



# Losing Light

GAME DESIGN DOCUMENT PRESENTATION

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"You don't know what it's really like to be blind unless you are"

-Molly Burke

TO THE AVERAGE PERSON, LIVING WITH VISUAL IMPAIRMENT IS AN ABSTRACT CONCEPT. VIRTUAL REALITY TECHNOLOGY CAN PROVIDE SIGHTED INDIVIDUALS THE ABILITY TO UNDERSTAND HOW LIVING WITH LOW VISION OR BLINDNESS IMPACTS YOUR ABILITY TO INTERACT WITH A WORLD WHICH IS NOT DESIGNED FOR EQUAL ACCESS. LOSING LIGHT IS A REVOLUTIONARY ANSWER TO THE CALL FOR INCREASED ADVOCACY AND AWARENESS FOR LEGALLY BLIND INDIVIDUALS.



A comparison of normal vision (Left) and vision affected by Retinitis Pigmentosa (Right).

## Living with Low Vision: Retinitis Pigmentosa

THE DISEASE WE CHOSE TO HIGHLIGHT HAS NO CURE AND PROGRESSIVELY DESTROYS VISION OVER TIME UNTIL THE INDIVIDUAL HAS NO LIGHT PERCEPTION. DURING ITS PROGRESSION, MANY PEOPLE REPORT TUNNEL VISION OR BLURRED VISION WHICH WILL BE THE BASIS FOR LOSING LIGHT'S VISUAL EXPERIENCE.

# Gameplay Experience



## Virtual Reality

Players will utilize a VR headset like the Oculus Rift to become fully immersed in Losing Light's low vision environment. This game will be designed for PC through Unity VR.



## Keyboard Controls

The use of a keyboard and standard movement controls will give players confidence to navigate the environment while safely seated to prevent collisions with physical objects.



## Multiplayer Experience

Losing Light will feature a 2-player mode which will provide further insight into service animals and the invaluable service they provide for their handlers.

# Chapter Progression Pt.1

Each chapter of Losing Light is thoughtfully designed to immerse sighted individuals into an environment they would otherwise never encounter.

Guide Dog Users must master specific orientation and mobility skills before being teamed with a guide dog which is reflected through the game's story progression. Players are introduced to life with low vision through a cut scene that starts with the player waking up in their bedroom with full vision before gently decreasing their vision to emulate Retinitis Pigmentosa. The player is asked to complete two chapters inside a house environment where they learn to use a cane and practice orienting themselves within the environment. Once the user progresses through those chapters, the player will watch a cut scene where they are paired with a guide dog.



Concept art for Casper, a yellow lab who is teamed with the player as their guide dog. Casper is also the optional second player.

# Chapter Progression Pt.2

Players will complete a tutorial level about working with a guide dog before being challenged with crossing a street safely, navigating a mall environment with stairs, elevators, and escalators, to find a pet store.

The final epilogue is an interactive experience where the player attends a party celebrating the completion of guide dog training. However, once they arrive the player struggles to navigate the crowded space. Players get help from a friend, who helps them understand the challenges of working with a service dog and find a purpose beyond this experience.



Concept art for various environmental components that the player will interact with during the street crossing level and mall navigation level.

A photograph of a woman with blonde hair, wearing a grey coat and a black scarf, assisting a blind man. The man is wearing a dark jacket with a yellow patch on the sleeve, sunglasses, and is holding a white cane with a red tip. They are walking on a city street with cars and buildings in the background. A pink vertical bar is visible in the top right corner of the image.

# Core Gameplay

For the visually impaired player's user interface there will be few visual elements. Because of their limited vision, players will need to heavily rely on audio cues, dialogue, and the ambient soundscape. The game objectives and instructions will be given to the player through audio clips that can be repeated from a bound key. This is meant to further the experience of not being able to use vision to understand the world around you. While the soundscape will be slightly different for the guide dog character, the second player will also rely on verbal instructions from NPC's and the visually impaired player to successfully guide their handler through each level.

# Player Mechanics/Controls

## ▶ **Player One – Visually Impaired:**

- ❓ Find Door: Shift Key + 1 – Gives command to find nearest door to Casper
- ❓ Find Stairs/Escalators: Shift Key + 2 – Gives command to find nearest Stairs/Escalators to Casper
- ❓ Find Seat: Shift Key + 3 – Gives command to find nearest seat to Casper
- ❓ Find Crosswalk Light: Shift Key + 4 – Gives command to Casper to stop Player on near the closest crosswalk button before the intersection

## ▶ **Player Two – Casper:**

- ▶ Keys 1-2 will effect both players by going faster, going slower
- ▶ Keys 3-4 will allow Casper to focus on either sight or hearing
- ❓ Sense Guide – Right Click Hold – Highlights things that are useful for the guide dog to complete its task
- ❓ Arm Guiding – This happens during certain level in which player two acts as a human and must arm guide player one to navigate through crowded places



A photograph of a person with a white guide dog on a sidewalk. The person is wearing dark pants and a white shirt. The dog is wearing a harness and is looking towards the left. A white cane is visible in the foreground. The background is slightly blurred, showing a sidewalk and some greenery. A pink rectangular shape is in the top right corner of the image.

## After the Experience:

Despite the prevalence of visual impairment in the global population, very few people truly understand what living with blindness or low vision is like. Creating this game can serve as a tool for activists who continue to push for increased accessibility and universal design practices.

After completing *Losing Light*, players will be empowered through education and personal insight to advocate for increased accessibility, the need for universal design, and the importance of respecting service dog etiquette.

Developing this game will leave a lasting positive impact on its players and the world we all live in.



***Losing Light***

THANK YOU FOR YOUR CONSIDERATION