

## Lucyd in Brief



Simulated user interface for Lucyd Lens, "Shop Mode."

Lucyd is developing augmented reality smartglasses and a blockchain app store to power them. The purpose of our token generation event (TGE) is to raise the funding needed to develop a pre-production prototype of Lucyd Lens smartglasses, as well as to establish the Lucyd Lab blockchain.



We believe Lucyd Lens is possible due to our exclusive licenses to 13 revolutionary optics patents from the University of Central Florida, and our team of leading AR and optics scientists. We believe that the AR hardware/software platform we are building should grow rapidly with the Lucyd Lab blockchain, which will make it easy to conduct in-Lens P2P transactions, and for the global app developer community to create AR content. The Lab is powered by the LCD token, which organically drives user and developer engagement with our AR platform.. In short, Lucyd is creating a new AR smartglasses platform, where anyone can swiftly develop, share and experience AR content with our



ergonomic smartglasses.

### ***Disruptive Hardware Tech***

The key to giving Lucyd Lens mass appeal is ergonomics. Ergonomics is the science of making products better fit their users. A central goal of ergonomics is a transparent interface between users and products. For AR smartglasses, this is both literally and figuratively necessary. To build ergonomically-correct smartglasses, new optics technology is needed to enable compatibility with prescription lenses, reduce bulkiness, weight and power consumption, and increase EFV (enhanced field of view), which are the most significant issues preventing mainstream use of AR displays. Lucyd tech addresses these issues, and our goal is that Lucyd Lens could be used for comfortable, all-day wear by everyone.

Our initial software strategy is to cast a user's smartphone interface and into an expanded AR format in the Lens. After this, we are planning a native AR operating system for all functions, run from the Lucyd smartphone companion app. This will enable the AR blockchain ecosystem To accelerate the development of our AR platform, we will encourage developer engagement with the LCD token. Initially, we will seek to form strategic alliances with a few select AR app development teams to feature their software on early versions of Lucyd Lens.

We have [evaluated](#) the IP and believe it can be made into an innovative product, with several firsts for head-mounted AR displays:

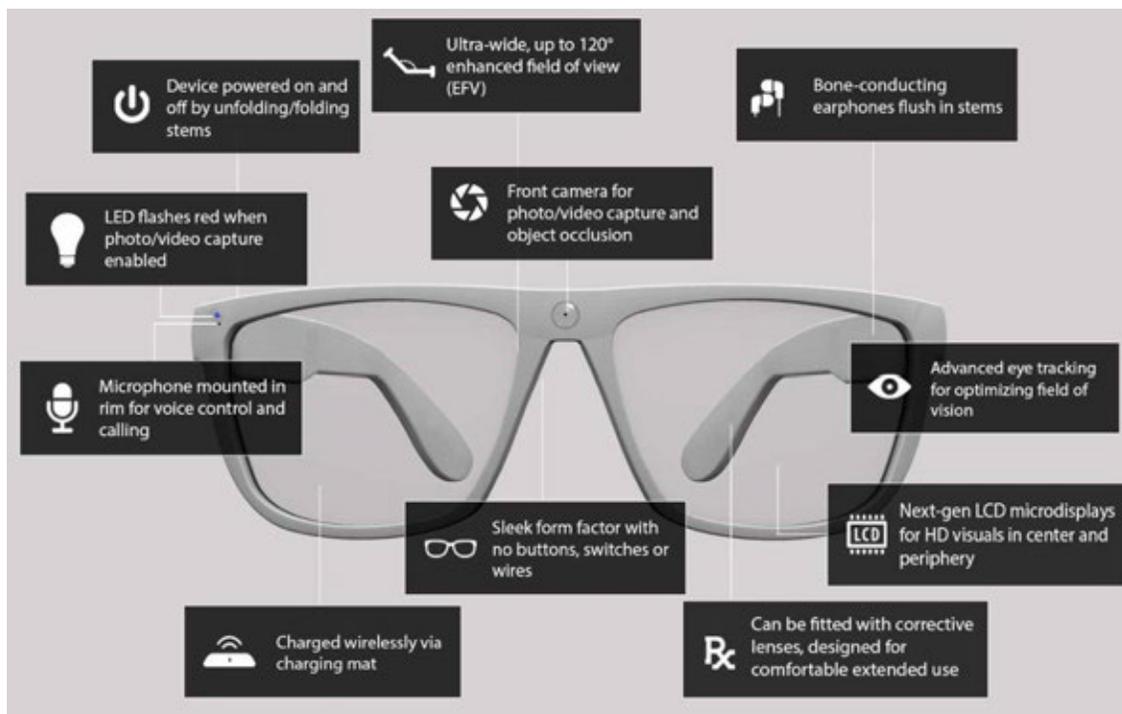
- First to miniaturize the optics and electronics for compact, lightweight projection in a head-mounted display. This allows Lucyd Lens to be the first smartglasses that look and feel like regular glasses, potentially replacing traditional glasses for many that wear them.
- First full integration of eye tracking in HMDs, allowing for ocular cursor control and real-time optimization of EFV.
- First spatially aware smartglasses with enhanced object occlusion, allowing AR objects in the Lens to meld smoothly with the real world.
- First freeform optics system allowing for off-axis virtual objects and a high-depth AR interface.
- First integration of binocular, flush HD micro-displays. No protruding elements, low eye strain and discreet.
- First smartglasses with highly modular controls, including finger tracking, voice control and eye tracking, all of which can be used to instantly switch on and off the AR interface..
- First smartglasses with low light leakage and high spatial resolution, for solid-seeming AR objects.
- First smartglasses that accommodate prescription lenses, for comfortable all-day wear by everyone.
- First smartglasses with no buttons, switches or wires, for a sleek look. Lucyd Lens will also charge wirelessly, for a fully next-gen experience.



- First smartglasses with an ultra-wide EFV, which we believe will be **larger than currently available AR displays**.

USPTO Link	US Patent Number	Title
<a href="#">Patent 1</a>	6,731,434	Compact Lens Assembly for the Teleportal Augmented Reality System
<a href="#">Patent 2</a>	6,804,066	Compact Lens Assembly for the Teleportal Augmented Reality System (CIP)
<a href="#">Patent 3</a>	6,927,694	Algorithm for monitoring head/eye motion for driver alertness with one camera
<a href="#">Patent 4</a>	6,963,454	Head-mounted Display by Integration of Phase-Conjugate Material
<a href="#">Patent 5</a>	6,999,239	Head Mounted Display by Integration of Phase Conjugate Material DIV
<a href="#">Patent 6</a>	7,009,773	Compact Microlenslet Arrays Imager
<a href="#">Patent 7</a>	7,088,457	Iterative Least-Squares Wavefront estimation for general pupil shapes
<a href="#">Patent 8</a>	7,119,965	Head Mounted Projection Display with a Wide Field of View
<a href="#">Patent 9</a>	7,499,217	Imaging System for Eyeglass-Based Display Devices
<a href="#">Patent 10</a>	7,522,344	Projection based Head Mounted Display with Eye-Tracking Capabilities
<a href="#">Patent 11</a>	7,639,208	Compact Optical See-Through Head-Mounted Display with Occlusion Support
<a href="#">Patent 12</a>	7,843,642	Systems and Methods for Providing Compact Illumination in Head Mounted Displays
<a href="#">Patent 13</a>	7,969,657	Imaging Systems for Eyeglass-Based Display Devices

The exclusive licenses to the patent portfolio is for the life of the IP, which extends to 2022-2028 depending on the individual patent expiration dates.



*A simulation of Lucyd Lens. Actual beta Lens features and form may vary.*



For more info on Lucyd's hardware and potential impact on the AR industry, please see the [scientific review of Lucyd tech.](#)

### ***Lucyd Lab AR Blockchain***

Lucyd Lab has several functions, centered on the LCD token:

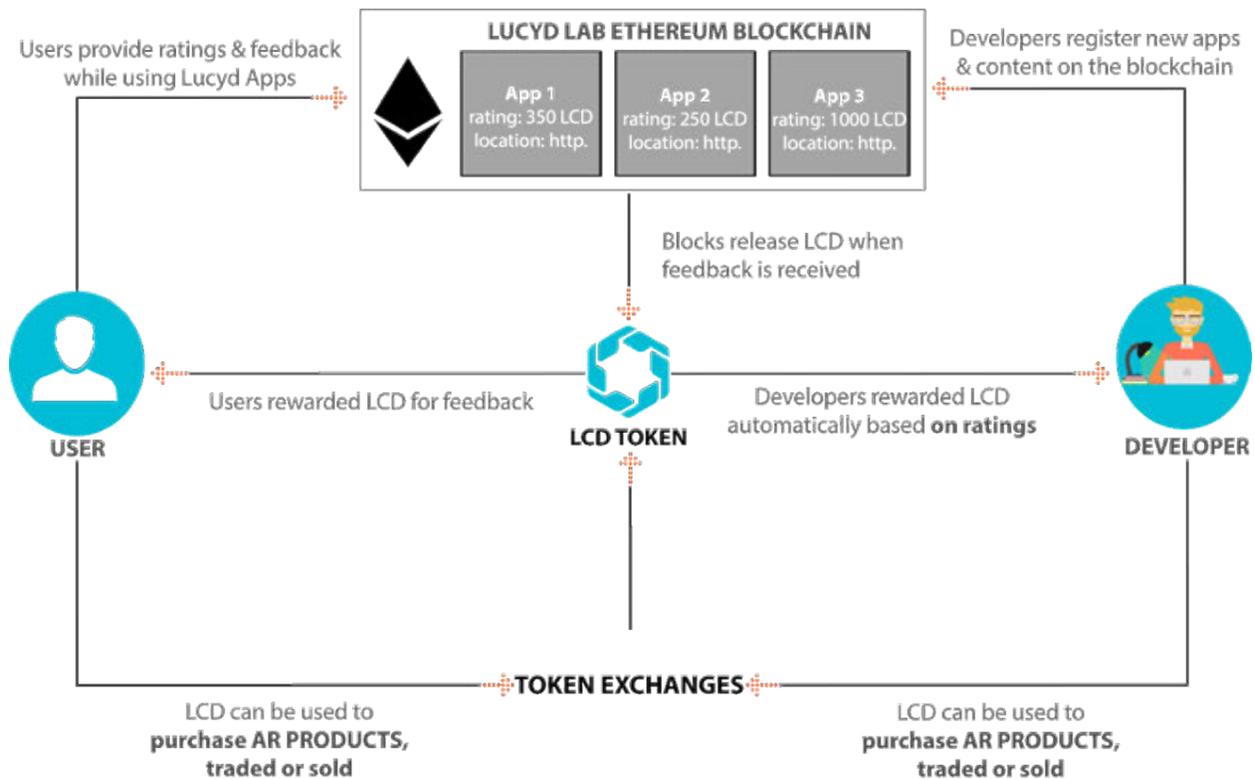
1. Developers get LCD based on their community impact. The more popular your AR-native apps and media are, the more LCD will be released to you from the blockchain, atop regular app revenue. While Lens is still dependent on smartphones, Lens-native apps and media will be hosted on the Lucyd iOS/Android companion app.
2. Users can get LCD for participating in betas, ads, bug reports, ratings, reviews and even during normal use of apps, such as referring new users or completing certain achievements.
3. LCD can be natively integrated into Lucyd apps, allowing for instant in-app purchases and participation rewards without requiring signup or financial information. E.g., a game that integrates your LCD wallet for its currency, selling in-app purchases in LCD, and giving small LCD rewards for completing objectives.
4. LCD can purchase AR hardware and content from the Lucyd store in-Lens, or be cashed out on token exchanges.
5. LCD will be instantly transferable in-Lens among the Lucyd community, for extremely easy, vocally-initiated transactions.
6. LCD decentralizes our ecosystem, allowing the Lens experience to be untethered from existing currencies, accounts and financial networks.

We are planning to release Lucyd Lens prototype in early 2019. The first 500 crowdfund contributors to get 5,000 LCD will have one of the first pairs automatically reserved. Simply go to <https://lucyd.co/> to purchase the LCD token, which we are using to crowdfund the prototype development of our next-gen smartglasses.

Total LCD tokens created: 100M. LCD tokens available during sale: 50M. Fundraising goal: US \$10M with token price 1 LCD = US \$0.25. No more LCD tokens will be issued after completion of this sale and unsold tokens will be burned. Management tokens are locked up for 12 months post end of sale. Lucyd offers up to 35% free LCD tokens during the sale and a 5% referral bonus. Our token generation event ends on February 28<sup>th</sup>, 2018, or when the pool of LCD is depleted. For more details, please visit <https://lucyd.co/>

# lucyd™

## LUCYD LAB AR Blockchain



### ***The Team***

Lucyd has assembled a team of experts in optics, AR, app development and cryptocurrency. Our science advisors are recognized innovators in their fields. Overall, the Lucyd team forms a solid, synergistic foundation for our potential success. We count among our staff and science board seven Ph.D.'s in relevant verticals.

Dr. Clifford Gross, CEO & Commercialization Lead, is an experienced executive and entrepreneur. Cliff is CEO of Tekcapital plc (LON: TEK) the UK IP Investment company that established Lucyd. Cliff has transferred to market many university technologies and has, founded three companies, all of which subsequently became listed and is a named inventor on 19 issued patents from his research.

Konrad Dabrowski (CPA), Finance Lead is one of our cofounders and brings 8 years of experience with Deloitte as a financial auditor. Konrad will be responsible for accurate financial reporting, and governance matters including semi-annual project progress report to be reviewed by third-party auditors and released to token holders and the market.

Eric Cohen is a Lucyd cofounder, and an experienced web & app architect. He has designed numerous apps and a vast amount of high-quality web content. He is leading the development of Lucyd native apps, and the front-end of our AR app blockchain.



Harrison Gross is a Lucyd cofounder and lead architect of the Lucyd Lens user interface. He oversees all published content that Lucyd produces for its following, including the Lucyd.co site & the whitepaper. His writing and creative abilities are fundamental to public perception of Lucyd. Harrison is a graduate of Columbia University.

The Optics team is led by Dr. Mike Kayat, who is a physicist and a business development executive with 20 years of experience in development and marketing in advanced optics.

Jose Enrique Hernandez is the Blockchain Lead for Lucyd, and has extensive experience in the cryptocurrency, mining servers and Blockchain software spaces. He oversees the core of the Lucyd Lab blockchain and the mechanics of the LCD token sale.

### **Our Science Advisors**

Professor Jannick Rolland is an optics expert and named inventor on 12 of the 13 patents exclusively licensed by Lucyd. Professor Rolland is the Director of the NSF Center for Freeform Optics & the R.E. Hopkins Center at U. of Rochester

Professor Yiorgos Kostoulas, Ph.D., is an optics expert and Associate Professor at the Division of General Engineering at Vanderbilt University School of Engineering.

Leo Baldwin, MS, is an optics expert and works at Amazon Computer Vision Group, and previously served as president of Functional Photonics, principal engineer at Amazon Go and fellow at GoPro.

Mikhail Gutin, Ph.D. is an optics expert and Founder and President of Applied Science Innovations, Inc. API conducts applied research and development in optics and imaging. Dr. Gutin has over 20 years of experience in many areas of optics, with an extensive record of patents and publications, and the R&D 100 Award by R&D Magazine.

Donna Waters is an Optics Expert with 20 years of experience in the research and development of optical instruments and devices. As an expert with Proof of Concept Optical Engineering, LLC, she has designed optics for a wide variety of AR and VR prototypes, including diffractive lenses and illumination systems for holographic waveguides.

Maribeth Gandy Coleman, Ph.D., is an expert in wearable computing & AR. She serves as a Principal Research Scientist and Director of the Interactive Media Technology Center at the Georgia Institute of Technology.

Professor Hao Li, Ph.D., is a Lucyd science advisor, and a well-recognized AR expert. His work involves dynamic shape reconstruction, real-time facial and body performance capture, 3D hair acquisition and garment digitalization.

To learn more about our team please visit <https://lucyd.co>. ***The Market***

According to Greenlight Insights, the AR market is forecasted to reach approximately \$36.4 billion by 2023. Following the usual early enthusiasm, AR technology platforms are likely to move toward mainstream adoption in the next few years. We believe that one of the key drivers will be the availability of reasonably priced, hands-free AR display in the



form of lightweight, stylistic smartglasses.

The size, weight and comfort of AR glasses are important for mainstream adoption. Market leaders will need to produce AR eyewear formats that are small, lightweight and have smooth optics.. Advanced features like eye tracking and the ability to use traditional lenses in a range of styles combined with high resolution images will be highly desirable. Lucyd's IP addresses all of these features. In addition, we will address the industrial design of the smartglasses to insure they look natural and stylish, with high consumer acceptance.

At Lucyd we believe our token event is an atypically well-grounded project, given our IP tech advantage, our blockchain app ecosystem, our experienced team, and our rigorous governance. LCD tokens enable a reservation for a beta pair of our smartglasses at a discount price, and will be tradeable on token exchanges. We are also running a 5% bonus referral program at [lcd.lucyd.co](http://lcd.lucyd.co) to thank you for sharing our mission with others... Help us make the world a bit more Lucyd!

To learn more or get in touch, please visit:

[Website](#)

[LCD wallet](#)

[Telegram](#)

[Facebook](#)

[Twitter](#)

[Youtube](#)