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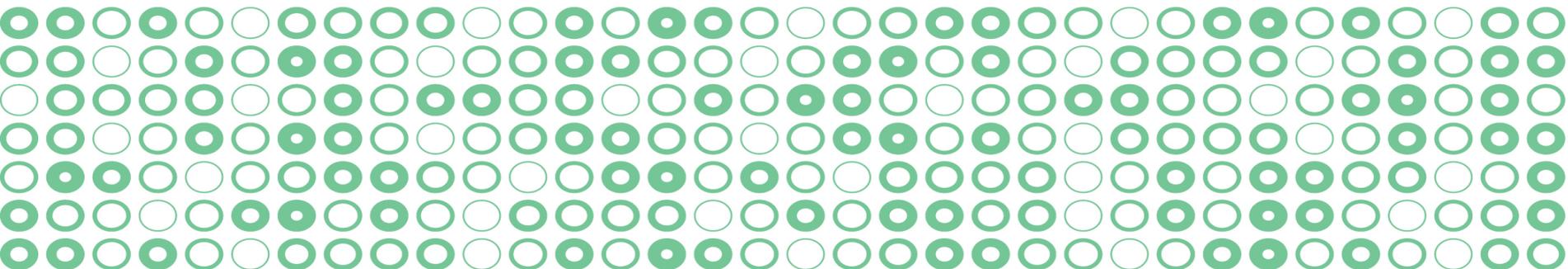
CLINICAL SERVICES • EDUCATION • RESEARCH

Lens correction and Technology solutions

Mae FA Chong

BOptom, PGDipAdvClinOptom PGCertOcTher FACO

Lead Optometrist Low Vision Services





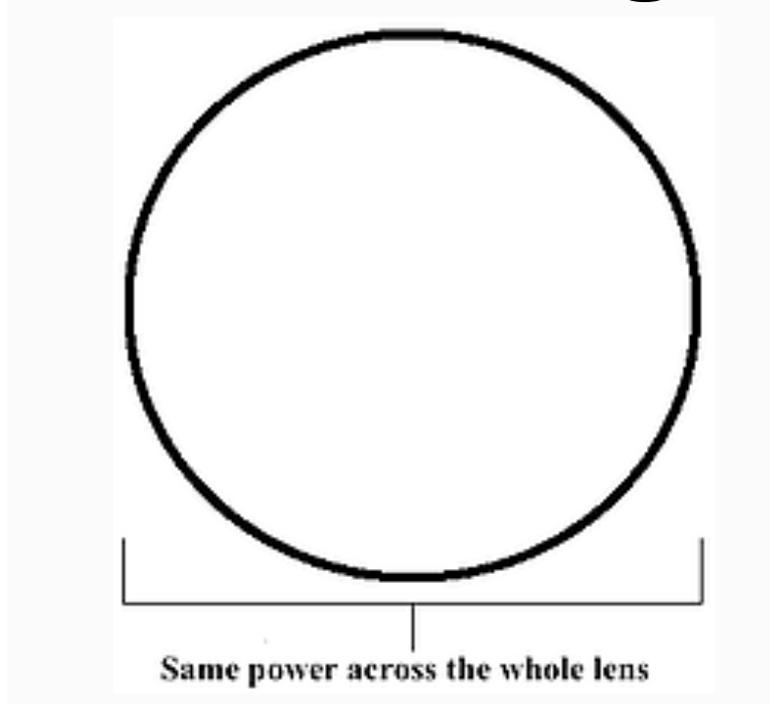
An Introduction to Spectacle Lenses

There are three elements to consider in spectacle lenses:

- Design
- Material
- Coatings



Lens design – Single Vision



www.essilor.com.au

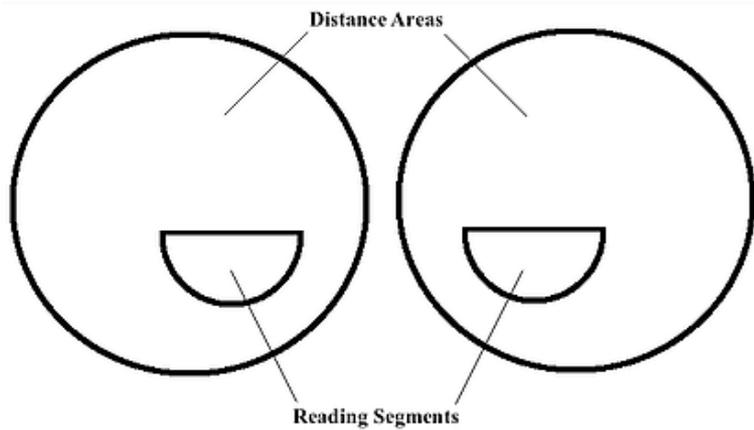
www.rouseopticians.com



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Lens design – Bifocal



www.rousopticians.com



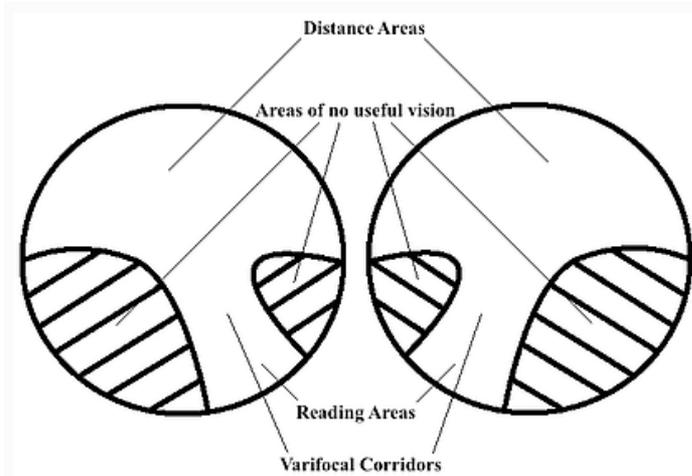
www.littleforeyes.com



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Lens design – Progressive



www.rouseopticians.com



www.essilor.com.au

Lens Material

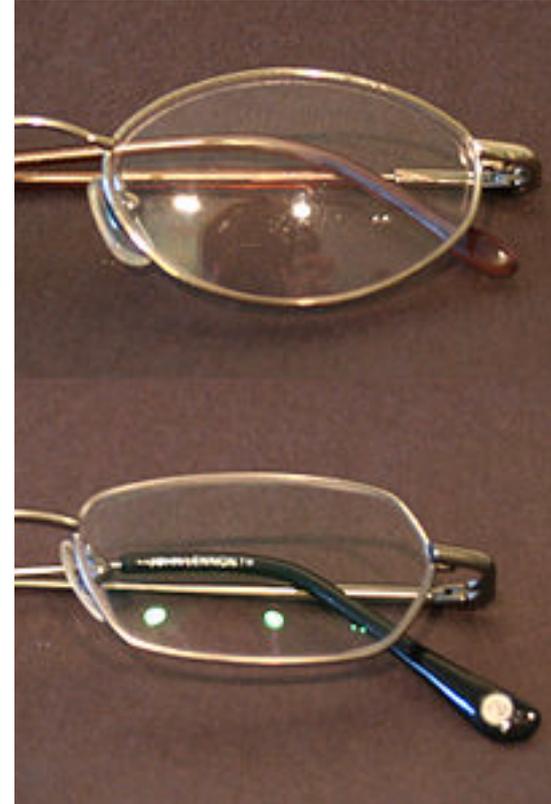
- Glass is heavier but thinner than plastic
 - Glass is more likely to shatter but is more scratch resistant
 - Plastic offers better UV protection
- ‘Refractive index’ is a measure of how much light can bend in a material. A material with a higher refractive index allows the lens to be thinner while achieving the same spectacle correction.
- Photochromatic materials – change colour in response to UV light. Allows for one pair to be used inside at night and outside in bright sun. Examples are PGX (glass) and Transitions (plastic).



Lens Coating

Optional add-ons:

- Tinting
- Anti-reflex coating
- Anti-scratch coating
- UV attenuation coating

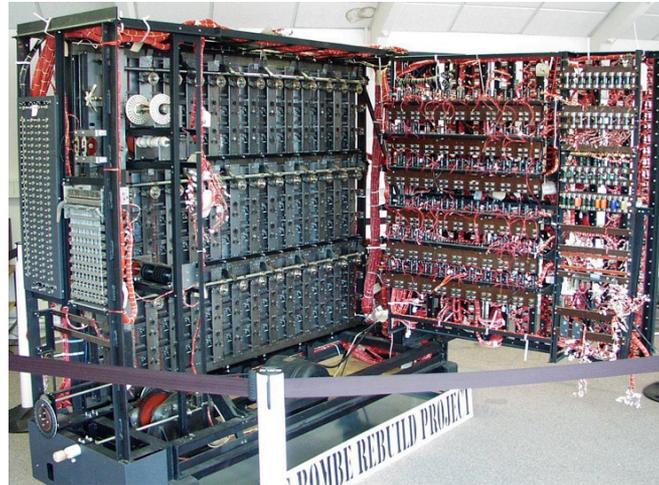




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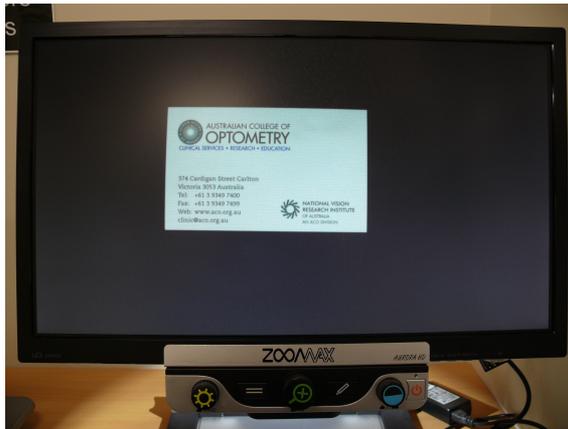
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Technology solutions

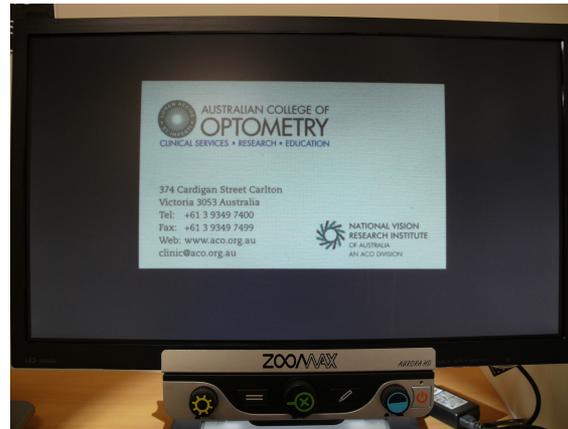


<http://wikipedia.org>

Variable Magnification



Low magnification



Moderate magnification



High magnification



Contrast adjustment



Colour



White on Black



Black on White



Yellow on Blue



Contrast adjustment



Colour



White on Black



Black on White



Yellow on Blue



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Desktop CCTVs

Monitor

Control Panel

Camera

Mag: 1.9 to 170x



www.zoomax.co



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ClearView Flex

www.quantumrlv.com.au



www.freedomscientific.com



www.humanware.com.au

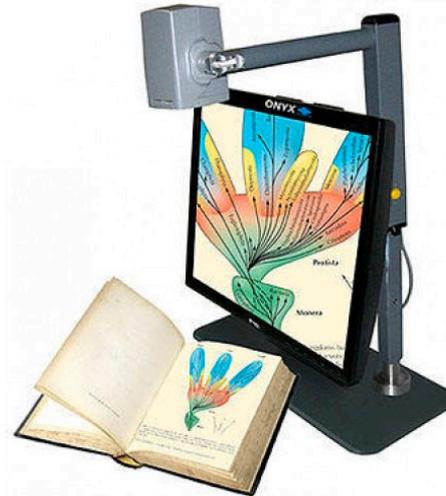


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www.humanware.com.au



www.lowvision.com.au



www.quantumrlv.com.au



Hybrid CCTVs



www.freedomscientific.com



www.humanware.com.au



ClearNote HD

www.quantumrlv.com.au

Portable CCTVs

- Variable contrast
- HDMI connections
- Reading stand



- Rotatable camera
- Screen capture/
photograph function
- Variable
magnification

1.7-24x magnification

Portable CCTVs 3-4.5”



Compact+ HD

www.quantumrlv.com.au



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www.eschenbach.com



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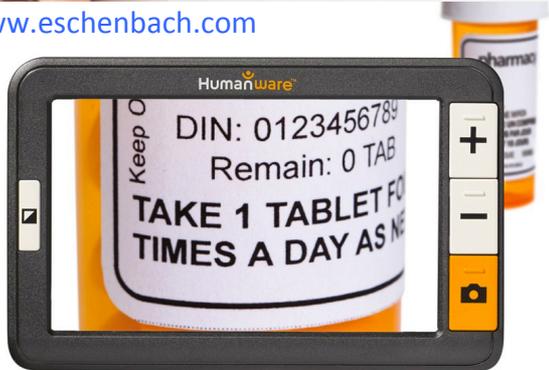
Portable CCTVs 5”



www.eschenbach.com



www.freedomsscientific.com



www.humanware.com.au



Compact 5HD

www.quantumrlv.com.au



Portable CCTVs 7"



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Compact 7HD

www.quantumrlv.com.au



Smartphone/Tablets

Inbuilt into OS (Apple and Android)

- Siri/ OK Google
- VoiceOver
- Large/bold print
- Magnifier/ zoom
- Speech command

Apps

- So many!!





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Other Technology – Trekker Breeze





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Newer Technology - Orcam





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Newer Technology - IrisVision





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Quantum www.quantumrlv.com.au

Vision Australia www.visionaustralia.org