DE687

DESIGN EXPLORATION SEMINAR

Project Title: **Glasses for Colourblind**

Submitted by
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Under the guidance of
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Approval Sheet

The Design Exploration Seminar Entitled “Biomimicry” by Pratik Bansode, 216390007 is approved in partial fulfillment of the requirements for a Master of Design degree in Mobility and Vehicle Design.

Digital Signature
Nishant Sharma (i09069)
12-Aug-23 12:07:25 PM

Project Guide: Prof. Nishant Sharma

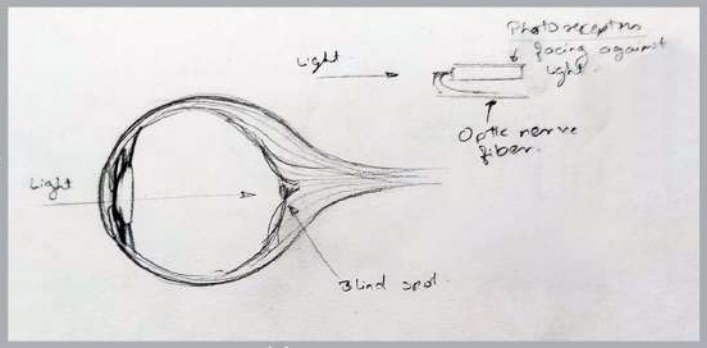
Signature:

https://ams.iitb.ac.in/d/116653-TPEH8BPYYTRVF8TT

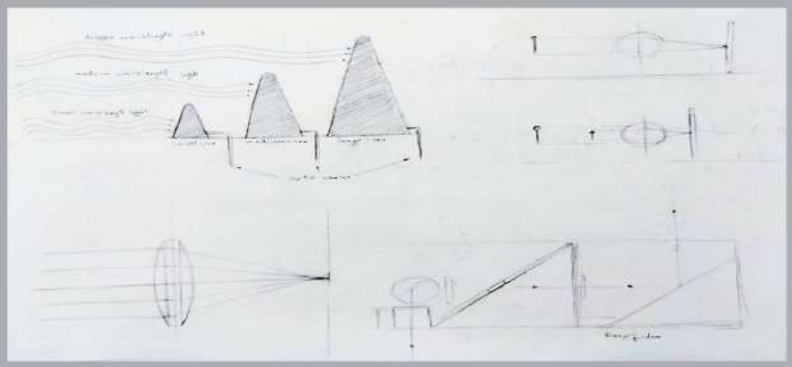
WORKING OF OCTOPUS EYE

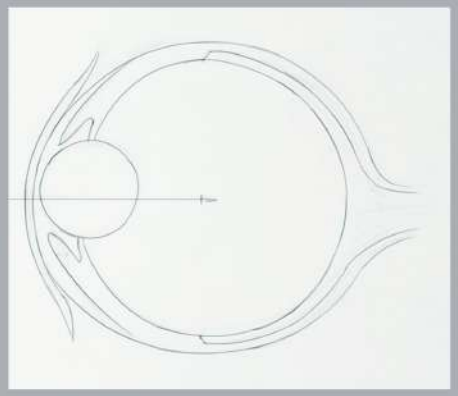
CEPHLOPODS

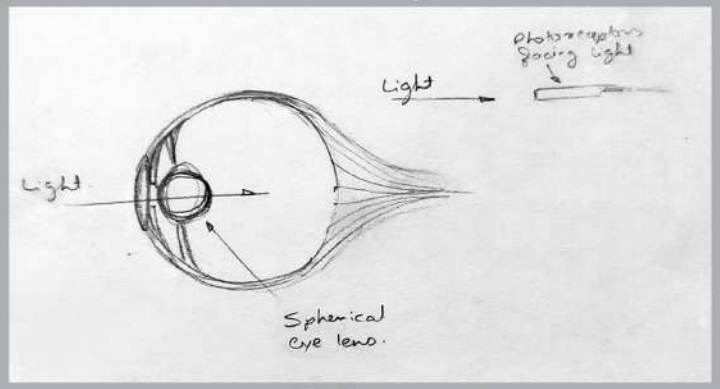
Octopus Eye works like a cameraLens. To focus on any object, human eye use muscle to contract and relax the lens. But in Octopus and most of the Cephalopods, the lens in the eye does not contract, except the entire eye contracts, thus changing the distance between the lens and retina like a camera. This allows them to percive colour. By a phenomenon called as **Chromatic Abberation**. By using this principle people with colour vision deficiency can see colour.



Human eye

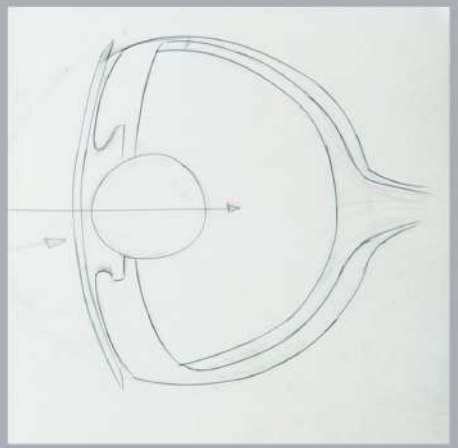


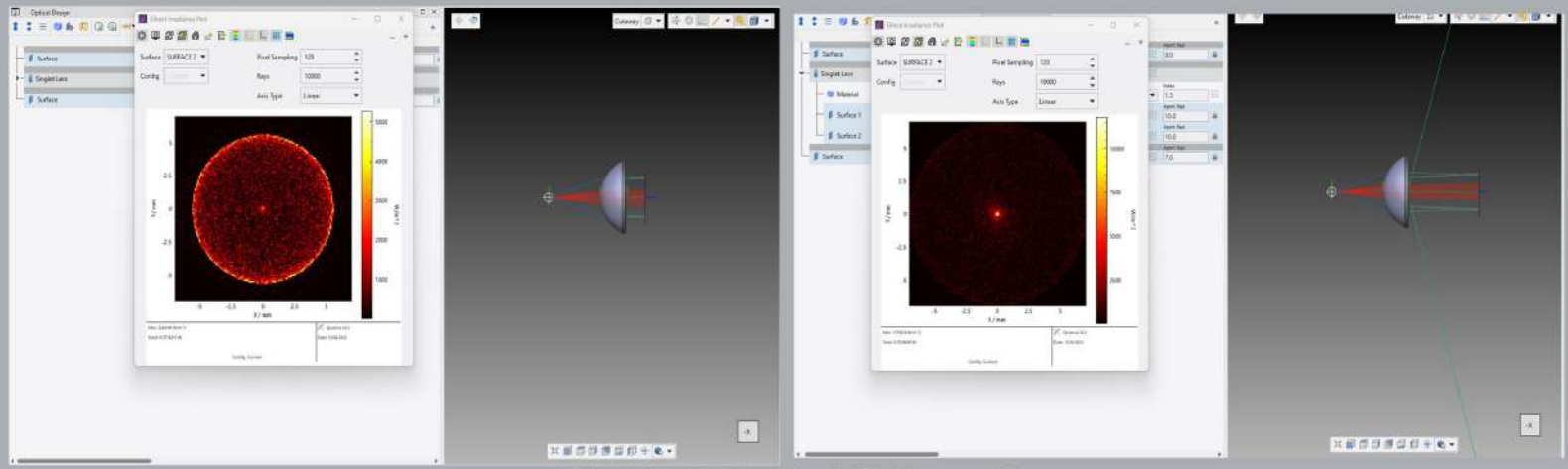




Octopus eye

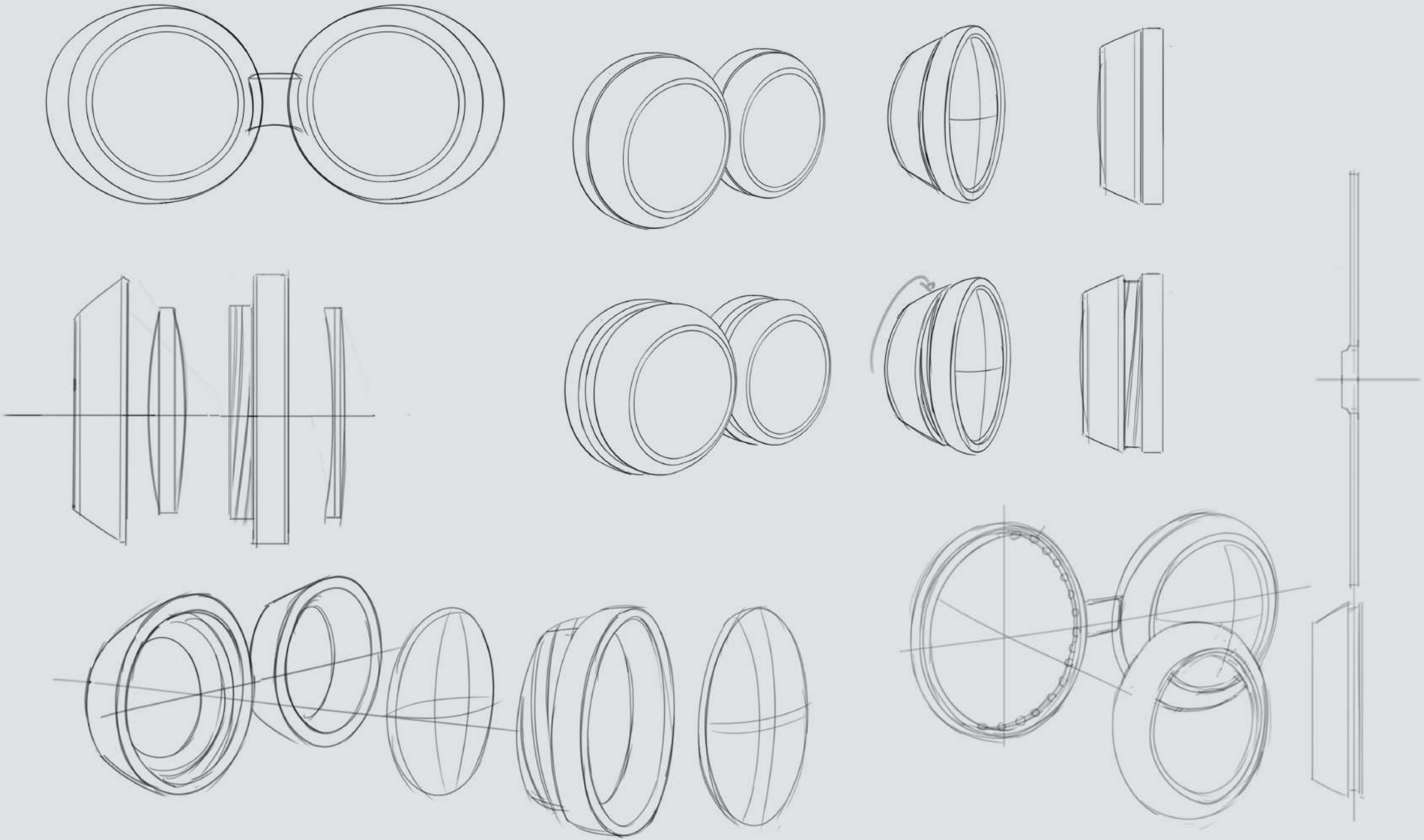
Chromatic Abberation





Simulation test of Octopus Eye

CEPHLOPODS



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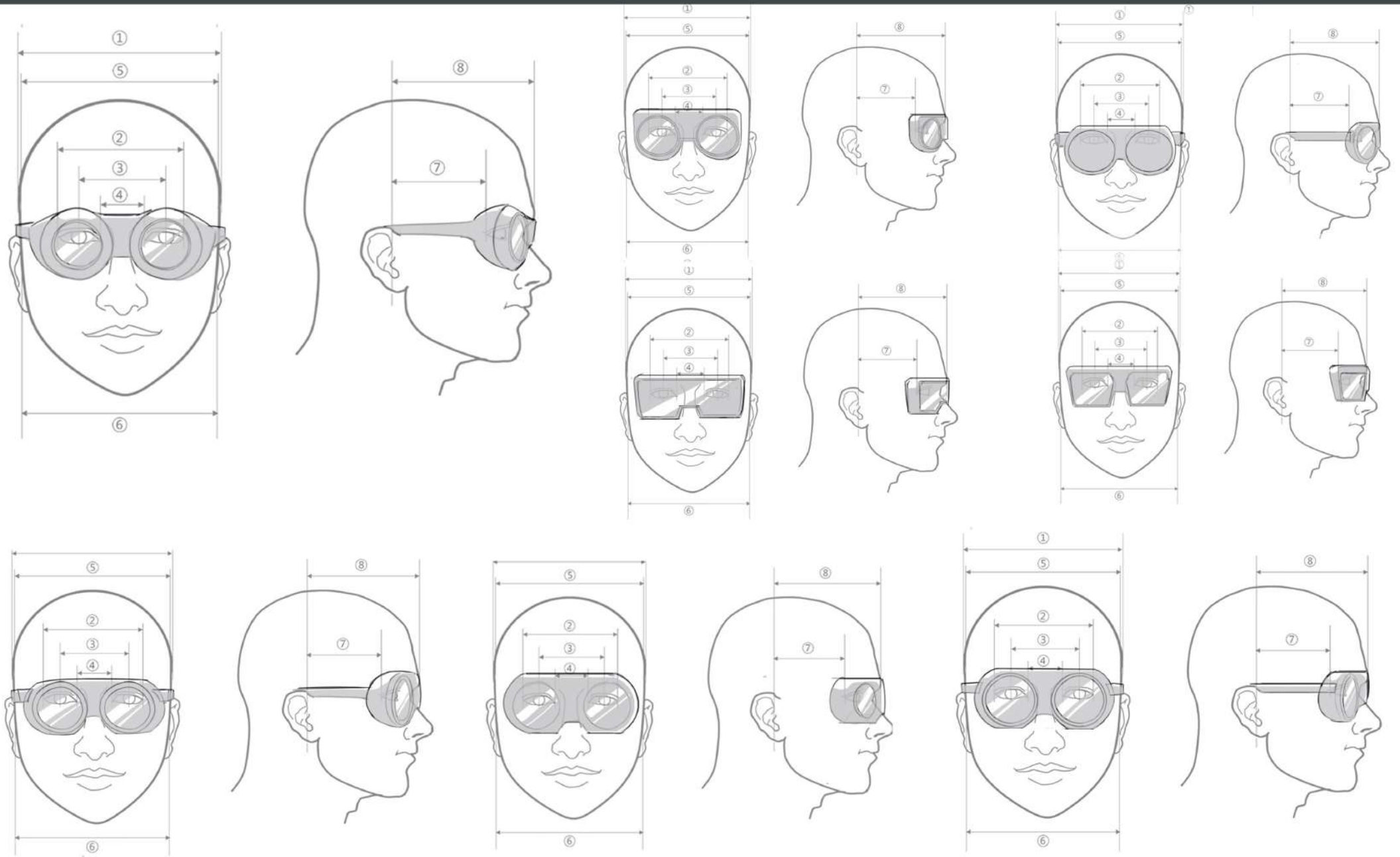
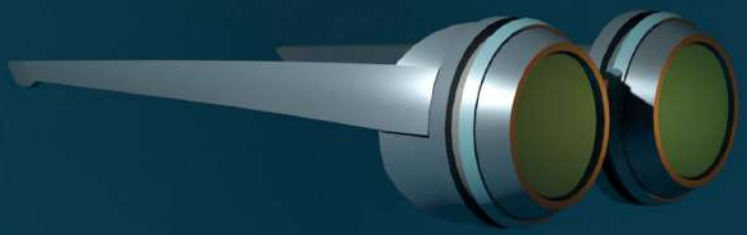


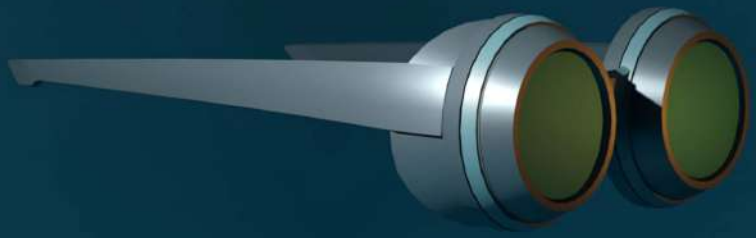
CEPHLOPODS

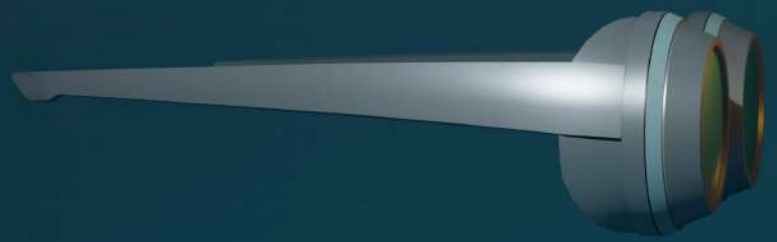
These specs will allow the people with **Deuteranomaly** (Red-Green Colour Blindness) to percive red light by adjusting the dial provided on the sides of the specs.

FINAL RENDERS

CEPHLOPODS







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