

TECH OFFER

Ocular Therapy for Glaucoma Prevention



KEY INFORMATION

TECHNOLOGY CATEGORY:
Personal Care - Wellness & Spa

TECHNOLOGY READINESS LEVEL (TRL): **TRL7**
COUNTRY: **HONG KONG**
ID NUMBER: **TO175222**

OVERVIEW

The market for glaucoma prevention lacks proactive solutions, often leaving at-risk individuals to wait for diagnosis before starting treatment. This technology offers a non-invasive, preventive approach that helps manage intraocular pressure (IOP), a major risk factor for glaucoma. It is designed to be used regularly by those at high risk of developing glaucoma, providing a way to actively maintain eye health without the need for drugs or surgery.

In addition to helping reduce IOP, this device can benefit individuals suffering from dry eyes or eye strain, offering daily relief from discomfort. By offering a safe and effective option for maintaining eye health, this technology fills an important gap by enhancing overall ocular health management.

The technology owner aims to collaborate with key partners to enhance their technology:

- Ophthalmic Clinics/ Spectacles Companies: To conduct (clinical) trials and validate the effectiveness of the goggle on people with glaucoma and/ or dry eyes.

- **Product Development:** Looking to collaborate with a designer to enhance the product's usability and comfort, while also working together on optimizing it for manufacturing.

TECHNOLOGY FEATURES & SPECIFICATIONS

This yoga-inspired goggle addresses this gap by offering a 15-minute ocular therapy for glaucoma prevention and eye moisturization.

The device includes 2 key systems:

- **A heating module:** Gently warms the cornea to relax tissues and improve blood circulation around the eyes by dilating blood vessels.
- **A vacuum module:** Adjust the pressure within the goggle chamber to gently stretch the cornea without contact. This enhances flexibility and helping to reduce intraocular pressure, a primary cause of glaucoma. It also proactively drains ocular waste from the Meibomian glands.

Together, these modules work as a “hot-yoga” goggle to support ocular health by prolonging eye moisture and hydration with the potential of slowing the progression of glaucoma and preventing glaucoma.

POTENTIAL APPLICATIONS

- **Healthcare Industry:** Applicable in ophthalmic clinics, hospitals, and vision centers for preventive glaucoma therapy, as well as managing dry eyes and eye strain in patients.
- **Home Healthcare:** Provides at-home therapy for individuals seeking non-invasive solutions to maintain ocular health, reduce eye discomfort, or prevent glaucoma.
- **Wellness Centers and Spas:** Can be integrated into eye care programs for relaxation and eye strain relief as part of broader health and wellness services.
- **Workplace Wellness Programs:** Designed for professionals experiencing screen-related eye strain, the goggle can be offered as part of workplace health initiatives to improve employee well-being.

UNIQUE VALUE PROPOSITION

- **Glaucoma Prevention:** This solution reduces eye pressure without drugs or surgery. The goggle does not have these side effects of decreased blood flow or nutritional supply to eyes. Users experience lower pressure and increased tissue flexibility through ocular therapy. The goggle is safe for those at high risk of glaucoma, reducing the need for frequent ophthalmologist visits. Users only need to use the device for 15 minutes a day over 12 weeks to enjoy its benefits.
- **Universal Efficacy:** This solution can be seen as a “hot-yoga therapy” for the eyes. It has been proven effective across diverse groups, including variations in age, ethnicity, biological sex, and ocular disease history. More than 83% of test subjects experienced reduced eye pressure, and more than 93% showed improved tear levels.
- **Relief from Daily Eye Discomfort:** This solution effectively relieves eye dryness and eye strains without drugs. It helps users use their natural tears to moisturize their eyes, with effects lasting up to 24 hours. This is useful for contact lens users during the day and when removing lenses. The device also provides ocular relaxation. It alleviates eye strain from prolonged screen time, which simple eye exercises cannot address.