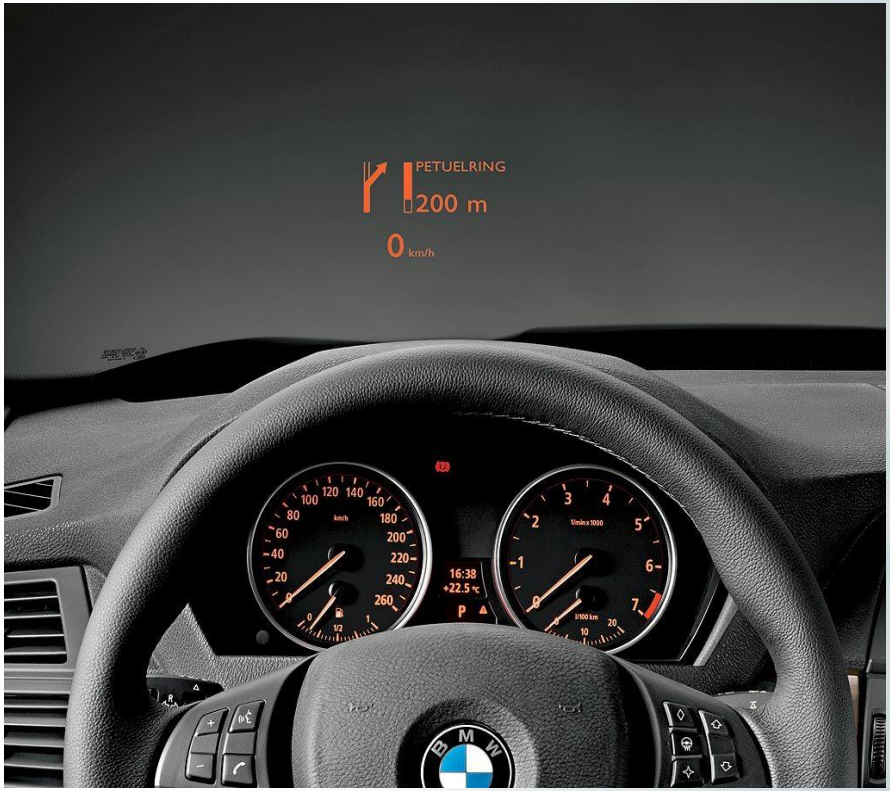
- Implementing the idea of wearable computing with the help of Augmented Display and Virtual Reality

INTRODUCTION

* Google Glass - wearable computer with an OHMD
* Developed by R&D Dept of Google (Google X)
* To reduce delay between intention and action
* Camera, display, touchpad, battery and microphone built into spectacle frame

Google Glass vs Other HMDs & HUDs

- Privacy for the user
- Compact and very easy to use
- Google support
- Design that suits into any frame
- Voice controlled



TECHNOLOGIES USED

Virtual Reality

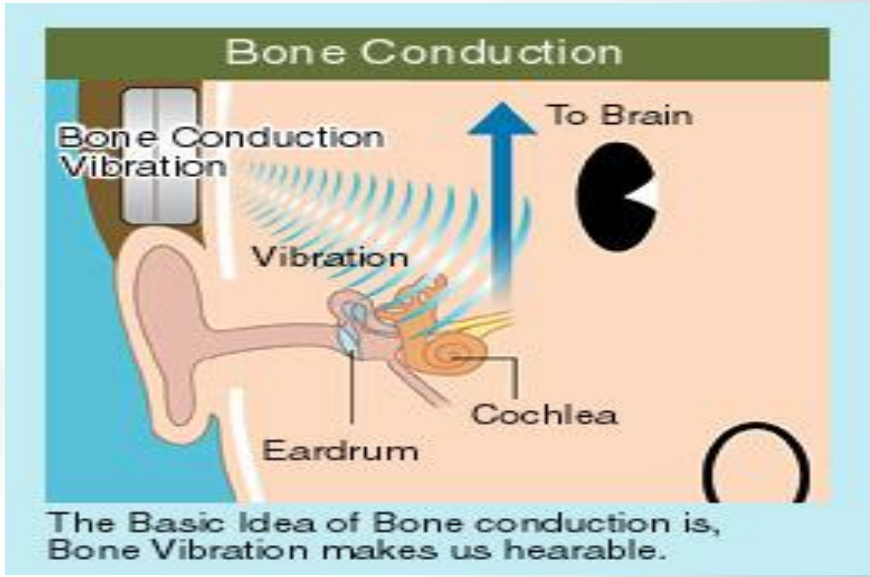
- computer-simulated environment that can simulate physical presence
- Displayed through computer screen or through special stereoscopic displays
- Speakers, headphones, force feedback also used
- Gaming, Simulations for pilot training

Augmented Display

- view of a real-world environment supplemented by computer generated sensory input
- sports scores on TV ,Nokia City Lens

Bone conduction

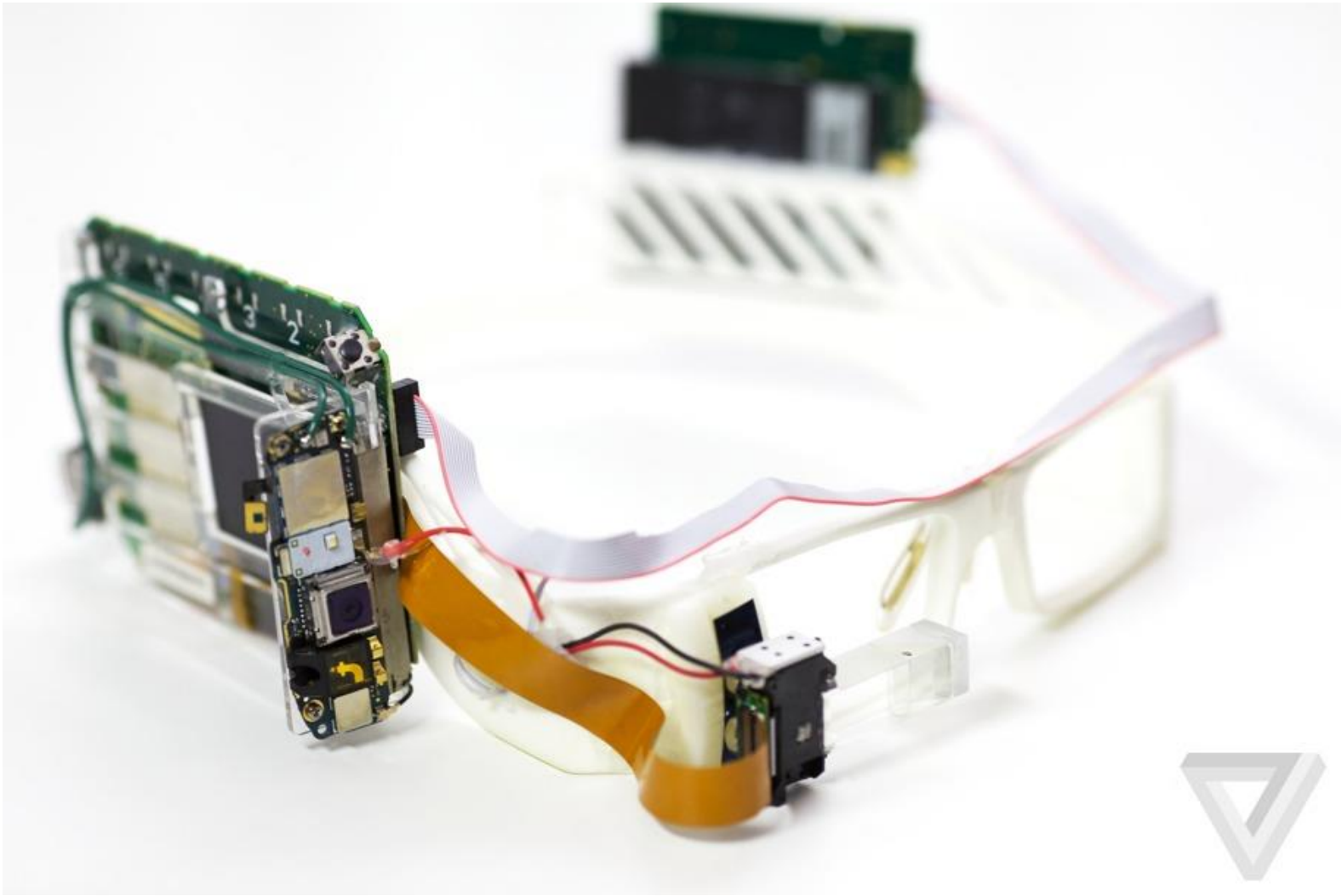
- conduction of sound through the bones of the skull
- high-pitched sounds makes segment of skull to vibrate individually
- sensory cells percives them



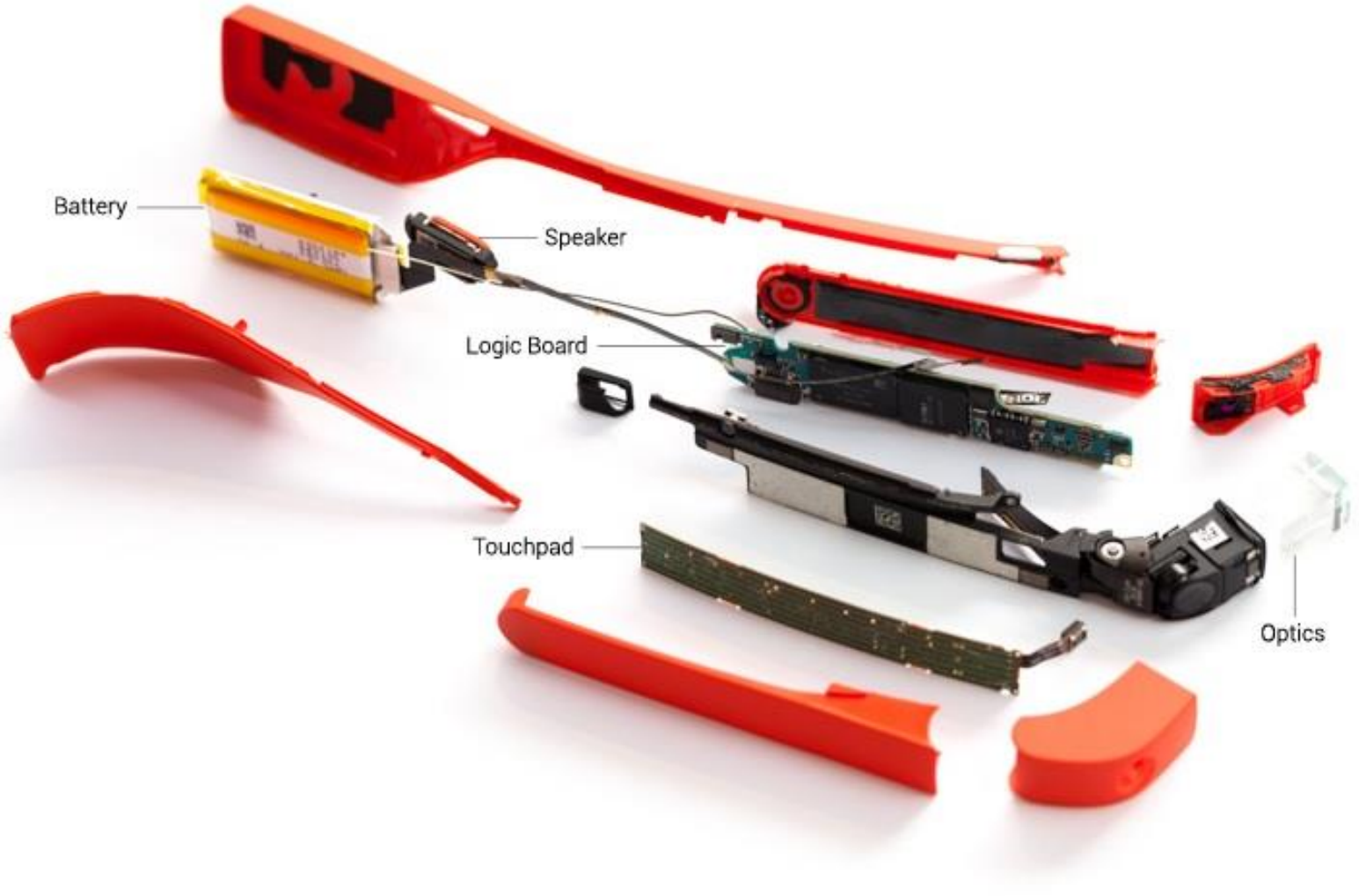
TECHENICAL SPECS

Feature	Specification
Operating system	Android 4.0.4(Ice cream Sandwich)
Power	570 mAh Lithium Polymer battery
CPU	OMAP 4430 SoC, 1.2Ghz dual-core processor
Storage	16 GB Flash
Memory	1GB RAM
Display	Prism projector, 640×360 pixels
Sound	Bone conduction transducer
Input	Voice command through microphone, accelerometer, gyroscope, magnetometer, ambient light sensor, proximity sensor
Controller input	Touchpad, My Glass phone app
Camera	Photos - 5 MP, videos - 720p
Connectivity	Wi-Fi 802.11b/g,Bluetooth, micro USB

Development phase



Google Glass Tear Down



Operating System

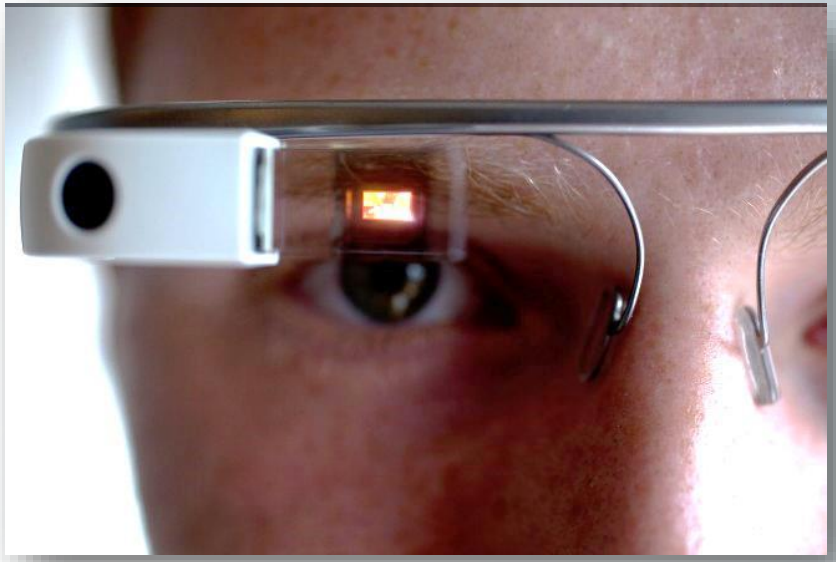
- Android 4.0 Ice Cream Sandwich
- Free Mobile OS
- Used in tablets and mobile platforms

CPU

- Powered by OMAP4430
  - OMAP (Open Multimedia Applications Platform)
  - 1.2Ghz dual core processor
  - series of image/video processors
  - developed by Texas Instruments
- 16GB of SanDisk flash
- Elpida mobile DRAM chip, RF devices, GPS and Bluetooth/WiFi module

- **Display**

- Prism used to display the GUI
- Has a resolution of 640x360
- equivalent of a 25 in. screen from 8 ft. away



- **Camera**

- 5 MP Front camera
- 720p HD video recoding
- Used for hangouts

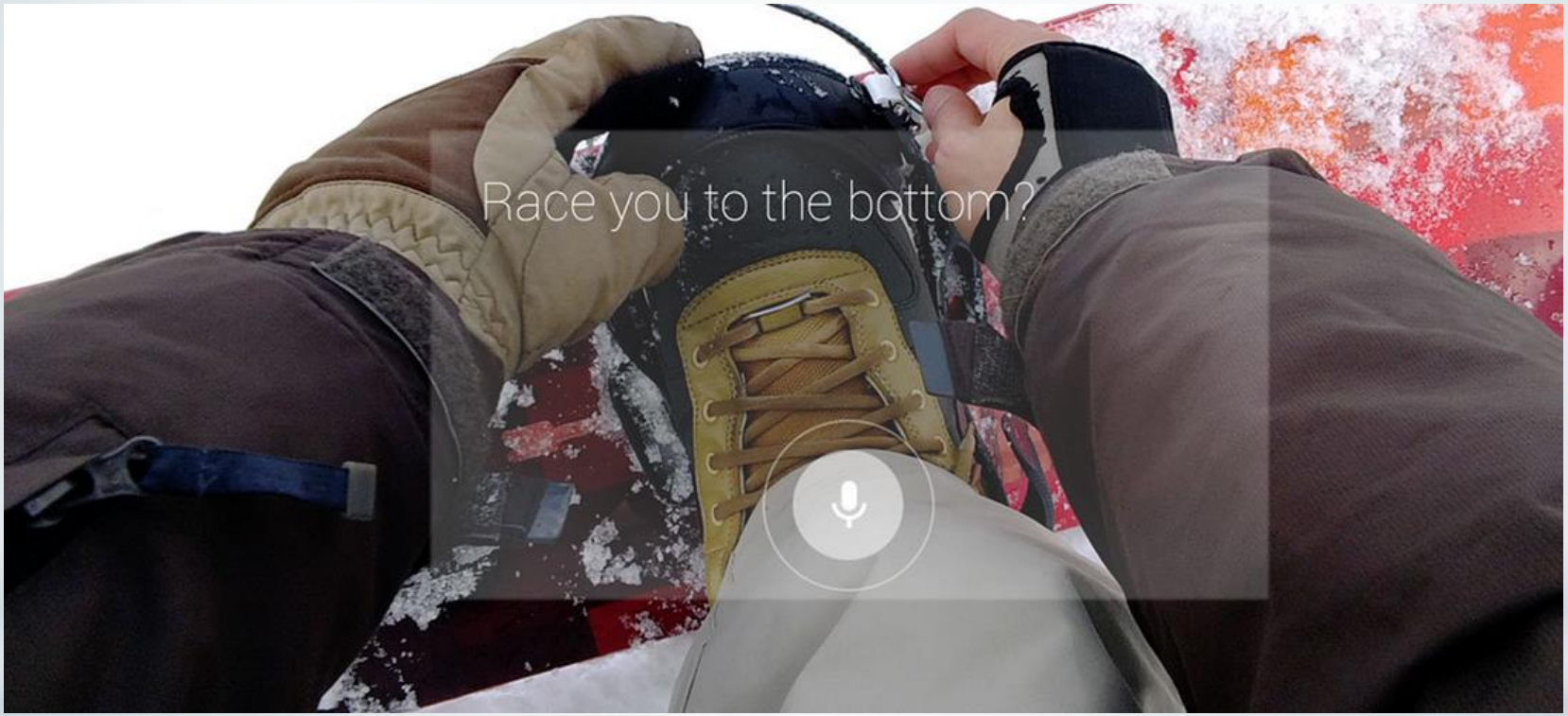
❑ WHY GOOGLE GLASS

- ✓ Say “take a picture” to take a picture

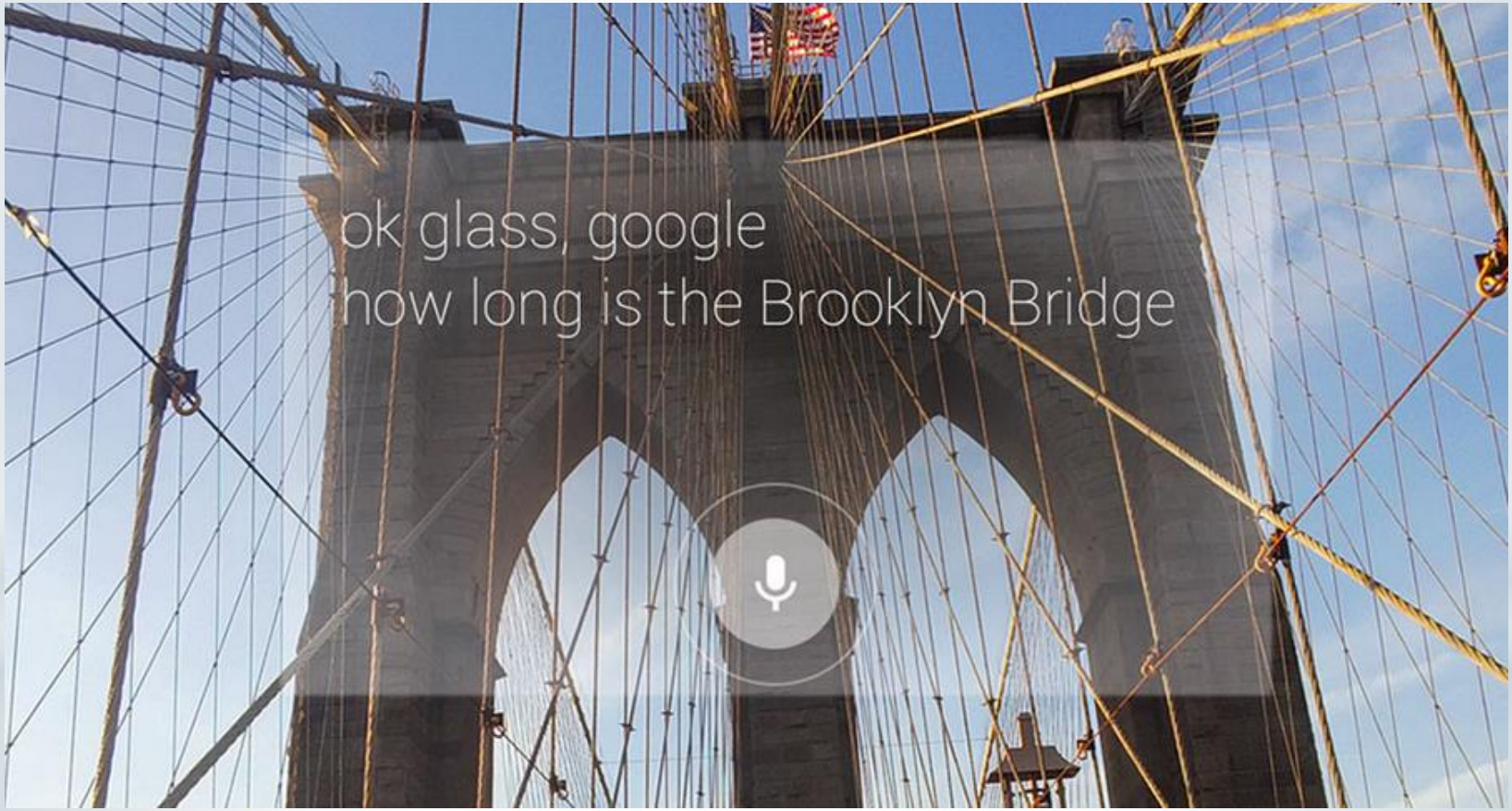
- ✓ Share what you see. Live

- ✓ Directions right in front of you

- ✓ Speak to send a message



- ✓ Ask whatever’s on your mind.



- ✓ Translate your voice

DISADVANTAGES

- Can take pictures without permission
- Can be a distraction to the line of sight
- It requires a internet connection

CONCLUSION

- Google Glass makes life simple
- Takes communication to next level

THANK YOU