The Global Need for Pediatric Imaging

During the course of their intensive neonatal care, 37–54% of preterm babies contract a potentially blinding eye disorder known as Retinopathy of Prematurity (ROP). Unless early intervention is carried out, 7–15% of these babies are at risk of going blind.

Approx 15 m are born preterm

Of these, >3.5 m preterm births are recorded in India alone

130 m* babies are born each year

Further, retinoblastoma is the most frequent neoplasm of the eye, accounting for 3% of all childhood malignancies. Globally, nearly 1 in 15,000 children develop retinoblastoma and 8,600–9,000 children are newly affected each year.**

The need of the hour is an affordable, wide-field imaging solution to screen, evaluate, and photo-document pediatric ocular diseases.

**wehope.org

*UNICEF

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Innovation in Design

The 3nethra neo is a compact, portable, and easy-to-use mydriatic wide-field digital imaging system used for the photo documentation of ocular diseases that manifest in infant eyes. The ergonomically designed, lightweight handpiece allows for single-handed operation, and captures 120-degree high-resolution images of the posterior and anterior segments of the eye. The device acquires only digital photographs of the eye and does not provide any analysis or diagnosis. The contact device is easily operated by qualified clinicians and can be deployed in versatile clinical environments such as hospitals, operating rooms, and Neonatal Intensive Care Units (NICU).

Digital Health Platform

Cloud-based platform for secure electronic uploading of high-resolution digital images by operators and remote review by qualified clinicians.

Digital Health Platform availability is subject to local regulatory requirements/infrastructure and therefore varies from country to country.

Innovation in Design

- Unique built-in compact warm white LED-based illumination system
- Innovative focusing system that enables noiseless operation
- Complex and compact optomechanics to make the probe lightweight
- Wide-field imaging at 120 degrees

Salient Features

- Integrated provision for historical data
- Intuitive controls and workflow
- Compact and ergonomic design
- Lightweight and easy to use
Delivers Objective Evidence

120-degree FOV

- Photo-documentation of visual health for medico-legal purposes
- Enhances consultation, improving communication with patients

Photographs captured by 3nethra neo do not provide any pathological analysis or diagnosis for treatment. The device assists clinicians in the evaluation, diagnosis, and documentation of visual health.
This convenient and full-screen view of the fundus images allows for easier comparison between images taken during different visits. This enables clinicians to evaluate the ocular condition’s progression or regression faster.

The magnifier option aids in better analysis of the formation and tortuosity of blood vessels.

The report provides the photo-documentation of ocular conditions along with the findings for each eye to indicate a further course of action. The automatic segmentation of the images to the specific image fields in the report allows the variability of the images to be characterized separately for each eye. The review software enables sharing of the report through email.
## Product Specifications

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Resolution</td>
<td>2048 X 2048, 24-bit colors</td>
</tr>
<tr>
<td>Minimum Pupil Diameter</td>
<td>4 mm</td>
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<tr>
<td>FOV</td>
<td>120 degrees, when measured from the center of the eye</td>
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<tr>
<td>Adjustments</td>
<td>Intensity, Gain, Balance, Brightness, Contrast, Gamma, and Focus</td>
</tr>
<tr>
<td>Imaging</td>
<td>Still images and burst mode images</td>
</tr>
<tr>
<td>Compatability</td>
<td>DICOM Export, Telemedicine, USB 3.0</td>
</tr>
<tr>
<td>Weight of Handheld Unit</td>
<td>340g (720g with cable)</td>
</tr>
<tr>
<td>Dimensions of Handheld Unit</td>
<td>210 (L) X 70 (W) X 60 (H) mm</td>
</tr>
</tbody>
</table>
| Operating Environment     | Temperature: 22–26°C  
Humidity: 30–70%  
Atmospheric pressure: 70–106 kPa  
Altitude: 0–2000 meters  
AC 100–240 V, 50/60 Hz (for DC power adapter 5V/4A) |
| Minimum System Requirements | Intel i5 or better, OS Windows 10 (64-bit) and Windows 10 (64-bit) Pro, with 8 GB RAM, at least 500 GB HD, dedicated graphics card with 2 GB or more memory, at least two USB 3.0 ports, display capable of 1920 X 1080 resolution, 1.2 Mbps or faster internet connectivity. The computer must conform to IEC60950 Ed 2.0 or equivalent standard |

This product is available for sale in the US, Canada and Europe.