



Save Sight and Stay Safe with Simple, Smart Screening Solutions

By Brooke Herron

Tongue-twisting titles aside, we have a massive, global problem: According to the WHO, 2.2 billion people have vision impairment or blindness. Of these, more than 1 billion could have been prevented or have yet to be addressed. Add the ongoing COVID-19 pandemic to this issue and it becomes clear that sustainable solutions are needed.

Fortunately, with the development of artificial intelligence (AI) and related technologies, we are getting closer. Thanks to companies like Adaptica, which is part of He Vision Group (Shenyang, China), there are now simple, smart, fast, portable AI devices to detect refractive errors and visual defects. With these devices, Adaptica wants to close the gap between people with ocular impairments and those that could have been prevented.

According to Adaptica’s Director of International Sales Vasileios Skountis, the Padua, Italy-based company is an industry pioneer thanks to its use of tech, AI and cloud storage, which combine to form solutions — rather than just products — with the “fastest ROI in the market.”

“Our ambition is to revolutionize the standard way to perform eye examinations by developing easy to use, AI-based technologies that guarantee a complete exam anywhere in the world through our global consolidated distributor network,” said Mr. Skountis, adding that this is all made possible using the company’s EyeROBO® AI platform.

“AI is the best solution to perform exams in a more efficient and cost-effective way, making the highest

quality health care services accessible to all,” he shared.

And this is where two Adaptica devices — 2WIN and Kaleidos — could have a noticeable impact. Both have the same purpose: to measure objective refraction and vision problems in real life vision conditions. Both are portable and can be used anywhere. However, similarities aside, their usage is entirely different.

Streamline mass screenings with Kaleidos

A big advantage of Kaleidos is that it can be used by anyone — no optometric training is required. It works best in high light conditions which makes it ideal for outreach projects, or in schools and other mass screenings; however, it can also be used in clinics and hospitals.

The device serves as a darkroom: To obtain measurements, the patient looks into a dark tube. The test is non-invasive and

results are obtained quickly — in less than 3 seconds — which saves both time and money.

Kaleidos is certainly beneficial to doctors, but these measurements — which can detect a variety of parameters — can be taken by anyone. “For example, inside a clinic, while the patient is in the waiting room, he can do the measurement with an assistant, so the doctor already has the objective refraction as a starting point for the final prescription for the glasses,” explained Mr. Skountis.

“The application is fully automatic and easy to use, the operator just needs to follow instructions to proceed with the measurement,” he continued.

Further, with the Kaleidos Plus configuration, screenings can be even more effective using EMR integration and the AI Anterior Segment Screening function — a cloud-based AI system to detect anomalies in the front of the eye.





2-WIN is a clear win in daily practice

On the other hand, 2WIN is indicated for use by skilled operators, like pediatricians, ophthalmologists, opticians and optometrists. It works in dim-light conditions, making it more suited to clinics, hospitals and private practices. The device can be configured for several applications, including: corneal reflex readings, lens centering, dynamic pupil response and VDUs distance indications — and compared to the competition, it has the most applications.

“For this reason, the device is the perfect ally for ophthalmologists, opticians and optometrists in their daily practice,” said Mr. Skountis.

Of all the 2WIN’s added features, the most advantageous is the CR-App, said Mr. Skountis. The CR-App is only available on Adaptica devices (including Kaleidos) and it helps analyze corneal reflexes using documented information of phorias and tropias (horizontal and vertical) up to 30 prism diopters. The CR-App also compares the position of

the corneal reflexes in three different measurements (one binocular and two cover tests under an IR occluder).

Another major advantage of 2WIN is its versatility. It can be used on any patient — including infants and those who are non-cooperative or disabled — thanks to the device’s employment of sound, light and images to help attract the patient’s attention. Patients with postural problems can also be measured with 2WIN thanks to an interior gyroscope allowing it to acclimate to tilt. In these cases, it also will measure the correct cylinder axis.

Solutions for safe screenings during COVID-19

So, how does Adaptica assist eyecare professionals and patients in this challenging time? It’s simple, according to Mr. Skountis: “By producing devices that have never needed close proximity between the patient and technician.”

Using Kaleidos, operators can maintain a safe 1-meter distance from patients, thanks to remote tablet control. “With this device, subjective refraction

can be performed in the fastest way possible, while respecting all sanitary recommendations from the WHO,” he said, adding that both Kaleidos and 2WIN are completely portable which makes home visits feasible.

For more on Adaptica and its product catalog, visit www.adaptica.com or email contact@adaptica.com.



Helping the people who need it most

Adaptica, along with He Vision Group, is involved in numerous non-profit screening initiatives around the world to provide eye care screening, as well as preventative care and treatment, to the people who need it most.

“Together, we can contribute, provide access and give them the chance to identify and correct refractive errors, strabismus and amblyopia,” said Mr. Skountis.

In 2020, Adaptica was approved to become a standard supplier for the IAPB (International Agency for the Prevention of Blindness), which is a list used by NGOs to source the best equipment for their needs.

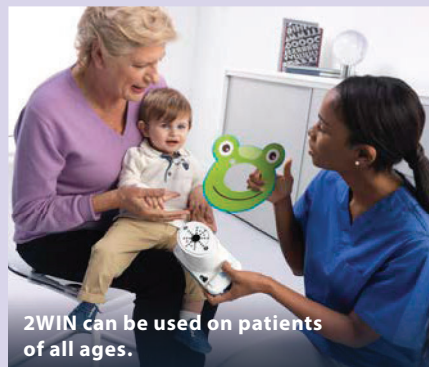
“Adaptica cooperates with several NGOs all over the world and we are really proud that our devices can contribute so much in helping improve people’s lives,” continued Mr. Skountis.

Kaleidos is also a great tool for prevention, and can be used to raise awareness about good vision. For this reason, Kaleidos is often used by NGOs for mass screening projects “During one project on the Amazon River, one of the NGOs we cooperate with was able to screen almost 900 patients per day,” shared Mr. Skountis.

And that’s just one project — now, imagine the impact these devices could have on those 2.2 billion people suffering from vision impairment or blindness...



2WIN



2WIN can be used on patients of all ages.



No optometric training is required to operate Kaleidos.



Kaleidos