Low-cost solar-powered tool to prevent unnecessary blindness and deafness

Dr Martin Anderson
Honorary Research Fellow
University of St Andrews
Burden of Disease

Visual Impairment
- 253 million
- 80% preventable

Hearing Impairment
- 360 million
- 60% in children preventable

Inverse Care Law
Ophthalmoscope
Eye Disease

Otoscope
Ear Disease

Blindness

Deafness
Barriers to Access

Initial Cost

- Replacement Battery: $110.00
- Replacement Bulb: $35.00
- Replacement Handle: $129.00

Consumables

- Replacement Battery: $465.00
- Replacement Bulb: $420.00
- Replacement Handle: $129.00
How to overcome barriers

Solution

- Low Cost
- Consumable Independent
- Light weight and Robust
- Easy to use
- Portable
- Ideal for Low Resource/Rural Setting
A Low-Cost Solar Powered Diagnostic Tool to reduce blindness & deafness

Dr Martin Anderson
Mobile Phone Camera Attachment – Device of Record
Internal Memory in Arclight – ‘Off-Line’ Education
Research Studies
Evidence Base

As good at detecting eye signs including glaucoma and diabetic retinopathy and easier to use

Low Cost – Portable – Solar Powered – Multi-Functional
The International Agency for the Prevention of Blindness

The IAPB Essential Lists

First batch of 10,000 has SOLD OUT

Subscribe to the IAPB Standard List newsletter to stay updated
Our Ask

• To find collaborators to launch the Arclight in the USA

• To work with new partners to fund distribution at scale in low and middle income countries