


# The First 3D Printed Retinoscope

CHRISTIAN CRESPO

3<sup>RD</sup> YEAR YEAR DOCTOR OF OPTOMETRY CANDIDATE  
SUNY COLLEGE OF OPTOMETRY

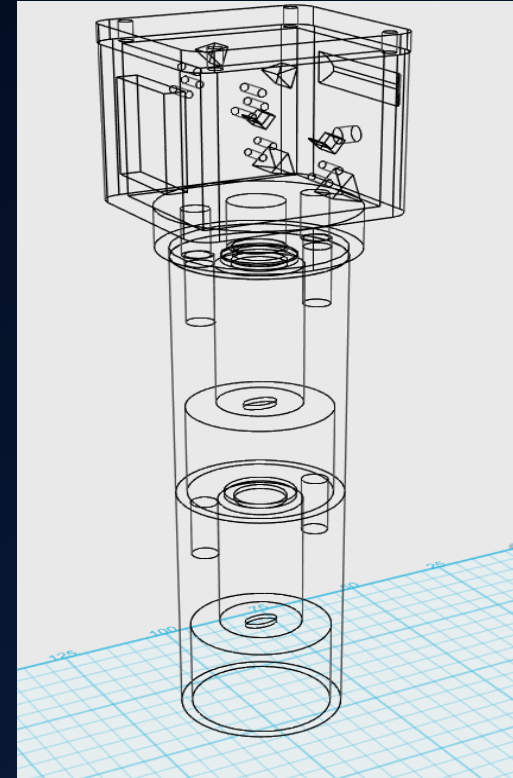
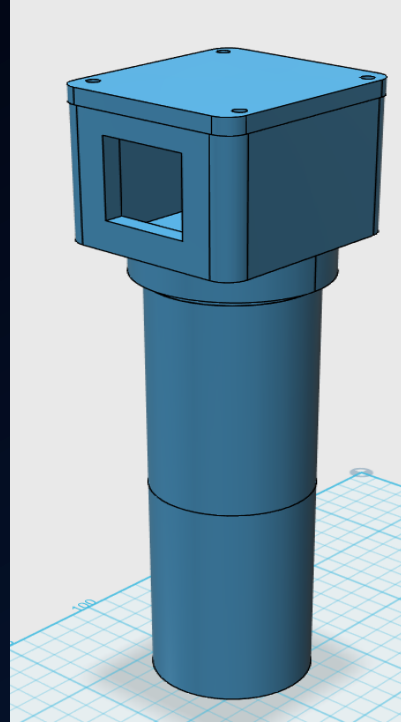
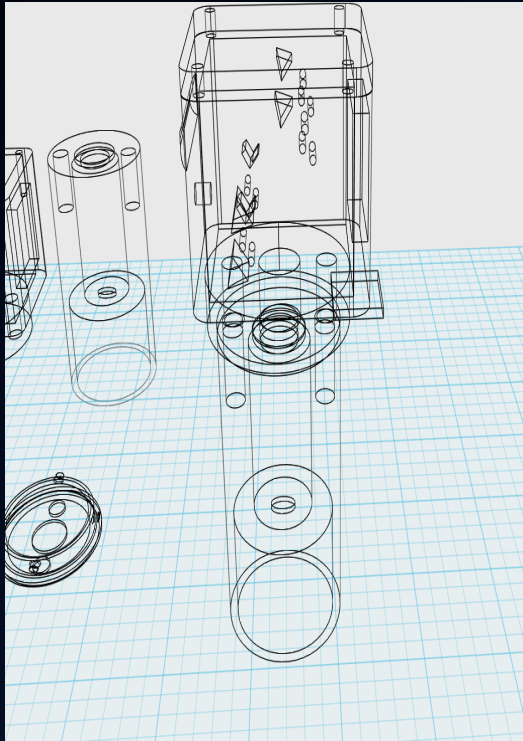


Uncorrected refractive error (URE) is  
the second leading cause of  
preventable blindness worldwide <sup>[1]</sup>

How can we provide adequate, low-cost infrastructure to reduce URE incidence??

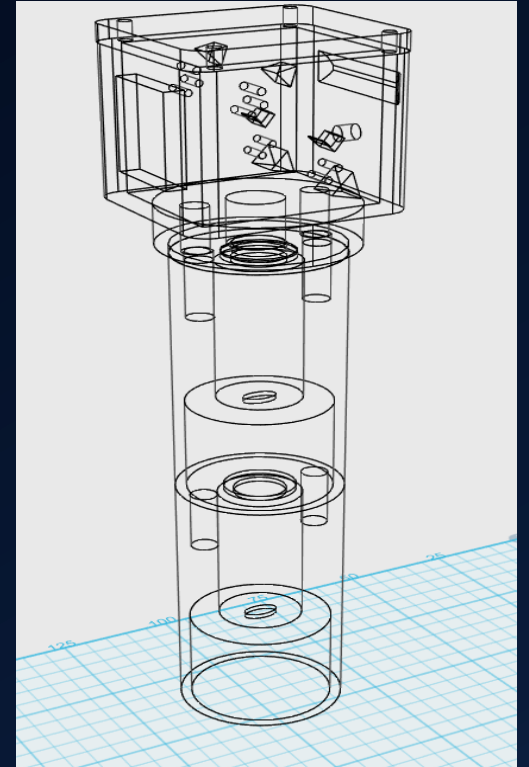


# My 3D Printed Retinoscope: Auxilium



# Auxilium Features

- Total material production cost: \$25.00
- LED light source
- Rechargeable battery (7 hour battery life)
- Ability to detect Sphero-cylinder RX'es
- Pros of 3D printing technology



# Design is More Affordable



## Welch Allyn 3.5v Streak Retinoscope with Handle in Case 18242 Free Shipping

★★★★★ 1 product rating

Condition: **New**

Quantity:

1

More than 10 available

Price: **US \$405.00**  
\$37 for 12 months \*

**Buy It Now**

**Add to cart**

Best Offer:

**Make Offer**

♥ Add to watch list

**Free shipping**

30-day returns

Longtime member

**Bucks** You'll earn **\$4.05** in eBay Bucks. [See conditions](#)

Shipping: **FREE** Expedited Shipping from outside US | [See details](#)

International items may be subject to customs processing and additional charges.

Item location: CHANDIGARH, CHANDIGARH, India

Ships to: Worldwide



# What's Next?

- Changes to current prototype
- Teaming up with charities and humanitarian non-profits
- Distribution
- Training

# In Summary...

Optometrists have a role to play in reducing the incidence of refractive error blindness

3D printing technology has a functional application to the field of optometry.

Uncorrected refractive error should not be a barrier to function successfully in society.





Thank You!