**Visual Impairment Simulator**

***Release 1.0*  
10 September 2018**

Visual Impairment Simulator is tool for people who want to experience what it's like to have a visual impairment. Using a Google Cardboard V2 headset, the user can experience visual impairments in a virtual reality.

# Requirements

* Requires Android 5 (Lollipop) or higher
* Google Cardboard V2
* Most recent models with a gyroscope and 4 to 6 in screens (10 to 15 cm) are supported
* Phones a year or two older may suffer from poor frame rate, latency, and other issues

# Release notes

This first release has the basic functionality of the app working. The app currently simulates 5 impairments. They are:

* Cataracts
* Diabetic Retinopathy
* AMD
* Glaucoma
* Hemianopia

The first release was designed for the Save Sight Symposium held at Otago Polytech. The panoramic images in this release are of places all around Otago Polytechnic.

The application cycles through each of these impairments, and keeps looping through unless the close button is pushed.

# Instructions

Start the application. Put the phone into the Cardboard device. Adjust the lenses and phone position until the first image is clear.

The user can now look around and will 3D representation of the image.

The user can pull the trigger on the cardboard device, and the current impairment will get worse.

Keep pulling the trigger until the image changes.

The user will be in a new image and will experience a new impairment.

Repeat these steps until all impairments are completed.

# Known Problems

* VR won’t load on Android versions higher than 7.1.2.
* Instructions screen needs to be added.
* Ability to go backwards now working