



AI-Powered Assistive Wearable Technologies for the Partially Blind



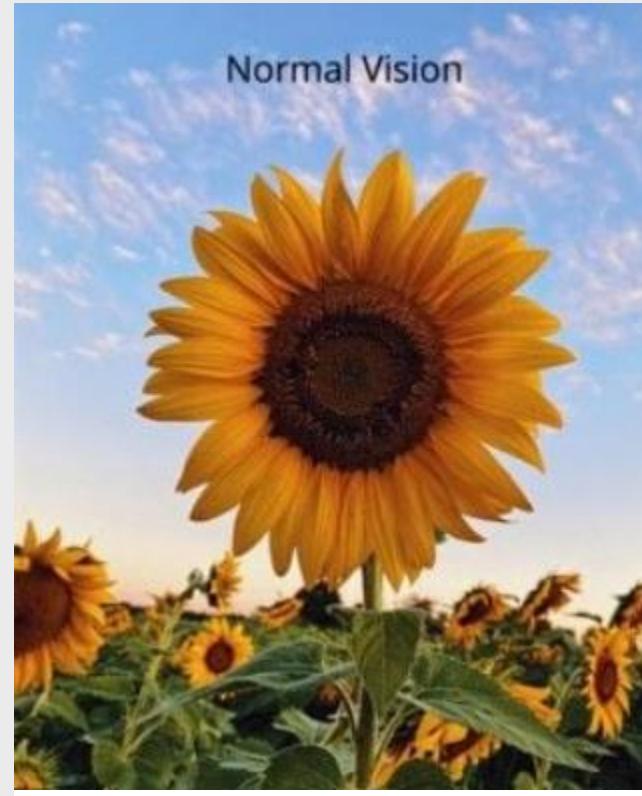
Vyztal x ThirdEye
See what you don't.



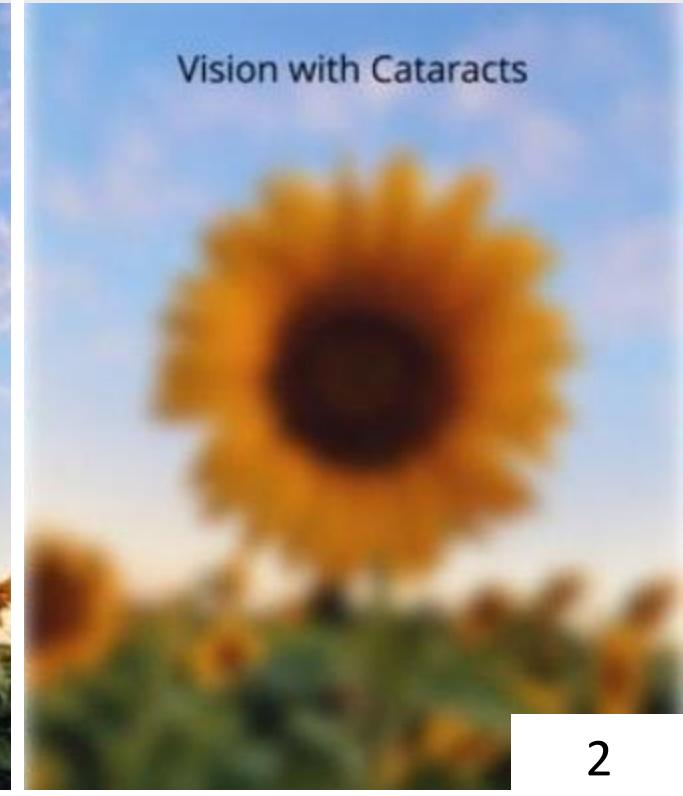
Vyztal x ThirdEye



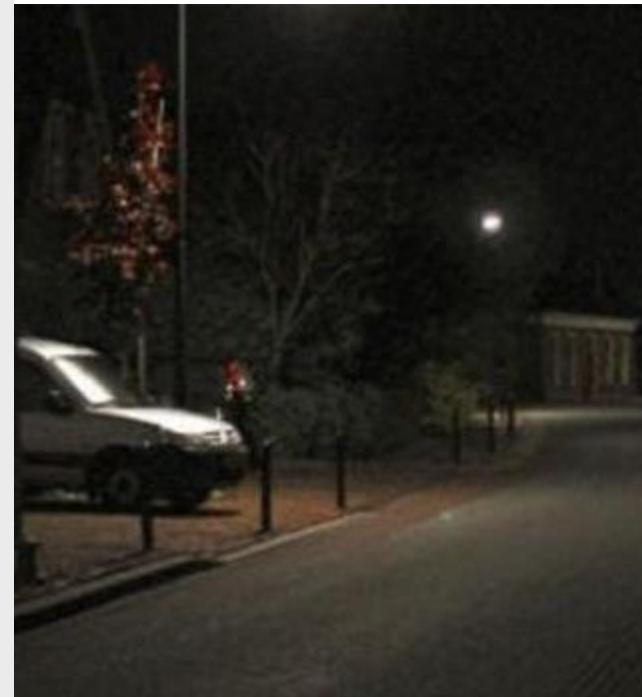
The Problem



Normal Vision



Vision with Cataracts





These often lead to wider psychological and negative indirect impacts on QoL and ability to function/work.



Existing Solutions



OrCam MyEye



NuEyes

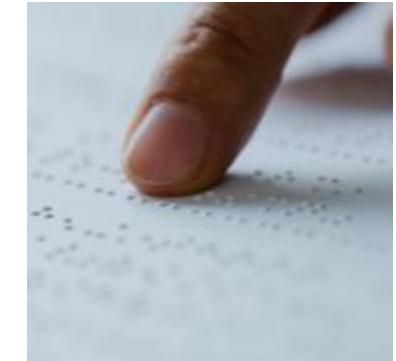


EnVision



eSight 4

Braille



The White Cane



Guide Dog





akrazyho • 2y ago

Top 1% Commenter

The world of devices for the visually impaired and blind is a joke. They all are overpromising. They all are overpriced, and they all under performed severely in the real world. You already owned the best piece of assistive technology and that is your smart phone. A better question would be what apps are best suited for the blind, and visually impaired community. I will let others chime in here, but aside from reading, very basic signs like a men's room. For example, there isn't anything out there that I think most of us would recommend.



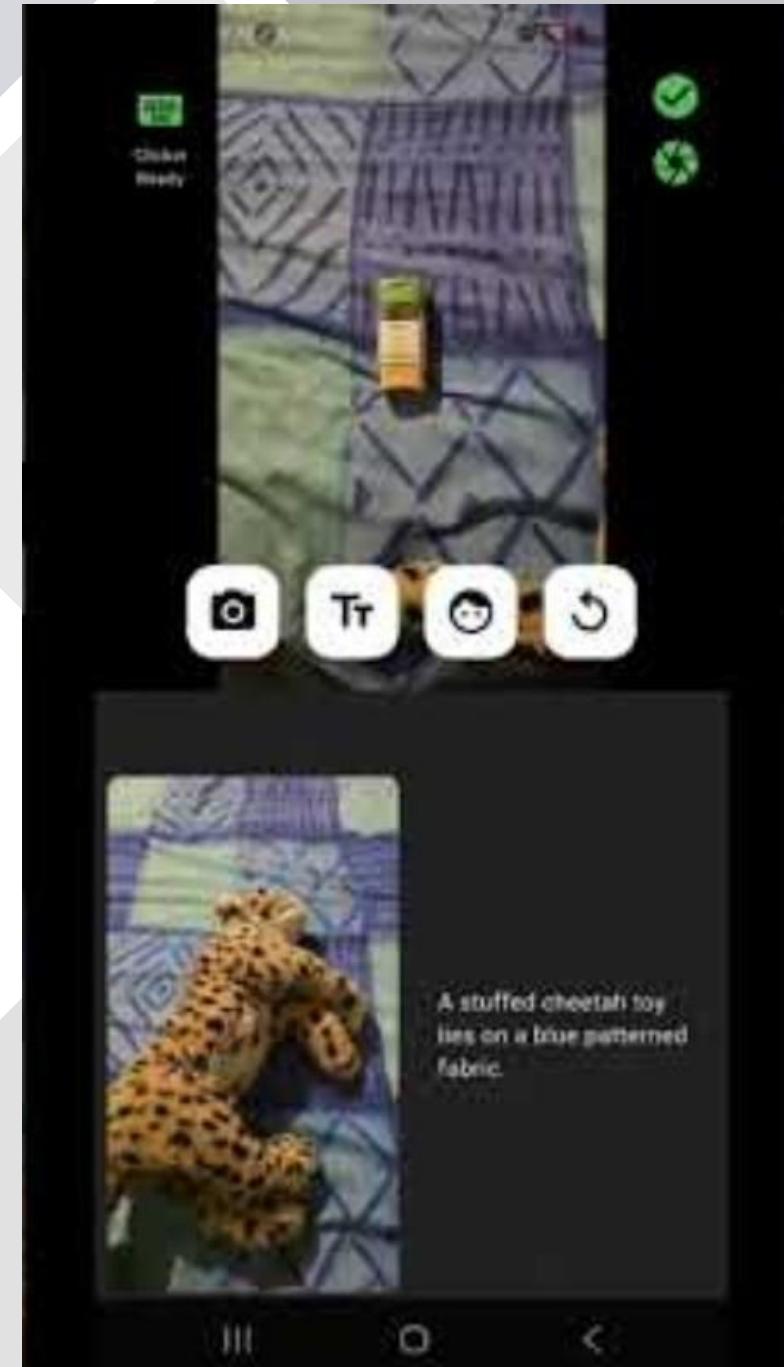
Mobile App

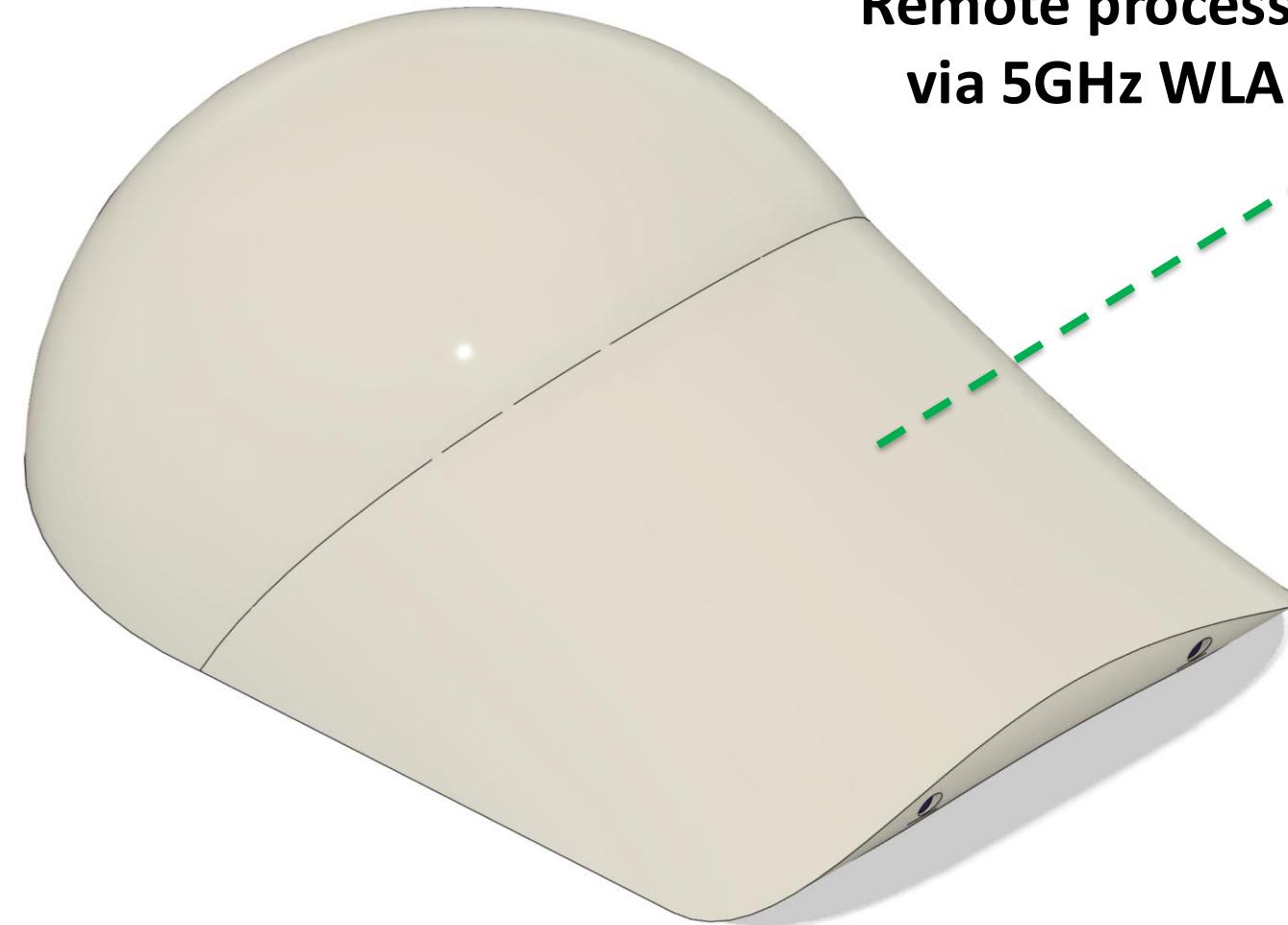
Current Capabilities

- Scene description
- Text read-outs
- Face recognition (local model)

Incoming Capabilities

- Proximity/obstacle detection
- Language translation
- GPS Navigation guidance
- Connected phone calls





**Remote processing
via 5GHz WLAN**





Power

PD trigger and buck converter (accepts 12V USB-C input, draws max 20W). E.g. works with standard laptop charger.
Power lines also shown (powers CM4 and 5W audio)

Audio

5W surface transducer for bone conduction audio, connects to CM4 by BT

All components are housed in a 3D-printed shell

Data wiring

USB wiring to webcam without standard port connection, and sensor extension ribbon to make Pi Cam V3s low profile

Streaming (light processing only)

- CM4 8GB RAM, 5GHz wireless (main onboard processor). Supports dual video encode.
- StereoPi V2 Slim (minimal CM4 HAT: stereoscopic dual cam support, USB data headers)

Cooling

Low-profile CM4 heatsink, modified for custom shape

Cameras and mic

- 2x Raspberry Pi Cam V3 Wide (12MP, 120° FOV, 1080p30, autofocus). For the scene.
- 1x Arducam USB mini webcam (8MP, 75° FOV, 1080P30, directional mic, on-device encoding). For eye tracking.

Find more renders (including different angles) on slide 14.



Scaling and Go-To-Market Strategy

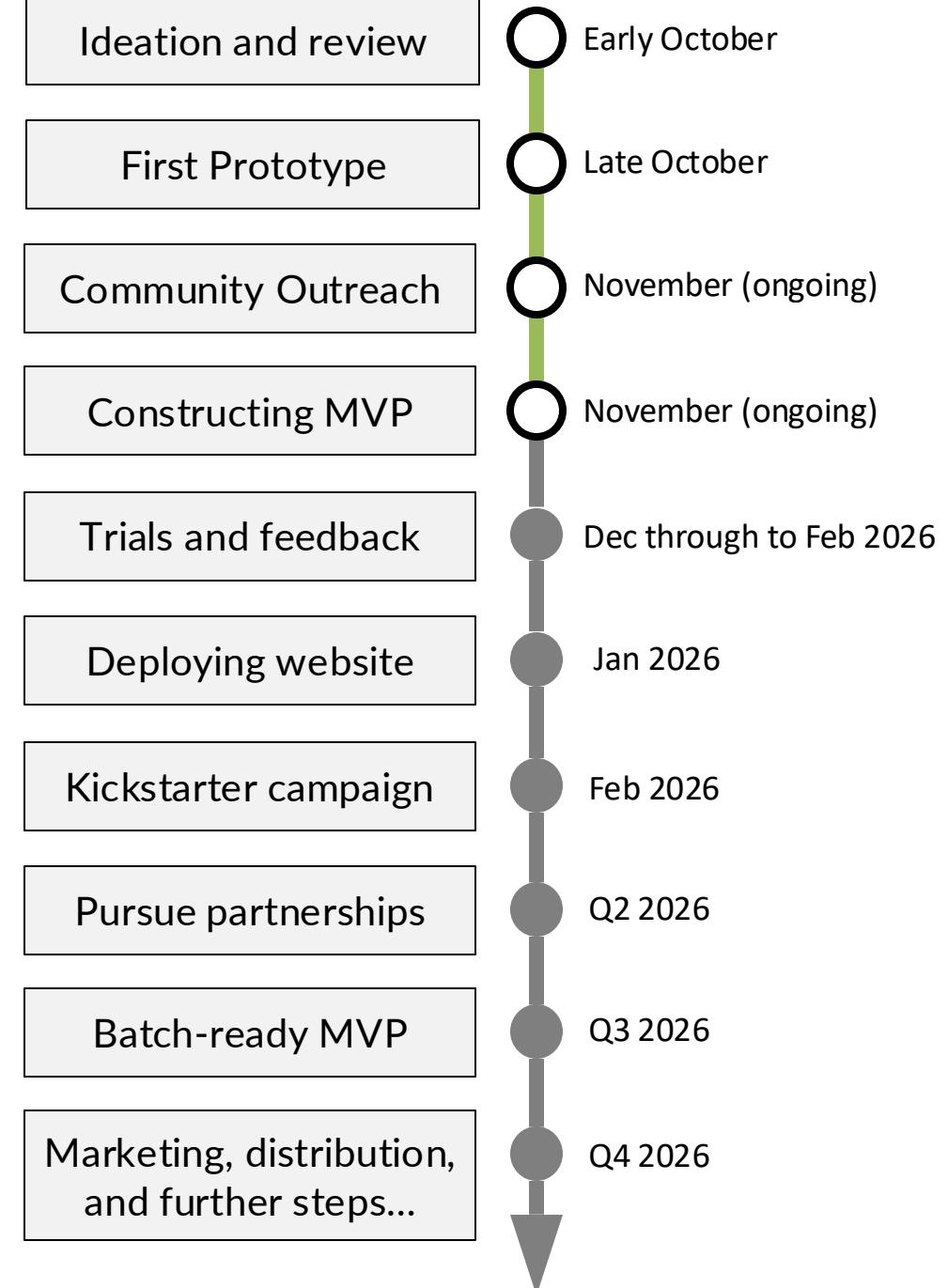
Early Marketing & Awareness

- Post and communicate on forums
- Technology and Accessibility fairs

Target Early Adopters, focusing on individuals who already use assistive devices

Set up an official website to raise awareness and keep interested parties up to date

Build partnerships with charities, NPOs, and accessibility organisations





Business Model

Target Market: predominantly individuals with partial vision impairment. UK in the short term.

EXPECTATIONS

- Around 10% of the 2mn blind people in UK
- Approx £36mn pa from subscriptions once we have accessed this market
- Potentially use some of the cashflow to expand the team, procure better equipment and design, more R+D.
- Donate free hardware and products to people under financial stress.

1. Revenue and Pricing Strategy

Value-based price of ~£500

Upfront cost for device

£15~ subscription for LLM and device management

1. Scalability

Partnerships and Economics of Scale to reduce costs

50% margin to reinvest via RD

3. Customer Retention

Customer support and community engagement

Subscription plans

RD to improve our products

Outreach

r/Blind • 2d ago
PartyBarnacle9210

What do you do for work?

Question

I am in Wisconsin. I currently work at McDonald's. I have been in food service for over 15 years but why I live now doesn't have much for work options and McDonald's has really high labor cost right now. Does anyone have any recommendations for possible remote work with no experience in remote work? I am blind in my left eye and have no peripheral vision in my right eye so I do use computer screens and am knowledgeable in computers. Just not remote

r/Blind • 9d ago
ManyMarch480

No beeping at pedestrian crossings

Question

I live in Glasgow in Scotland and I'm severely visually impaired. I use a cane.

It's all well and good as I live in an urban area, but it's not so good at the time due to the lack of beeping pedestrian crossings.

There are no audio signals in my city and the traffic lights are still red and if I'd crossed I would've been hit. I'm not sure that a lot of the green men are virtually blind as I once mistook the green traffic light for the person who was crossing.

r/Blind • 8d ago
Wooden_Suit5580

Anyone else experiencing Ray Ban Meta regression?

Technology

Hello everyone, Has anybody been experiencing Ray Ban Meta Smartglasses giving the minimal effort when requesting something? Example: My wife and I went to the grocery store yesterday. My wife usually leaves me in an aisle and goes of and finds the items that we are looking for. I spend this time trying to get products in front of me. I have detailed descriptions turned on and I am up to date with what was on the shelf at eye level and I asked the glasses What I was looking at, to be an item on a shelf in a grocery store. - In order to get more information I thought was not wrong! lol Has anyone else been experiencing less than stellar response from the EchoVision smartglasses and I should be rev them in a few weeks. I am starting to use smartglasses and Meta as a company! Looking forward to hearing others experience



Usher Syndrome Coalition

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Community highlights

VisuallyImpairedStudy

r/VisuallyImpairedStudy

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Rising ▾

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Visually Impaired

u/cmMiWkSkyDPs72 HQ/viewfor... Your responses will help us de the development of more ask your caregiver to do so. Your

VisualyImpairedStudy A community for blind or low vision students - or those who want to better understand the experience of these students - to ask questions, share experiences, express thoughts and opinions, and share advice on this subject. Note: this community is primarily targeted towards university/college and high school students. This is because reddit isn't typically used by younger students. Though don't be discouraged to seek advice on behalf of visually impaired student in an earlier stage of education.

Created Aug 8, 2024

Restricted

Search in r/VisuallyImpairedStudy

r/blindgamers

r/blindgamers

Best ▾

u/AdComfortable519 • 3 days ago

thinking about trying some audiogames, what do you all recommend?

Hey all, I've been getting curious about audiogames lately and wanted to try a few. I've messaged with some accessible games before but not a full audio-first game, for folks who play them regularly, what kind of stuff do you personally enjoy? not trying to do a survey or anything like that, just trying to figure out what kinds of audiogames people here actually have fun with so I know what direction to look in. any favorites or things you wish more audiogames did?

10 14 Share

u/TriputraSasha • 4 days ago

Racing/driving games

Any racing or driving games that have realistic physics, handling, and car tuning but are accessible for low vision. Can see off with high contrast visuals and large text. Can't see small objects on screen or low contrast environments. We have a steering wheel with haptics/vibration and H-pattern shifter with 3 pedals. The games we have are Forza Horizon 5, Dirt Rally 2.0, and Gran Turismo 7 but we are open to trying more. We mostly use PS5 but also have switch and PC. I'm really enjoying the realistic-feeling driving and engine sounds in Dirt Rally 2.0, but I need someone with better vision to help me stay on the track. Can mostly play GT7 alone because the

3 1 Share

u/Jovemymoodle • 5 days ago

Nintendo Switch 2 Game Suggestions?

I am blind, but have two young sighted children who are getting a new Nintendo Switch 2 each for Christmas. I

3 in New

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3 ▾

Community highlights

JayBull • 1 mo. ago

invites For You! Exclusively First for VIPGamer Community

Ever wanted to design your own trading cards and sets, use unique custom designs and lore to our own content, streams, or tabletop RPG sessions, or just love collectible cards and want a dedicated to share your concepts, trade/auction creations with other creators, or just like/comment/share while

find it interesting. For to get your alpha code.

Struggling

4 8 Share

u/powerfulech0 • 23 days ago

r/Blind

r/Blind • 2d ago

Successful_Can4139

Wireless Audio Description Headphones

Hey! My husband has RP, and has recently been learning allllllllll things that enhance his life. 🥺 He is interested in wireless audio description headphones similar to those at the movie theater for at-home viewing. Is there a product out there that does this? TIA! ❤️

5 4 Share



The Blind Life's Community

Public

This Community is a space for you to explore posts and conversations from the creator ...more

Top Newest Creator posts

NC

What's on your mind?

Post ▾

The Blind Life • 6 days ago

Stargardt's Connected Information Day is happening November 15, 2:00-5:30 PM GMT (9:00 AM-12:30 PM EST), and you don't want to miss it! I'll be there, presenting a tech session all about tools and strategies that can make everyday life easier for anyone living with

Read more

13

b big blind gamer • 4 months ago

Hello I have question for you hu is devlaper of the gate. Tel in comment

1 1 Share

Rupesh k • 2 months ago

binocular vision dysfunction (BVD) is the condition where the two eyes are misaligned, leading to the eyes producing

r/Blind

• 1d ago

Rosafell

I'm frustrated with VoiceOver and can't find any helping resources

Dear community,

My dad has gone fully blind due to a serious illness about a year ago. Since then I'm doing everything I can to help him reconnect with the world. He bought a new iPhone 16 and is learning to navigate it with VoiceOver. During the last months I read so much on this sub and I learned so much from all of you. All of your posts and comments on various topics helped making my dad's life a bit easier. For this I want to express my deepest gratitude.

But now I'm making my first post here, kindly asking for your help. I've run into so many frustrating malfunctions with VoiceOver. I can't solve them and I don't see them mentioned anywhere.

In German. Sometimes I suspect that button labels are not correctly read out by VoiceOver. I only see positive feedback regarding VoiceOver online.

in the list of chats. Sometimes VoiceOver actually reads out the button labels correctly, but I only see positive feedback regarding VoiceOver online. When I sit next to him I can obviously see that, but he has no

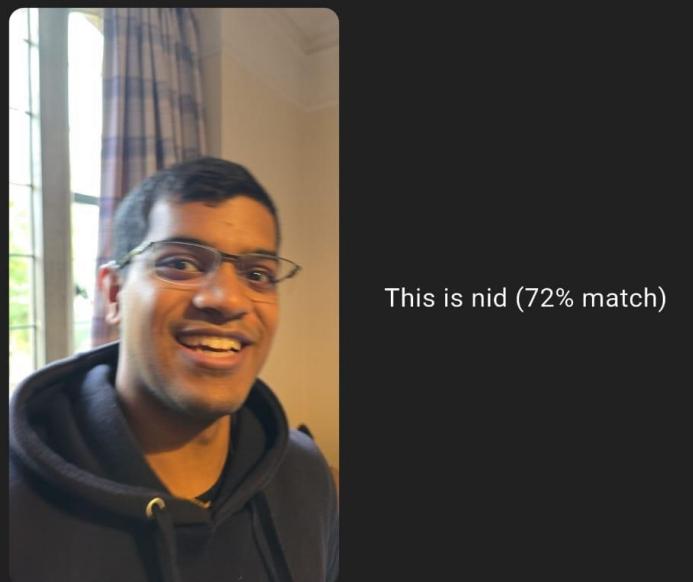
native voice memo app. He's able to start the recording, but when he gets constant feedback from the recording, the pause button is selected even though he didn't click that. But every other button is simply recorded.



Clicker
Ready

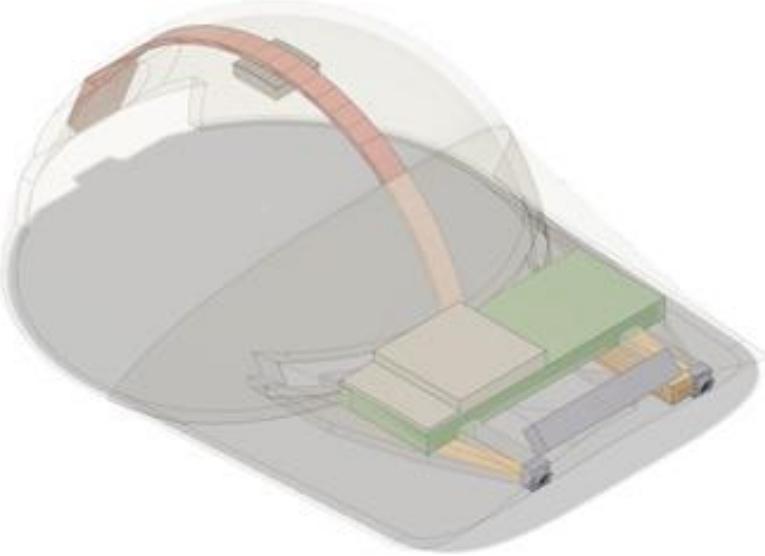


The Team!



8:02 AM | Vyztal + ThirdEye <> Udae: Oxbridge AI X ...





| Product or Solution | Accessibility and Usability | Effectiveness and Functionality | Safety | Training and Onboarding | Affordability and Cost |
|---------------------|--|---|--|---|--|
| Braille | Limited to text; not usable for navigation or object recognition | Effective for reading but not for spatial awareness | NA | Requires learning Braille (can take months) | Low cost but limited application |
| Walking Canes | Easy to use; widely accessible | Effective for detecting obstacles only within short range | Generally safe; risk of missing fast or upper-body obstacles | Minimal training required | Minimal training required |
| Guide Dog | Extremely intuitive and user-friendly | Highly effective for navigation and spatial guidance | Very safe; trained to avoid hazards | Long onboarding and bonding period | Extremely high lifetime cost (£50k+), limited availability |
| OrCam MyEyes | Hands-free and mounted; moderate usability | Strong text-reading and object recognition; no obstacle detection | Safe, non-intrusive | Minimal training; simple interface | Very expensive (£3k–£5k+) |
| NuEyes | Wearable and intuitive; some models bulky | Good magnification, OCR, and visual enhancement; less strong for navigation | Safe but requires user adaptation | Moderate onboarding | High cost (£2.5k–£6k+) |
| EnVision | Smartphone + glasses; high usability for tech-comfortable users | Strong OCR, object recognition; limited real-time navigation | Safe, non-invasive | Minimal training; simple interface | High-cost (£2k+) |
| eSight 4 | Good usability; more suited for low vision than no vision | Excellent visual enhancement; not a navigation tool | Safe, but immersive headset may limit awareness | Requires training to get optimal use | Very high cost (£5k–£7k+) |

