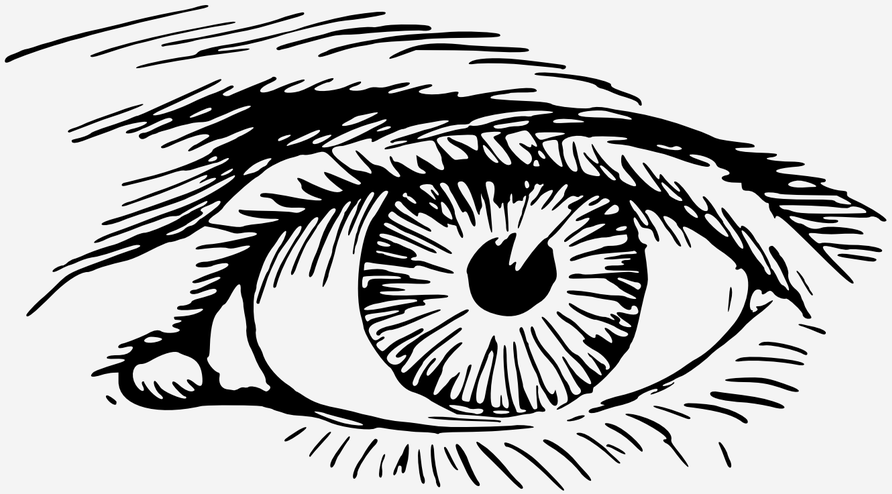
InnoWizards



INNOVATIVE DEVICE FOR OPTIMIZING GLAUCOMA EYE DROP APPLICATION

Revolutionizing Glaucoma Treatment through Accurate Dosing and Enhanced Patient Comfort

Glaucoma: The Silent Thief of Sight!

- Glaucoma is a group of eye conditions that damage the optic nerve, which is crucial for good vision.
- This damage is often caused by abnormally high pressure in eye, but it can occur even with normal eye pressure

Life with Glaucoma: Challenges and Changes

Vision Loss:

- PERIPHERAL VISSION: Glaucoma often starts with the loss of peripheral(side) vision, which can progress to tunnel vision if untreated.
- CENTRAL VISION: In advanced stages,it can also affect central vision, making it difficult to see details or recognize faces.

Limitations of Traditional Eye Drop Applicators

Medication Wastage

Traditional eye drop applicators often dispense larger-than-required drops, leading to excess medication that spills out of the eye.

Inaccurate Dosing

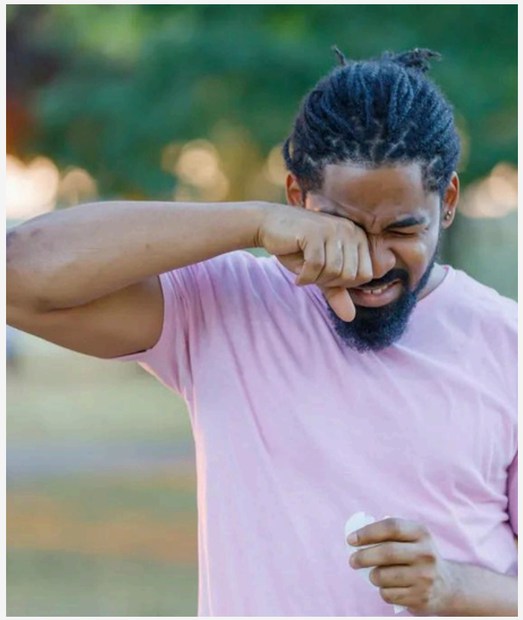
It's challenging for patients to apply the correct dosage consistently with current applicators.

Patient Discomfort

Patients often report discomfort while applying eye drops, such as irritation or difficulty aiming the drops into their eyes.

Poor Patient Adherence

Non-compliance in applying eye drops is a significant issue in glaucoma treatment

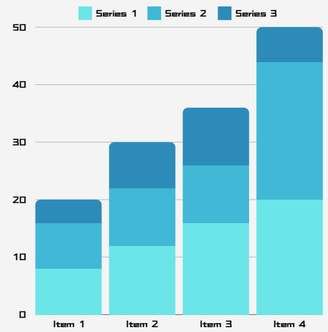


High Treatment Costs

The combined issues of wastage and non-adherence increase the overall costs for both patients and healthcare providers.

Statistic Data

Studies suggest that nearly 50% of the eye drops applied are wasted due to spillage,increases the overall cost of treatment and reduces the efficacy of the medication.



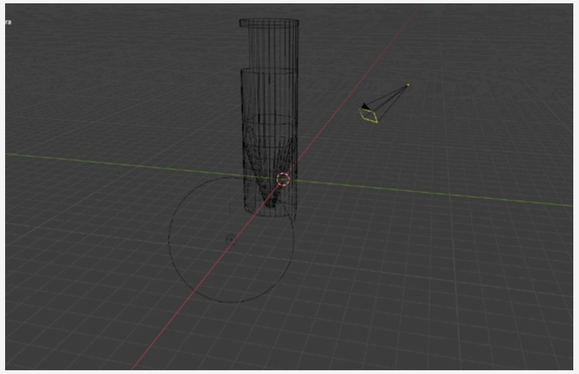
30% of patients fail to administer eye drops correctly due to hand tremors, poor vision, or difficulty squeezing the bottle.

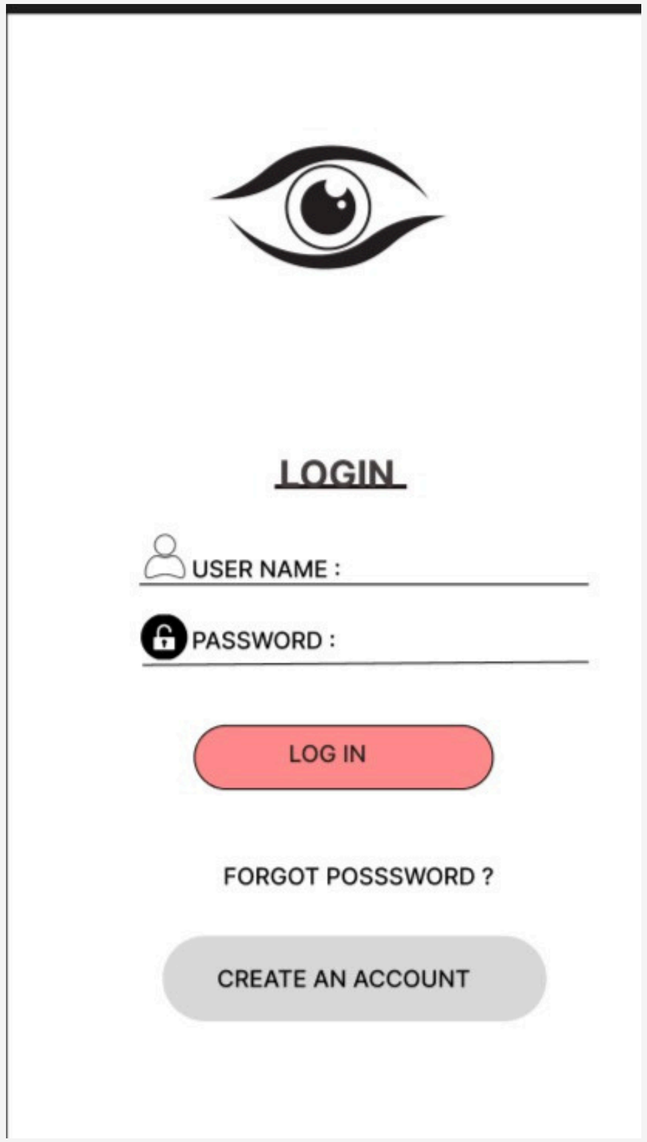
It’s estimated that up to 80% of patients do not follow their prescribed treatment regimen correctly.

OUR SOLUTION

Advanced Eye Drop Applicator for Glaucoma

- Controlled Dosing
- Anti-Overdose Mechanism with beep sound
- Removable and Washable Eye Holder
- Prescription-Driven Dosing Alerts via Notifications
- Remote Monitoring of Patient Details





Technical Design and Functionality

Bluetooth Transmitter

Connects the app and device for real-time dosage control.

Button

Press to dispense the exact amount of drops set in the app

Pressure Sensor (IDP)

Ensures accurate and consisten drop delivery

Burglar Alarm

Prevents overdosing by producing beep sound

Notifications

App sends reminders based on the doctor’s prescription.

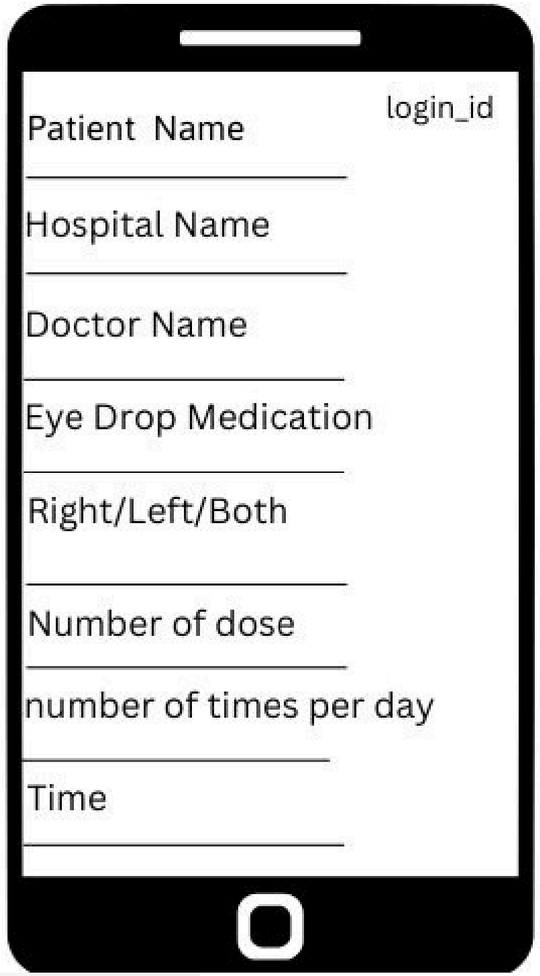
Remote Monitoring

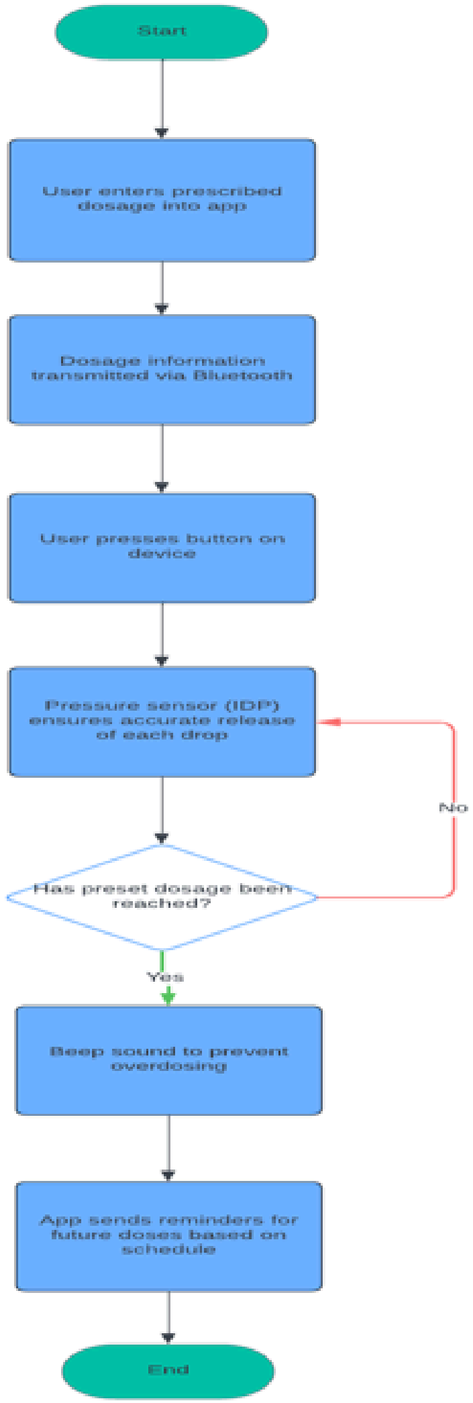
Family can track patient details via the app.

Removable Eye Holder

Washable and reusable for hygiene

Flowchart


login_id
Patient Name
Hospital Name
Doctor Name
Eye Drop Medication
Right/Left/Both
Number of dose
number of times per day
Time


Start
User enters prescribed dosage into app
Dosage information transmitted via Bluetooth
User presses button on device
Pressure sensor (IDP) ensures accurate release of each drop
Has preset dosage been reached?
No
Yes
Beep sound to prevent overdosing
App sends reminders for future doses based on schedule
End

Advantages of the Device in Clinical Practice

Improving Adherence

- Automated dosing ensures accurate medication delivery.
- Reminders and remote monitoring promote consistent usage.

Reducing Costs

- Minimizes medication wastage through precise dispensing.
- Reduces the need for frequent doctor visits due to better control.

Enhancing Treatment Outcomes

- Accurate dosing improves long-term management of glaucoma.
- Family and caregivers can monitor treatment remotely, enhancing patient care.

Revolutionizing Glaucoma Care: A Scalable and Patient-Centered Business Model

Revenue Model:

Device Sales: Revenue from selling the eye drop applicator device.
App Subscription: Monthly or annual subscriptions for advanced features like remote monitoring, dosage alerts, and data analytics for family and caregivers.
Consumables: Sales of replaceable or washable eye holders and other related accessories.

Target Market

Primary Market: Glaucoma patients requiring daily medication.
Secondary Market: Healthcare providers, hospitals, and pharmacies.
Caregivers: Family members managing treatment remotely.

Value Proposition

For Patients: Accurate dosing, reduced wastage, improved adherence, and enhanced convenience.
For Healthcare Providers: Better patient compliance, remote monitoring, and reduced treatment costs.
For Caregivers: Peace of mind with real-time patient data and notifications.

Scalability

- Expand product offering to other chronic eye conditions.
- Potential for integration with healthcare management platforms and insurance companies.

Conclusion

In summary, our innovative eye drop dispensing device addresses critical challenges in glaucoma treatment, such as medication wastage and patient adherence. By integrating advanced technology like Bluetooth connectivity, precise dosing mechanisms, and remote monitoring, we enhance patient outcomes while reducing healthcare costs. Our scalable business model not only targets individual patients but also engages healthcare providers and caregivers, ensuring a comprehensive approach to managing glaucoma. This solution paves the way for improved quality of life for patients and represents a significant advancement in ocular healthcare.