AR brille – utvidet virkelighet

FRA FORSTØRRENDE VIDEO SYSTEM

TIL

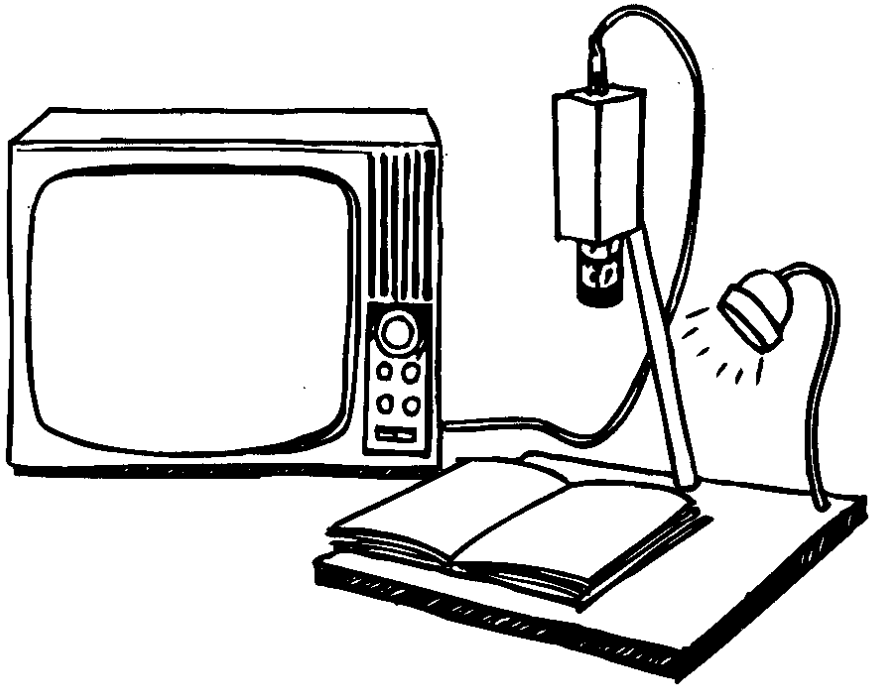
INTELLIGENTE BRILLER

Samuel Genensky was best known for developing the closed-circuit television (CCTV) that became the prototype for the video magnifiers sold around the world today that enable people with severe visual impairments to read books, magazines and other conventionally printed materials.

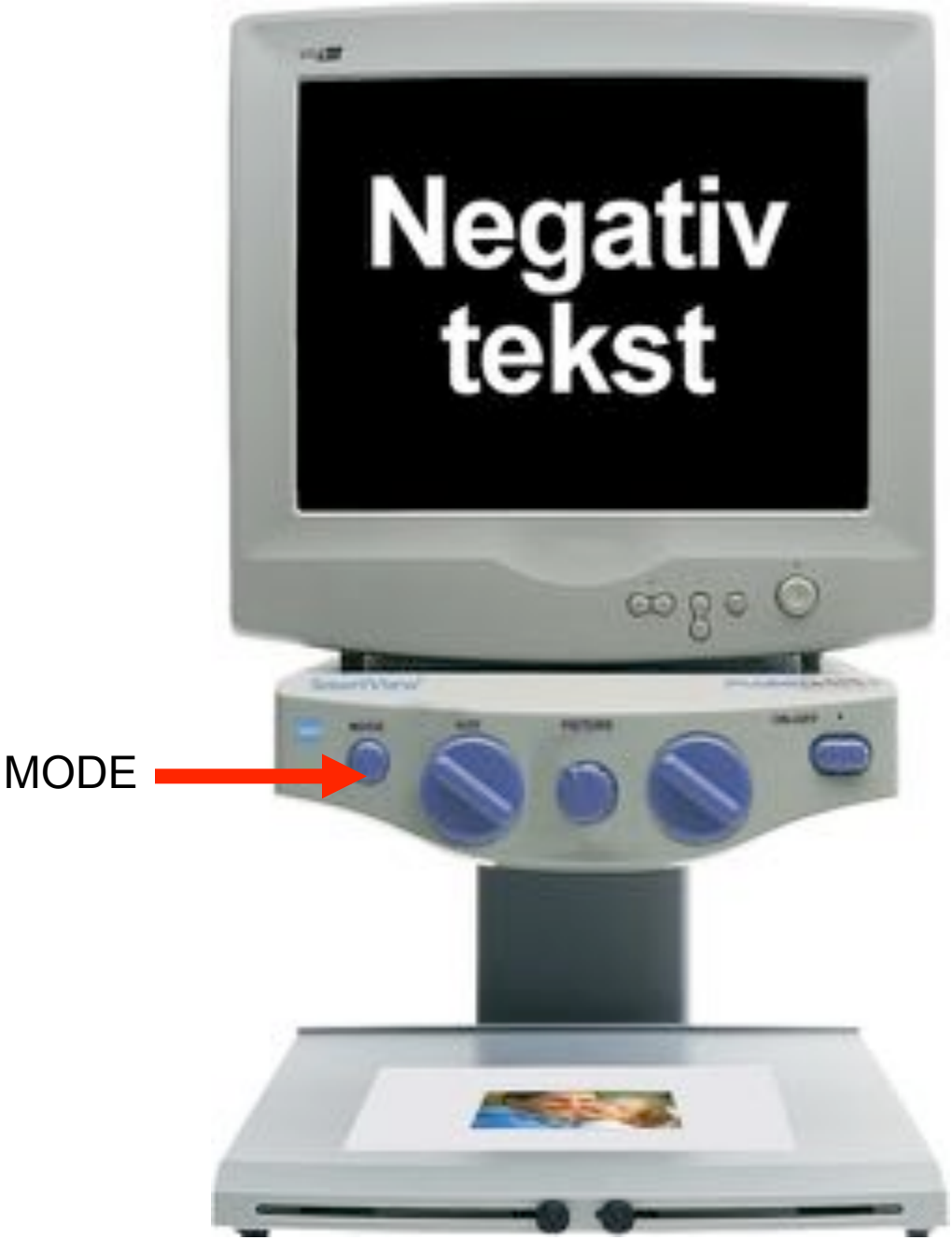
It took me some time to fully realize how important CCTV systems were going to be to partially sighted people of all ages.

Once I perceived their value and realized how much they could and would do to improve the education of partially sighted children, to open job opportunities to partially sighted people of working age, and to increase the independence and pleasure of older partially sighted people, there was no stopping me.

Samuel M. Genensky, Ph.D.
Santa Monica, California
August, l997

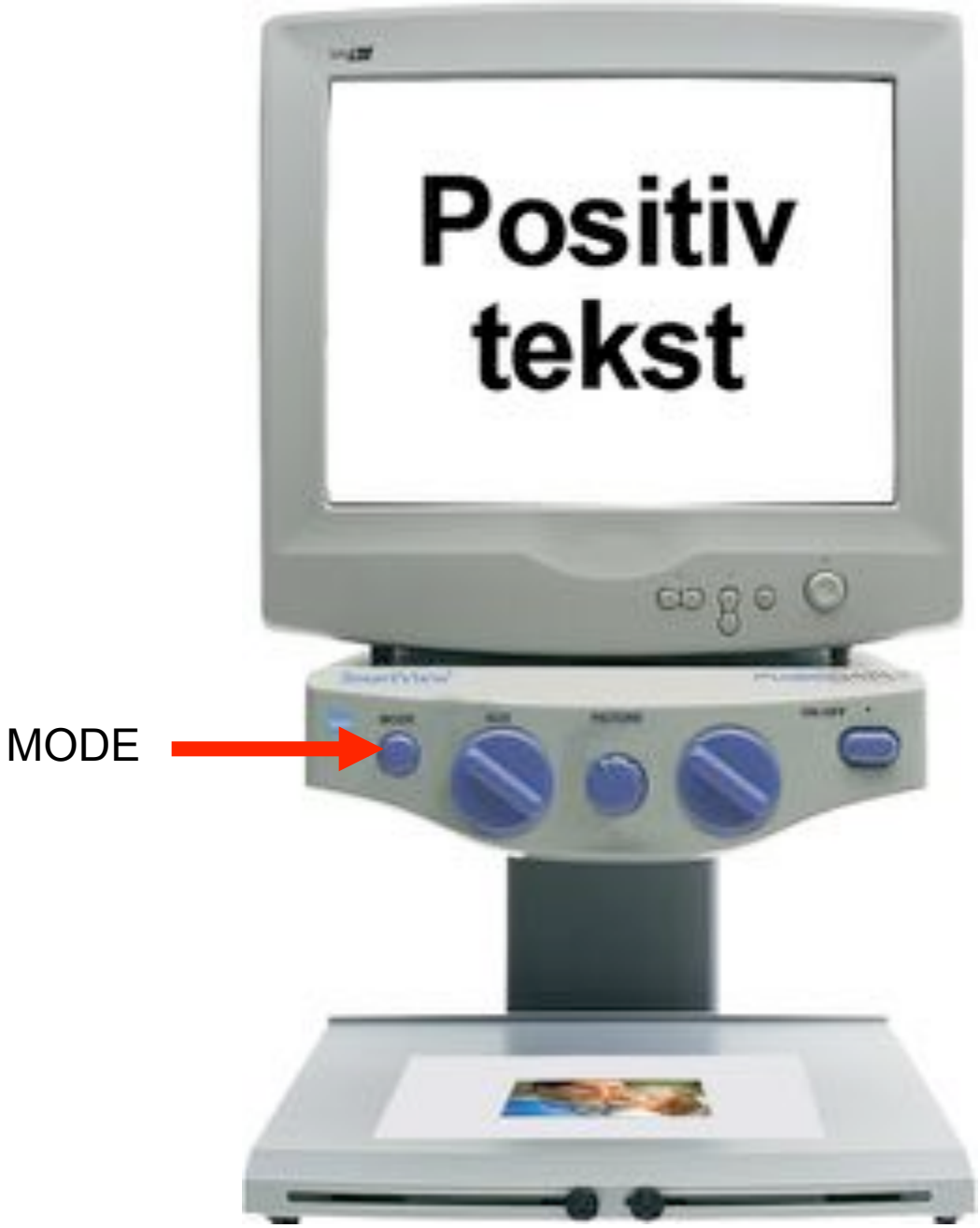


1960 tallet


Negativ
tekst
MODE


Artifisielle
farger
PICTURE


Artifisielle farger
PICTURE


Positiv
tekst
MODE

1980 tallet

1990 tallet

2000 tallet

2010 tallet

VIDEOLUPER
Elektroniske luper

NETTBRETT

1. Fokus
2. Forstørring
3. Lys / kontrast

NETTBRETT

- TILGANG TIL NETT:
- Google
- Nyheter
- Radio
- TV
- Lydbøker
- Apper

Variabel forstørring

- Relativ avstand
- Projeksjon

Fokus

Smart telefoner og nettbrett

Smart telefoner

iPhone and iPad

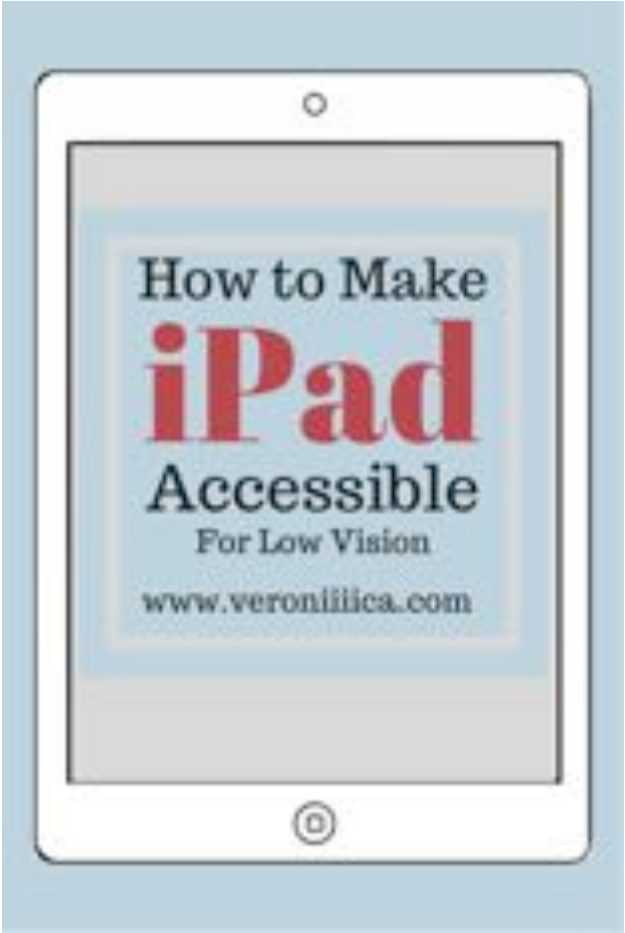
build in screen magnifier:

ZOOM (with different modes)

Smart telefoner og nettbrett som videolupe

ADAPTATION APPS

TILBEHØR

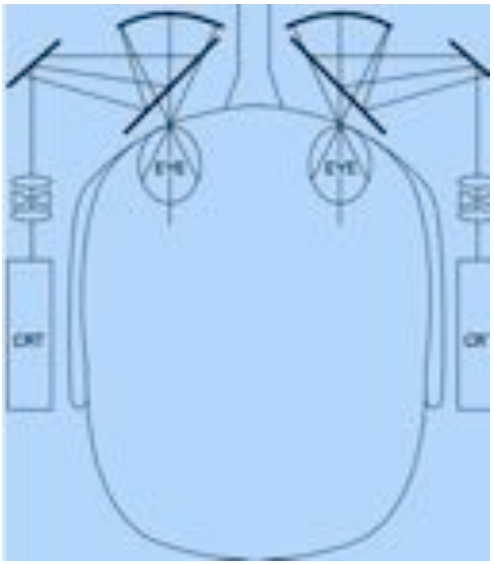


Mix av kamera og nettbrett

Mix av kamera og nettbrett

FOR BLINDE

Photograph of the LVIS. The two monochrome charge coupled device cameras mounted in front of the eyes provide an unmagnified binocular field of view for orientation and the third centre mounted zoom camera provides variable magnification.



Schematic diagram of the LVIS. A magnified intermediate image of each cathode ray tube (CRT) screen is formed by an aspheric triplet lens system.

ROBERT HARPER et al. Br J Ophthalmol 1999;83:495-500

Hodebåret system

eSight (videobrille)

Hodebåret system

AR brille?

Syn på nær / lesing

Syn på avstand / TV

Hodebåret system

SYNSFELT

Hodebåret system

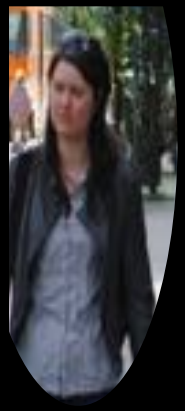
Elena Peláez Temprano

Rafael Camara Mena

Retiplus®

Imagen tomada de: https://www.epson.co


EMPORIO



Retiplus®

AR brille


EMPORIO


EMPORIO


STØRRELSE
PLASSERING
SYNSFELT
UTFORMING


EMPORIO

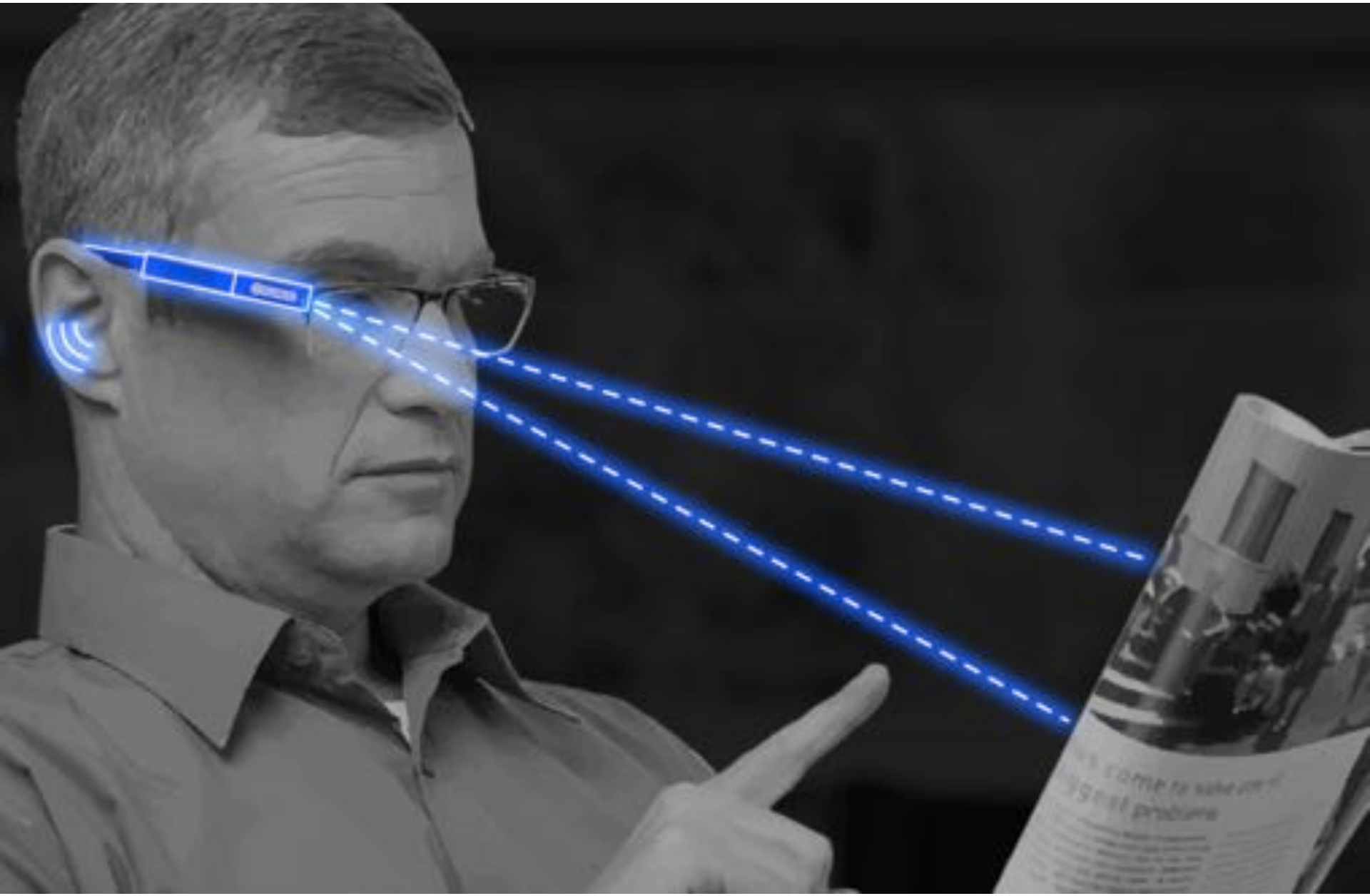

EMPORIO

Phase 1: Prototype Retiplus

- ✓ Augmented reality smartglass that the patient carries
- ✓ Tablet using the ophthalmological specialist (Wireless connected to both the smartglass and the repository in the cloud)
- ✓ Frame for selectivefilters/lenses (inside) and sunfilters (outside) suitable for each patient

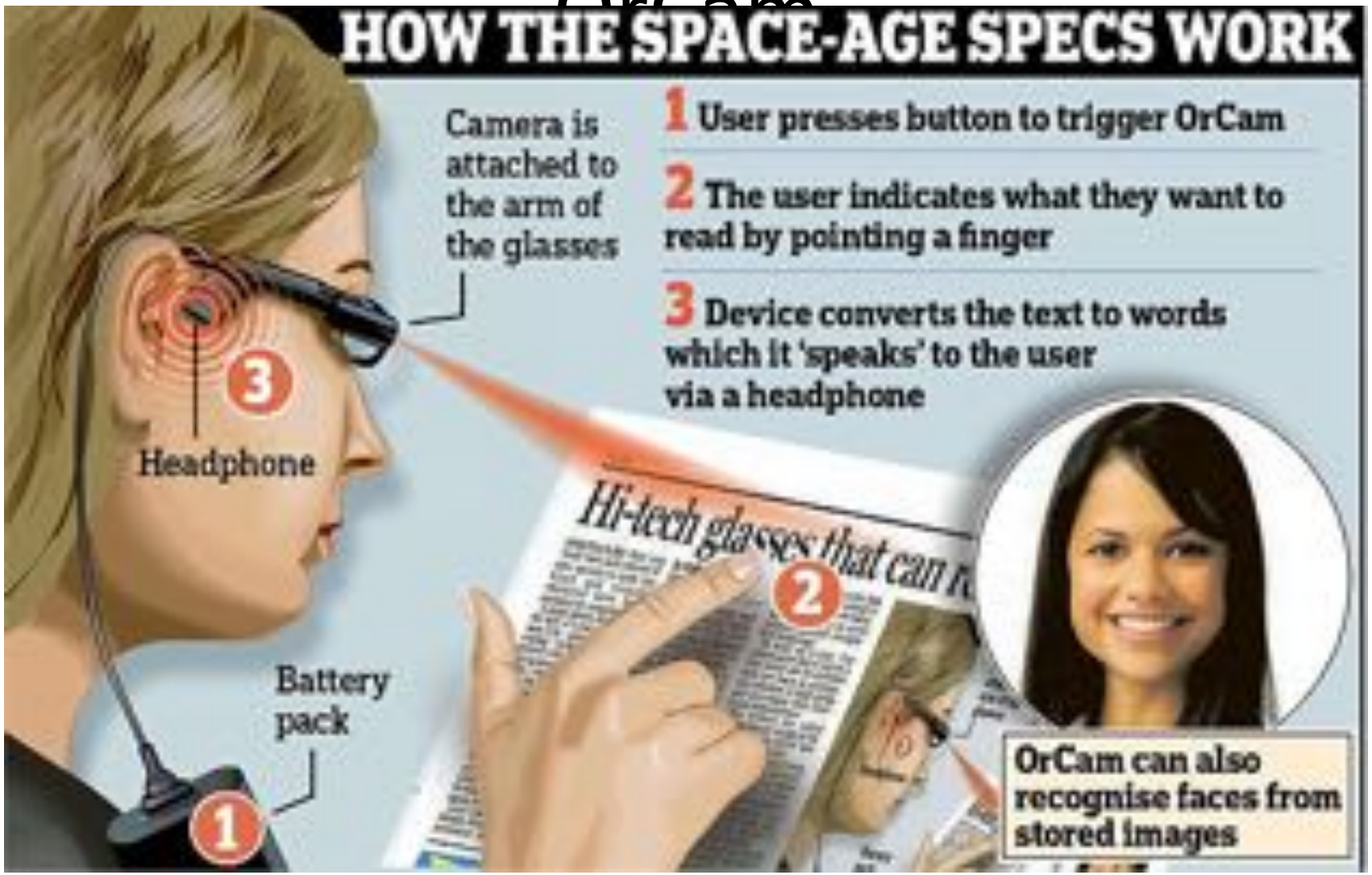
Retiplus


OrCam



OrCam

OrCam




ONE

Headworn Systems

Google Glass Explorer

Google assistent, Amazon Alexa og Siri

Det har etter hvert kommet flere digitale assistenter på markedet. Ved å gi dem kommandoer kan du spille musikk, sjekke værmeldingen og huske avtaler.

Digitale assistenter




B2B Integration

Apple Siri	Google Assistant	Amazon Alexa	Neo
» Cloud-only	» Cloud-only	» Cloud-only	» On-Premises & SaaS
» No B2B-applications	» Few B2B-applications	» Some B2B-applications	» Multiple B2B-applications
» Closed-system	» Open system	» Open system	» Open system
» Via Mac, iPhone & iPad	» Via Smartphone & Smart-Speaker	» Via Speaker & Alexa-App	» Via Smartphone, Tablet & Computer
			» Made in Germany

NORTH FOCALS

VUZIC BLADE

SOLOS

EVERYSIGHT RAPTOR

EPSON MOVERIO

DREAMGLASS

SNAP SPECTACLES

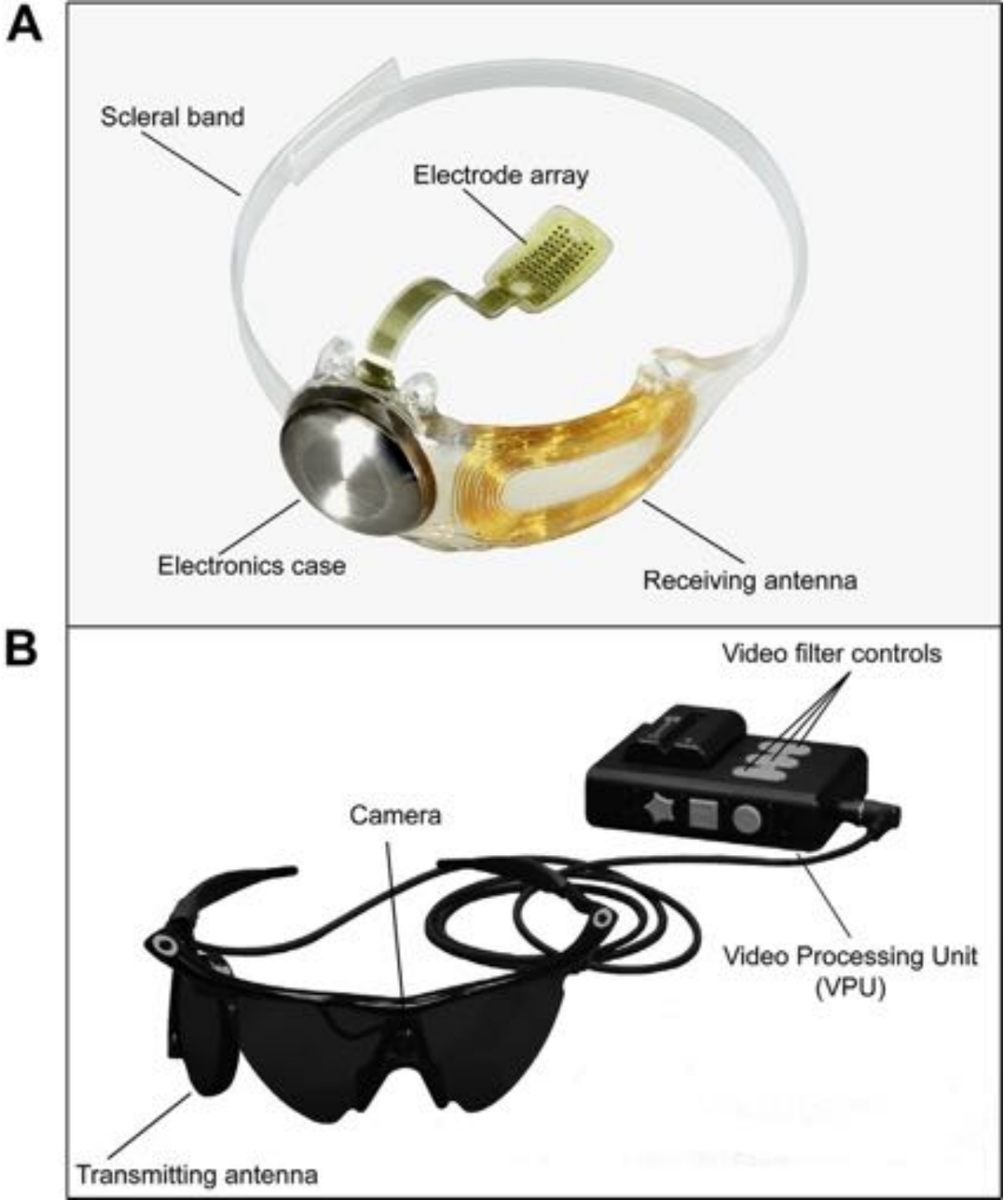
AMAZON ECHO FRAMES

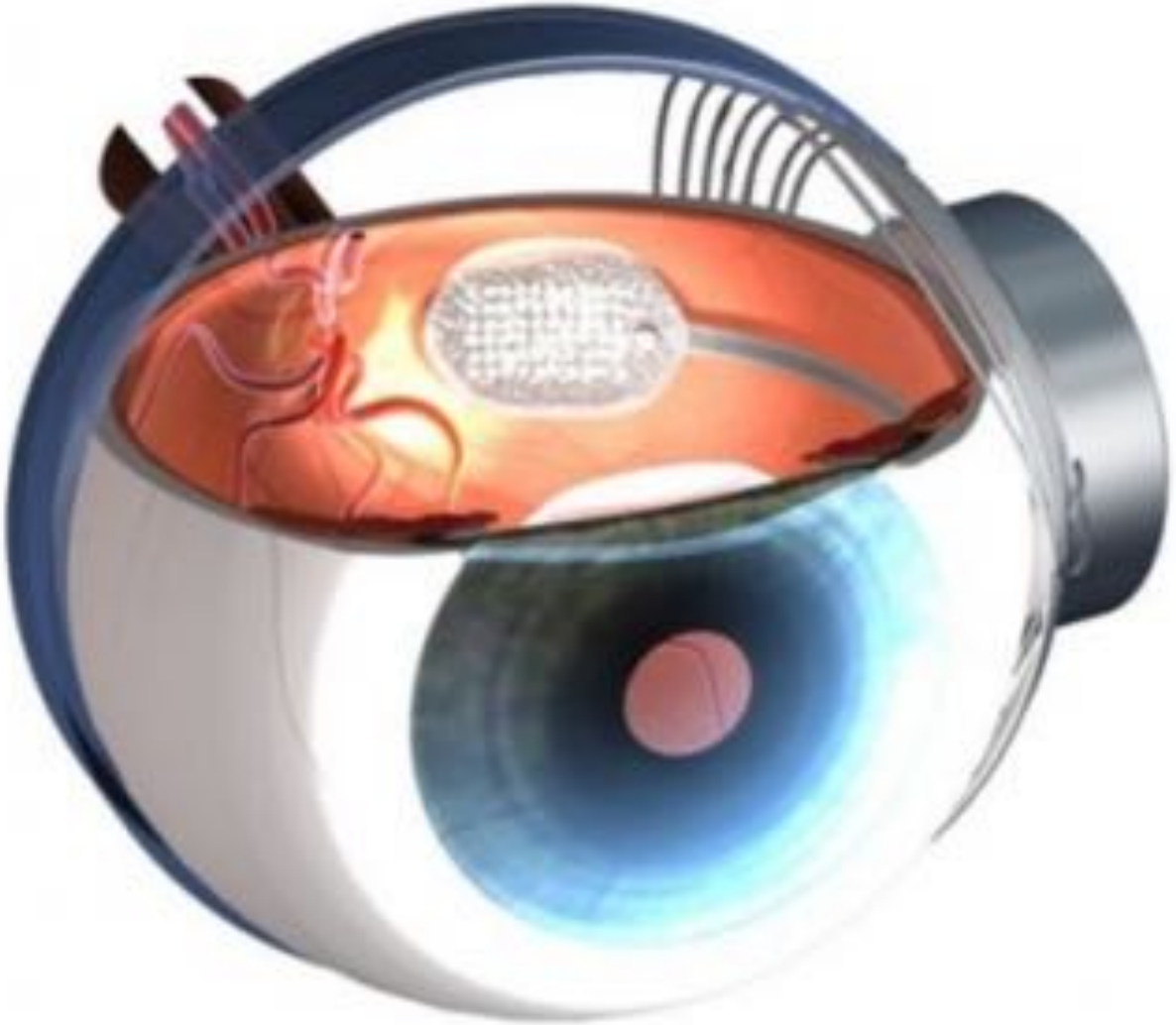
LOWDOWN FOCUS

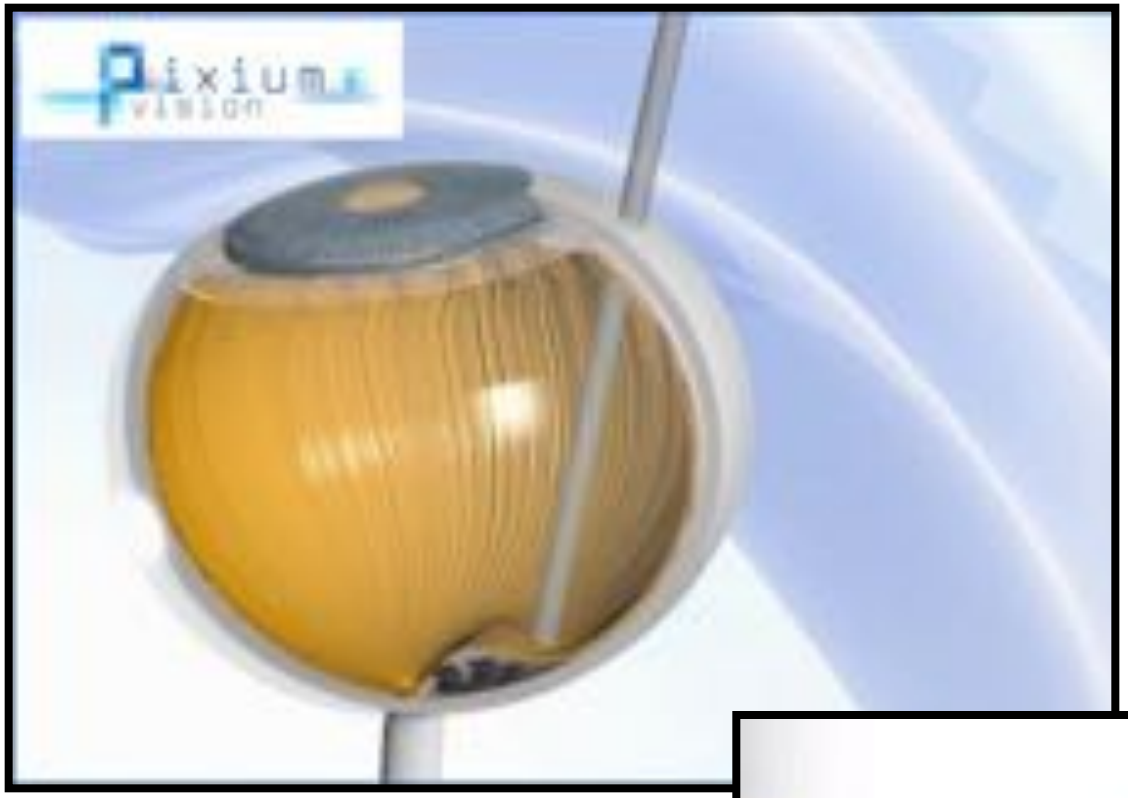
VUE

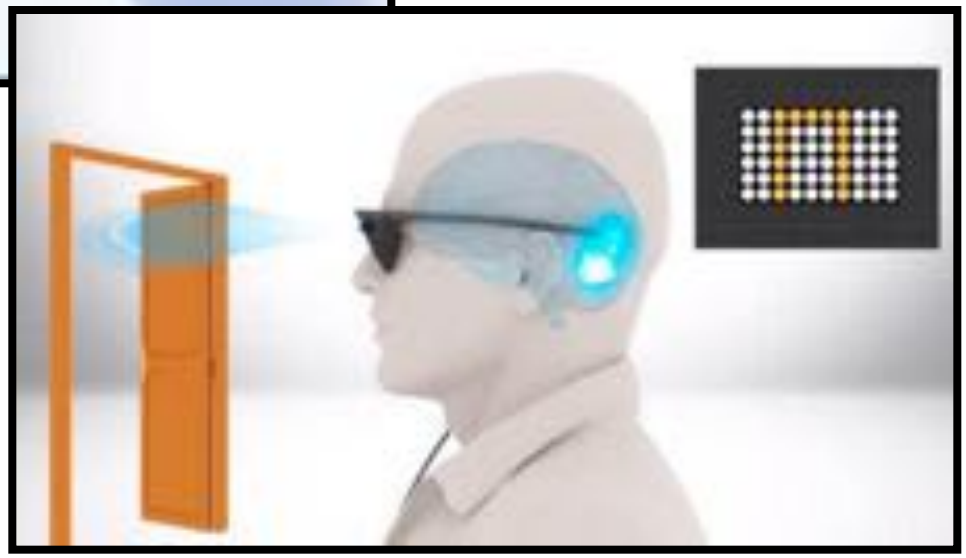
VSP´s LEVEL

The Argus® II Retinal Prosthesis System (“Argus II”) is also known as the bionic eye or the retinal implant. It is intended to provide electrical stimulation of the retina to induce visual perception in blind individuals with severe to profound Retinitis Pigmentosa.


A
Scleral band
Electrode array
Electronics case
Receiving antenna
B
Video filter controls
Camera
Video Processing Unit
(VPU)
Transmitting antenna




Pixium
vision



eikholt

TAKK FOR OPPMERKSOMHETEN!