



ISON

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Meet Team Quebec

Our Product

Physical text reading glasses for the visually impaired

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Problem

Visual and learning impairments make life harder:

- ◆ Difficulty reading
- ◆ Limited learning ability
- ◆ Communication barriers

Solution

The ISON glasses are equipped with:

- ◆ Built-in camera and speakers
- ◆ AI to detect text of all fonts
- ◆ Translating app compatibility



Our Customer



Jimothee Zhalamet, 42
Visually Impaired

Jimothee works as an accountant for Sullivan's Office Supply.

- Great at his job
- Can not read due to his disability
- Normal glasses do not help

ISON glasses would allow Jimothee to:

- Read text on physical documents
- Use reading aids inconspicuously



High Level Project Description

Potential Obstacles

Incompletion of the **camera** and **app** subsystems

Feasibility: Moderately Challenging

Subsystem 2

OCR Software

Subsystem 4

Charging
Station

Subsystem 1

Bluetooth

Subsystem 3

Audio Output

Subsystem 5

App



Envision [1]



These companies offer text-to-speech products, but they **stand out** when they're worn.



OrCam MyEye [2]

Competitive Advantage



Problem Objective and Goals

- Detect text and discreetly read it to the user.
- Allow people with low vision to read physical text.
- Improve the quality of life for ISON users.
- Allow use of reading aids without standing out.



Questions?



References

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- [1] “Envision Glasses: Home Edition - AI-powered smartglasses,” Envision Store. <https://shop.letsenvision.com/products/glasses-home>
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- [2] “OrCam MyEye PRO - AI Smart Reading Device for the Blind and Visually Impaired,” Rehabmart.com. <https://www.rehabmart.com/product/orcam-myeye-pro-50630.html>
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- A. Welp, R. B. Woodbury, M. A. McCoy, and S. M. Teutsch, “The Impact of Vision Loss,” Nih.gov, Sep. 15, 2016. <https://www.ncbi.nlm.nih.gov/books/NBK402367/>
-
- “Visual Impairments,” Health Policy Institute. <https://hpi.georgetown.edu/visual/>
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