Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

AEYE, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

3714 (Primary Standard Industrial Classification Code Number) 37-1827430 (I.R.S. Employer

Identification No.)

One Park Place, Suite 200 Dublin, CA 94568 (925) 400-4366

(Address, including zip code, and telephone number, including area code, of principal executive offices)

Blair LaCorte Chief Executive Officer One Park Place, Suite 200 Dublin, CA 94568 (925) 400-4366

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Chris Forrester Yian Huang Shearman & Sterling LLP 1460 El Camino Real, Floor 2 Menlo Park, CA 94025 Tel: (650) 838-3600

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective, as determined by the Selling Stockholders.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. \Box

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. \Box

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. \Box

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer		Accelerated filer	
Non-accelerated filer	\boxtimes	Smaller reporting company	\times
		Emerging growth company	\mathbf{X}

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting offers to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to Completion, dated October 19, 2022

PROSPECTUS

AEYE, INC.

Up to 32,157,892 Shares of Common Stock Offered by the Selling Stockholders

This prospectus relates to the resale, from time to time, of up to 32,157,892 shares (the "Shares") of our common stock, par value \$0.0001 per share ("Common Stock"), by the selling stockholders (the "Selling Stockholders") identified in this prospectus under the section "Selling Stockholders" (the "Offering"). The Shares covered by this prospectus include (i) 40,000 shares of Common Stock held by certain Selling Stockholders and (ii) shares of Common Stock issuable pursuant to a securities purchase agreement the Company entered into with 3i, LP, a Selling Stockholder, on September 15, 2022 (the "Securities Purchase Agreement"), which consist of: (a) up to 30,367,892 shares of Common Stock that are issuable upon conversion of a convertible note in the original principal amount of \$10,500,000 (the "Note" and such financing, the "Note Offering") purchased by 3i, LP and (b) 1,750,000 shares of Common stock issuable upon exercise of a warrant to purchase Common Stock (the "Warrant") held by 3i, LP. We will not receive any proceeds from the sale of the Shares by the Selling Stockholders under this prospectus. We will, however, receive proceeds from any portion of the Warrant that is exercised through the payment of the exercise price in cash. The Selling Stockholders will bear all commissions and discounts, if any, attributable to the sale of the Shares. See "*Private Placement of the Note and the Warrant*."

We are registering the offer and resale of the Shares held by 3i, LP to satisfy the registration rights 3i, LP received in connection with the issuance of the Note and the Warrant.

The Selling Stockholders may sell, transfer or otherwise dispose of any or all of the Shares offered by this prospectus from time to time on The Nasdaq Capital Market or any other stock exchange, market, or trading facility on which the shares are traded, or in private transactions. Sales of the Shares by the Selling Stockholders may occur at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The Selling Stockholders may sell Shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders, the purchasers of the Shares, or both. If required, the number of Shares to be sold, the public offering price of those Shares, the names of any underwriters, broker-dealers or agents and any applicable commission or discount will be included in a supplement to this prospectus, called a prospectus supplement. See the disclosure under the heading *"Plan of Distribution"* elsewhere in this prospectus for more information about how the Selling Stockholders may sell or otherwise dispose of its Shares hereunder.

You should read this prospectus, the applicable prospectus supplement and any related free writing prospectus carefully, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

We are an "emerging growth company" as defined in Section 2(a) of the Securities Act, and are subject to reduced public company reporting requirements. This prospectus complies with the requirements that apply to an issuer that is an emerging growth company.

Our Common Stock is listed on The Nasdaq Stock Market LLC ("Nasdaq") under the symbols "LIDR". On October 18, 2022, the closing price of our Common Stock was \$0.85 per share.

Our business and investment in our Common Stock involve significant risks. These risks are described in the section titled "<u>Risk Factors</u>" beginning on page 14 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under the shelf registration process, the Selling Stockholders may, from time to time, offer and sell the shares described in this prospectus in one or more offerings. Information about the Selling Stockholders may change over time. We will not receive any of the proceeds from the sale of our Common Stock by the Selling Stockholders under this prospectus, although we will receive proceeds from any portion of the Warrant that is exercised through the payment of the exercise price in cash.

We may also file a prospectus supplement or post-effective amendment to the registration statement of which this prospectus forms a part that may contain material information relating to these offerings. The prospectus supplement or post-effective amendment may also add, update, or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or post-effective amendment, you should rely on the prospectus supplement or post-effective amendment, as applicable. Before purchasing any securities, you should carefully read this prospectus, any post-effective amendment, and any applicable prospectus supplement, together with the additional information described under the heading *"Where You Can Find More Information"* and *"Information Incorporated by Reference."*

Neither we nor the Selling Stockholders have authorized anyone to provide you with any information or to make any representations other than those contained in or incorporated by reference into this prospectus, any post-effective amendment, or any applicable prospectus supplement prepared by or on behalf of us or to which we have referred you. We and the Selling Stockholders take no responsibility for and can provide no assurance as to the reliability of any other information that others may give you. The Selling Stockholders will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, any post-effective amendment and any applicable prospectus supplement to this prospectus of the date on its respective cover. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus contains, and any post-effective amendment or any prospectus supplement may contain, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. We believe this information included in or assumptions relied on in these third-party publications. In addition, the market and industry data and forecasts that may be included in or incorporated by reference into this prospectus, any post-effective amendment or any prospectus supplement may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "*Risk Factors*" contained in this prospectus, any post-effective amendment, the applicable prospectus supplement and otherwise incorporated by reference herein. Accordingly, investors should not place undue reliance on this information.

We own or have rights to trademarks, trade names and service marks that we use in connection with the operation of our business. In addition, our name, logos and website name and address are our trademarks or service marks. Solely for convenience, in some cases, the trademarks, trade names and service marks referred to in this prospectus are listed without the applicable $^{(B)}$, TM and SM symbols, but we will assert, to the fullest extent under applicable law, our rights to these trademarks, trade names and service marks. Other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

On February 17, 2021, AEye Technologies, Inc., then known as AEye, Inc. ("AEye Technologies"), entered into the Agreement and Plan of Merger (the "Merger Agreement") with CF Finance Acquisition Corp. III, a Delaware corporation ("CF III"), now known as AEye, Inc., and Meliora Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of CF III ("Merger Sub"). Based on CF III's business activities, it was a "shell company" as defined under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). On August 16, 2021 (the "Closing Date"), CF III closed the business combination (the "Merger," and together with the other transactions contemplated by the Merger Agreement, the "Transactions") pursuant to the Merger Agreement, and Merger Sub was merged with and into AEye Technologies with AEye Technologies surviving the merger as a wholly owned subsidiary of CF III. On the Closing Date, and in connection with the closing of the Transactions (the "Closing"), CF III changed its name to AEye, Inc. Unless otherwise stated or unless the context otherwise requires, the terms "we," "us," "our", "AEye", "Company", and "post-combination entity" refer to AEye, Inc. and its subsidiaries following the consummation of the Merger or to AEye Technologies and its subsidiaries prior to the consummation of the Merger.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Exchange Act. All statements other than statements of historical facts contained in this prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein, including statements concerning possible or assumed future actions, business strategies, events or results of operations, and any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions. These forward-looking statements are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. The forward-looking statements in this prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein speak only as of the date of this prospectus, any accompanying prospectus supplement, and the documents incorporated by reference herein, as applicable. These forward-looking statements are subject to a number of important factors that could cause actual results to differ materially from those in the forward-looking statements, including the risks, uncertainties and assumptions described under the section in this prospectus titled "*Risk Factors*" or discussed in greater detail in the documents incorporated by reference herein, without limitation, the following:

- changes in our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects and plans;
- our product development timeline and expected start of production;
- the implementation, market acceptance and success of our business model;
- our ability to scale in a cost-effective manner;
- · developments and projections relating to our competitors and industry;
- the impact of health epidemics, including the COVID-19 pandemic, on our business and the actions we may take in response thereto;
- the effect of global events, such as the Russia's invasion of Ukraine, on the U.S. and global economies, our business, our employees, results of operations, financial condition, demand for our products and partners' businesses;
- our expectations regarding our ability to obtain and maintain intellectual property protection and not infringe on the rights of others;
- expectations regarding the time during which we will be an emerging growth company under the JOBS Act;
- our future capital requirements and sources and uses of cash;
- our ability to obtain funding for our operations;
- our business, expansion plans and opportunities; and
- the outcome of any known and unknown litigation and regulatory proceedings.

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Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur, and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. Some of these risks and uncertainties may in the future be amplified by the COVID-19 pandemic. Additionally, new risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. As a result of these factors, the forward-looking statements in this prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein may not prove to be accurate. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances, or otherwise.

You should read this prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

PROSPECTUS SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in shares of our Common Stock. For a more complete understanding of our Company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus, including the information incorporated by reference in this prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information under the heading "Risk Factors" in this prospectus on page 14 and in the documents incorporated by reference in this prospectus.

Overview

AEye is a provider of high-performance, active lidar systems technology for vehicle autonomy, advanced driver-assistance systems, ("ADAS"), and robotic vision applications. With a sophisticated workforce of leaders and researchers, AEye has developed an artificial intelligence technology that enables adaptive "intelligent sensing," differentiating AEye in the marketplace from its competition. Our proprietary software-definable 4SightTM Intelligent Sensing Platform combines solid-state active lidar, an optionally fused low-light HD camera, and integrated deterministic artificial intelligence to capture more intelligent information with less data, enabling faster, more accurate, and more reliable perception of the surroundings.

AEye was founded in 2013 by Luis Dussan, AEye's Chief Technology Officer, to create a deterministic AI-driven sensing system that performs better than the human eye and visual cortex. Mr. Dussan's experience developing mission-critical targeting systems for fighter jets and ground troops on behalf of the U.S. military provided him with the background to develop a differentiated approach to visual sensing. While traditional sensing systems passively collect data, our active 4SightTM Intelligent Sensing Platform leverages principles from automated targeting systems and biomimicry to scan the environment, while intelligently focusing on what matters in order to enable safer, smarter, and faster decisions in complex scenarios. From its inception, AEye's culture drew from esteemed scientists and electro-optics engineers from the National Aeronautics and Space Administration, or NASA, Lockheed Martin Corporation, Northrop Grumman Corporation, the U.S. Air Force, and the Defense Advanced Research Projects Agency, or DARPA, to create the highest performing sensing and perception system for the most challenging situations, ensuring the highest levels of safety for autonomous driving.

As a result, our adaptive lidar is designed to enable higher levels of autonomy and functionality — SAE Levels 2 through 5 — with the goal of optimizing performance, power, and reducing cost. Our 4SightTM Intelligent Sensing Platform is software-definable, and network-optimized, and leverages deterministic artificial intelligence at the edge. We have made substantial investments in our R&D processes and deliver value to our customers through a combination of sales and direct channels. We perform the majority of our R&D activities in our 56,549 square foot corporate headquarters in Dublin, California. Our modular design facilitates product hardware updates as technologies evolve, and its small size and modest heat dissipation enable very flexible placement options on the interior or exterior of a vehicle. 4Sight also leverages a common architecture to create application-specific products across the Automotive, Mobility and Industrial markets.

We expect to enable accelerated adoption of lidar across many markets and have partnered with leading Tier 1 automobile suppliers to achieve this mission. The main markets for lidar, including Automotive, Industrial, and Mobility, are projected to see significant growth in both the near and long term. We believe this expected growth will allow AEye to achieve greater market share as well as pursue specialization opportunities like highway autonomous driving applications that benefit from our products. We expect that lidar will be a required sensing solution across many end markets, and we intend to be the leading solutions provider in these spaces.

Background

We were originally known as CF III. On August 16, 2021, CF III consummated the Merger with AEye Technologies pursuant to the Merger Agreement. In connection with the Closing of the Merger, CF III changed its name to AEye, Inc. The Merger was accounted for as a reverse recapitalization in accordance with GAAP. Under this method of accounting, CF III was treated as the "accounting acquiree" and AEye Technologies as the "accounting acquirer" for financial reporting purposes.

At the effective time of the Merger (the "Effective Time"), by virtue of the Merger and without any action on the part of CF III, Merger Sub, AEye Technologies or the holders of any of our or AEye Technologies' securities:

- Merger Sub merged with and into AEye Technologies, with AEye Technologies surviving as a wholly-owned subsidiary of the Company;
- each share of common stock of Merger Sub issued and outstanding immediately prior to the Effective Time was automatically
 converted into an equal number of shares of common stock of validly issued, fully paid and nonassessable shares of common stock
 of AEye Technologies, which shares constitute the only outstanding shares of capital stock of AEye Technologies held by us;
- all issued and outstanding shares of AEye Technologies' capital stock (other than shares held by us, CF Finance Holdings III, LLC (the "Sponsor") or held in treasury) converted into an aggregate of 122,509,667 shares of Common Stock.
- all shares of AEye Technologies' capital stock held in treasury were canceled without any conversion thereof;
- all of the outstanding options of AEye Technologies to acquire AEye Technologies' common stock were assumed by the Company and converted into options to acquire an aggregate of 29,415,292 shares of Common Stock;
- all of the outstanding restricted stock units ("RSUs") of AEye Technologies to acquire AEye Technologies' common stock were assumed by the Company and converted into RSUs to acquire an aggregate of 1,724,283 shares of Common Stock;
- all of the 5,750,000 outstanding shares of CF III's Class B common stock, par value \$0.0001 per share, held by the Sponsor and the former independent directors of CF III converted into an aggregate of 5,750,000 shares of Common Stock;
- all of the 500,000 private placement units held by the Sponsor were separated, pursuant to their terms, into 500,000 shares of Common Stock and 166,666 Warrants; and
- all of the remaining outstanding Company units were separated, pursuant to their terms, into one share of Common Stock and one-third (1/3) of one Warrant (and CF III's units ceased trading on Nasdaq).

In connection with the execution of the Merger Agreement, CF III entered into subscription agreements with certain parties subscribing for shares of CF III's common stock, par value \$0.0001 per share ("CF III Common Stock," and such parties, the "Subscribers"), pursuant to which the Subscribers agreed to purchase, and CF III agreed to sell to the Subscribers, an aggregate of up to 22,500,000 shares of CF III Common Stock, for a purchase price of \$10.00 per share and at an aggregate purchase price of up to \$225 million. Immediately prior to the closing of the Merger, we issued and sold 22,000,000 shares of our Common Stock to the Subscribers for aggregate gross proceeds to us of \$220 million (the "PIPE Investment").

The rights of holders of our Common Stock are governed by our Second Amended and Restated Certificate of Incorporation (the "Amended Charter"), our Amended and Restated Bylaws (the "Amended Bylaws"), and the Delaware General Corporation Law (the "DGCL").

Corporate Information

CF III was incorporated in the State of Delaware in March 2016 for the purpose of effecting a transaction such as the Merger and completed its initial public offering (the "IPO") in November 2020. In August 2021, Merger Sub merged with and into AEye Technologies, with AEye Technologies surviving the merger as a wholly owned subsidiary of CF III. In connection with the Merger, we changed our name to AEye, Inc. Our principal executive offices are located at One Park Place, Suite 200, Dublin, CA 94568. Our telephone number is (925) 400-4366. Our website address is *www.aeye.ai*. Information contained on our website or connected thereto does not constitute part of, and is not incorporated by reference into, this prospectus or the registration statement of which it forms a part.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). We will remain an emerging growth company under the JOBS Act until the earliest of (a) the last day of our first fiscal year following the fifth anniversary of CF III's IPO, (b) the last date of our fiscal year in which we have total annual gross revenue of at least \$1.07 billion, (c) the date on which we are deemed to be a "large accelerated filer" under the rules of the SEC with at least \$700.0 million of outstanding securities held by non-affiliates, or (d) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the previous three years.

We are also a "smaller reporting company" as defined in the Securities and Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as the market value of our Common Stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than \$100.0 million during the most recently completed fiscal year and the market value of our Common Stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

As a result, the information in this prospectus, any accompanying prospectus supplement or the documents incorporated by reference herein that we provide to our investors in the future may be different than what you might receive from other public reporting companies.

Private Placement of the Note and the Warrant

On September 15, 2022, the Company entered into the Securities Purchase Agreement with 3i, LP. At the closing, the Company issued to 3i, LP the Note in the original principal amount of \$10,500,000 for a purchase price of \$10,000,000. In addition to the Note, 3i, LP received the Warrant to purchase an aggregate of 1,750,000 shares of Common Stock. Under the Securities Purchase Agreement, subject to the satisfaction of certain conditions specified therein, the Company also has the option, until March 15, 2024, to issue to 3i, LP, for a purchase price of \$10,000,000, an additional Note in the original principal amount of \$10,500,000 and an additional Warrant to purchase up to 1,750,000 shares of the Common Stock.

The Note has a term of eighteen months, an original issue discount of 4.76%, and an interest rate of 5.0% per annum. The Note is convertible into Common Stock at a per share conversion price equal to \$2.50, subject to certain adjustments provided in the Note (the "Conversion Price"). Pursuant to the Note, commencing on the date that is 90 days from the date of the first closing, and on the first trading day of each month thereafter (each, an "Installment Date") until the Note is fully redeemed, the Company is generally obligated to pay the holder of the Note an amount equal to the sum of (A) the lesser of (x) one-fifteenth of the initial principal amount under the Note and (y) the principal amount then outstanding under the Note as of such Installment Date, (B) any amounts accelerated pursuant to the terms of the Note and (C) the sum of any accrued and unpaid interest and late fees, if any, as of such Installment Date (the "Installment Amount"). The Company, if certain equity conditions are satisfied, may elect to pay all or part of the Installment Amount in shares of Common Stock based on a conversion price equal to the applicable conversion date. If the Company fails to satisfy certain equity conditions or at the election of the Company, the Company may redeem the Installment Amount in cash with a premium of five percent (5%).

The Warrant has an initial exercise price of \$3.50, a 40% premium to the Conversion Price, and is exercisable for four years following issuance. Subject to the terms and conditions of the Warrant, if (x) the VWAP (as defined in the Warrant) of the Common Stock exceeds \$4.00 for ten consecutive trading days (the "Forced Exercise Measuring Period"), (y) the average daily trading volume of the Common Stock on each trading day during the Forced Exercise Measuring Period exceeds \$5,000,000 and (z) there is an effective registration statement permitting the resale of the Common Stock underlying the Warrant, the Company has the right, within three trading days following such Forced Exercise Measuring Period, at its option, to require the holder of the Warrant to exercise all, but not less than all, of the then outstanding Warrant.

After deducting the original issue discount and the costs and expenses projected to be incurred in connection with the Note Offering, including to our exclusive placement agent in the Note Offering, the net proceeds (net of placement agent and legal fees) to us were approximately \$9,485,700, which proceeds are expected to be used for general corporate purposes.

The Company has agreed to register under the Securities Act the resale of the shares of Common Stock issuable upon conversion of the Note as well as the shares of Common Stock issuable upon the exercise of the Warrant pursuant to the Registration Rights Agreement, dated September 15, 2022, by and between the Company and 3i, LP.

The Securities Purchase Agreement, Registration Rights Agreement, Note and Warrant contain customary representations, warranties, conditions, and indemnification obligations of the parties.

THE OFFERING Shares of Common Stock offered by the Selling Stockholders⁽¹⁾ Up to 32,157,892 shares 160,868,645 shares (as of October 10, 2022) Shares of Common Stock outstanding prior to this offering⁽²⁾ Use of proceeds We will not receive any proceeds from the resale of the Shares by the Selling Stockholders in this offering. We will, however, receive proceeds from any portion of the Warrant that is exercised through the payment of the exercise price in cash. For additional information, refer to the section entitled "Use of Proceeds." Terms of this offering The Selling Stockholders may sell, transfer or otherwise dispose of any or all of the Shares offered by this prospectus from time to time on Nasdaq or any other stock exchange, market or trading facility on which the shares are traded, or in private transactions. The may be offered and sold or otherwise disposed of by the Selling Stockholders at fixed prices, market prices prevailing at the time of sale, prices related to prevailing market prices, or privately negotiated prices. See "Plan of Distribution." Risk factors Investing in our Common Stock involves a high degree of risk. You should carefully read the "Risk Factors" beginning on page 14 and the other information included or incorporated by reference in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our Common Stock. Nasdaq symbol for our Common Stock "LIDR"

(1) This amount consists of (i) 40,000 shares of Common Stock held by certain Selling Stockholders, (ii) 30,367,892 shares of Common Stock issuable upon conversion of the Note, which represents the maximum number of Shares issuable upon conversion of the Note, and (iii) 1,750,000 shares of Common Stock underlying the Warrant, which represents the maximum number of Shares issuable upon exercise of the Warrant.

(2) The number of shares of Common Stock to be outstanding excludes:

- 26,076,581 shares of Common Stock issuable upon the exercise of outstanding options granted under 2014 Plan or the 2016 Plan, with a weighted-average exercise price of \$0.50 per share;
- 9,096,189 shares of Common Stock available for future issuance under our 2021 Equity Incentive Plan;
- 13,423,002 shares of Common Stock underlying restricted stock units, or RSUs, granted pursuant to our 2016 Plan or 2021 Equity Incentive Plan;
- 7,833,322 shares of Common Stock issuable upon the exercise of outstanding public and private placement warrants to purchase Common Stock, with an exercise price of \$11.50 per share (out of a total of 7,833,332 warrants issued, of which 10 warrants have been exercised as of the date of this filing);
- 29,417,785 shares of Common Stock we may sell to Tumim Stone Capital LLC under that certain Common Stock Purchase Agreement, dated December 8, 2021, from time to time (out of a total of 30,562,785 purchase shares, of which 1,145,000 have been sold as of October 10, 2022); and
- 30,367,892 shares of Common Stock issuable upon conversion of the Note and 1,750,000 shares of Common Stock issuable upon the exercise of the Warrant.

RISK FACTORS

Investing in any of our Common Stock involves significant risks. Before you make a decision to buy our Common Stock, in addition to the risks and uncertainties discussed above under "*Cautionary Statement Concerning Forward-Looking Statements*," you should carefully consider the specific risks set forth under the heading "*Risk Factors*" under Item 1A of Part I of our Annual Report on Form 10-K filed with the SEC, any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and all other information contained or incorporated by reference to this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in any applicable prospectus supplement and any applicable free writing prospectus before acquiring any of such securities. If any of these risks actually occur, it may materially harm our business, financial condition, liquidity and results of operations. As a result, the market price of our securities could decline, and you could lose all or part of your investment. Additionally, the risks and uncertainties described in this prospectus, any prospectus supplement or any documents incorporated by reference herein are not the only risks and uncertainties that we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may become material and adversely affect our business. For more information, see "*Where You Can Find More Information*" and "*Information Incorporated by Reference*."

Risks Related to this Offering

The sale or availability for sale of shares issuable upon conversion of the Note or exercise of the Warrant may depress the price of our Common Stock and encourage short sales by third parties, which could further depress the price of our Common Stock.

To the extent that the purchaser of the Note sells shares of our Common Stock issued upon conversion of the Note or exercise of the Warrant, the market price of such shares may decrease due to the additional selling pressure in the market. In addition, the dilution from issuances of such shares may cause stockholders to sell their shares of our Common Stock, which could further contribute to any decline in the price of our Common Stock. Any downward pressure on the price of our Common Stock caused by the sale or potential sale of such shares could encourage short sales by third parties. Such sales could place downward pressure on the price of our Common Stock by increasing the number of shares of our Common Stock being sold, which could further contribute to any decline in the market price of our Common Stock.

USE OF PROCEEDS

All proceeds from the resale of the Shares offered by this prospectus will belong to the Selling Stockholders. We will not receive any proceeds from the resale of the Shares by the Selling Stockholders.

We will receive proceeds from any cash exercise of the Warrant in an amount equal to \$3.50 per exercised Warrant, subject to customary adjustment upon certain events as set forth in the Warrant. We expect to use the proceeds from the exercise of such Warrant, if any, for general corporate purposes. There is no assurance that the Warrant will ever be exercised for cash.

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PRIVATE PLACEMENT OF THE NOTE AND THE WARRANT

On September 15, 2022, the Company entered into the Securities Purchase Agreement with 3i, LP, a Selling Stockholder. At the first closing under the Securities Purchase Agreement, which occurred on September 15, 2022, the Company issued to 3i, LP the Note in the original principal amount of \$10,500,000 for a purchase price of \$10,000,000. In addition to the Note, 3i, LP received the Warrant to purchase an aggregate of 1,750,000 shares of Common Stock. Under the Securities Purchase Agreement, subject to the satisfaction of certain conditions specified therein, the Company also has the option, until March 15, 2024, to issue to 3i, LP, for a purchase price of \$10,000,000, an additional Note in the original principal amount of \$10,500,000 and an additional Warrant to purchase up to 1,750,000 shares of the Common Stock.

The Note has a term of eighteen months, an original issue discount of 4.76%, and an interest rate of 5.0% per annum. The Note is convertible into Common Stock at a per share conversion price equal to \$2.50, subject to certain adjustments provided in the Note (the "Conversion Price"). Pursuant to the Note, commencing on the date that is 90 days from the date of the first closing, and on the first trading day of each month thereafter (each, an "Installment Date") until the Note is fully redeemed, the Company is generally obligated to pay the holder of the Note an amount equal to the sum of (A) the lesser of (x) one-fifteenth of the initial principal amount under the Note and (y) the principal amount then outstanding under the Note as of such Installment Date, (B) any amounts accelerated pursuant to the terms of the Note and (C) the sum of any accrued and unpaid interest and late fees, if any, as of such Installment Date (the "Installment Amount"). The Company, if certain equity conditions are satisfied, may elect to pay all or part of the Installment Amount in shares of Common Stock based on a conversion price equal to the lower of (i) the Conversion Price and (ii) 95% of the lowest VWAP (as defined in the Note) in the five (5) trading days immediately prior to the applicable conversion date. If the Company fails to satisfy certain equity conditions or at the election of the Company may redeem the Installment Amount in cash with a premium of five percent (5%).

The Warrant has an initial exercise price of \$3.50 and is exercisable for four years following issuance. Subject to the terms and conditions of the Warrant, if (x) the VWAP (as defined in the Warrant) of the Common Stock exceeds \$4.00 for ten consecutive trading days (the "Forced Exercise Measuring Period"), (y) the average daily trading volume of the Common Stock on each trading day during the Forced Exercise Measuring Period exceeds \$5,000,000 and (z) there is an effective registration statement permitting the resale of the Common Stock underlying the Warrant, the Company has the right, within three trading days following such Forced Exercise Measuring Period, at its option, to require the holder of the Warrant to exercise all, but not less than all, of the then outstanding Warrant.

3i, LP agreed to restrict its ability to convert the Note and exercise the Warrant and receive shares of Common Stock such that the number of shares of Common Stock held by 3i, LP after such conversion or exercise does not exceed 9.99% of the then issued and outstanding shares of Common Stock (the "Beneficial Ownership Limitation").

Pursuant to the terms of a registration rights agreement entered into concurrently with the Securities Purchase Agreement (the "Registration Rights Agreement"), the Company agreed to file the registration statement on Form S-3 (or other appropriate form), of which this prospectus forms a part, providing for the resale by 3i, LP of the shares of Common Stock underlying the Note and the Warrant within 60 calendar days of the closing date.

After deducting the original issue discount and the costs and expenses projected to be incurred in connection with the Offering, the net proceeds (net of placement agent and legal fees) to us were approximately \$9,485,700, which proceeds are expected to be used for general corporate purposes.

The offer, sale and issuance of the Note and the Warrant pursuant to the Securities Purchase Agreement was made in reliance upon the exemptions contained in Section 4(a)(2) of the Securities Act and/or Rule 506 of Regulation D promulgated thereunder.

Any representations and warranties contained in the Securities Purchase Agreement, the Note, the Warrant, and the other agreements executed in connection therewith, were made by the parties to, and solely for the benefit of, the other in the context of all of the terms and conditions thereof and in the context of the specific relationship between the parties, and are not intended for investors and the public to obtain factual information about the current state of affairs of the parties.

The foregoing information is only a brief description of the material terms of the Securities Purchase Agreement, the Note, the Warrant, and the Registration Rights Agreement and does not purpose to be a complete description of the rights and obligations of the parties thereunder and, as such, is qualified by reference to the full text of the Securities Purchase Agreement, the Note, the Warrant and the Registration Rights Agreement, the forms of which are attached as Exhibits 10.1, 4.1, 4.2, and 10.2, respectively, to our Current Report on Form 8-K filed with the SEC on September 16, 2022, and are incorporated herein by reference.

SELLING STOCKHOLDERS

This prospectus relates to the resale by the Selling Stockholders identified in the table below, or by the future transferees, pledgees, assignees, distributees, donees or successors-in-interest of or from the Selling Stockholders, of the Common Stock (i) held by certain Selling Stockholders and (ii) issuable to 3i, LP pursuant to the terms of the Note and upon exercise of the Warrant. For additional information regarding the issuances of the Note and the Warrant, see "*Private Placement of the Note and the Warrant*" above. We are registering the Shares in order to permit the Selling Stockholders to offer the Shares for resale from time to time.

The table below lists the Selling Stockholders and other information regarding the beneficial ownership of our shares of Common Stock held by the Selling Stockholders. The second column lists the number of shares of Common Stock beneficially owned by the Selling Stockholders as of October 10, 2022, assuming the conversion of the Notes and the exercise of the Warrant held by the Selling Stockholders, if any, on that date, without regard to any limitations on exercises. The forth column lists the shares of Common Stock being offered by this prospectus by the Selling Stockholders.

In accordance with the terms of the Registration Rights Agreement entered into with 3i, LP, this prospectus generally covers the resale of the maximum number of shares of Common Stock issuable pursuant to the Note and the Warrant, determined as if the Note and the Warrant were converted or exercised, as applicable, in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, without regard to any limitations on conversion or exercise, as applicable, in the Note and the Warrant. The fifth column assumes the sale of all of the shares offered by the Selling Stockholders pursuant to this prospectus.

Under the terms of the Note and the Warrant, 3i, LP may not be issued Shares under the Note or the Warrant to the extent such issuance would cause 3i, LP, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock which would exceed 9.99% of our then outstanding Common Stock following such exercise. The number of shares in the second column does not reflect this limitation. The Selling Stockholders may sell all, some or none of their shares in this Offering. See *"Plan of Distribution."*

The following table presents information regarding the Selling Stockholders, is prepared based on information supplied to us by the Selling Stockholders, and reflects holdings as of October 10, 2022. Unless otherwise indicated below, none of the Selling Stockholders nor any of their affiliates has held a position or office, or had any other material relationship, with us or any of our predecessors or affiliates. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and Rule 13d-3 thereunder.

Name of Selling Stockholder ⁽¹⁾	Number of Shares of Common Stock Beneficially Owned Prior to Offering ⁽²⁾	Percentage of Common Stock Beneficially Owned Prior to Offering (3)(4)	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Beneficially Owned After Offering ⁽³⁾	Percentage of Common Stock Beneficially Owned After Offering (4)
3i, LP ⁽⁵⁾	32,131,892 ⁽⁶⁾	16.65%	32,117,892	14,000 ⁽⁷⁾	*
Robert J. Hochberg ⁽⁸⁾	20,000	*	20,000	0	—
Robert G. Sharp ⁽⁹⁾	20,000	*	20,000	0	—

*Less than 1%

(1) Information concerning named Selling Stockholders or future transferees, pledgees, assignees, distributees, donees or successors-in-interest of or from any such stockholder or others who later hold any Selling Stockholders' interests will be set forth in supplements to this prospectus, absent circumstances indicating that the change is material. In addition, post-effective amendments to the registration statement of which this prospectus forms a part will be filed to disclose any material changes to the plan of distribution from the description in the final prospectus.



- (2) Includes the maximum number of Shares issuable upon conversion of the Note and exercise of the Warrant, which shares are being registered by the registration statement of which this prospectus forms a part.
- (3) Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, securities that are currently convertible or exercisable into shares of our Common Stock, or convertible or exercisable into shares of our Common Stock within 60 days of October 10, 2022, are deemed outstanding. Such shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Amounts reported in the fifth column assumes that the Selling Stockholders will sell all of the Shares offered pursuant to this prospectus.
- (4) Based on 160,868,645 shares of Common Stock outstanding as of October 10, 2022.
- (5) The business address of 3i, LP is 140 Broadway, 38th Floor, New York, NY 10005. 3i, LP's principal business is that of a private investor. Maier Joshua Tarlow is the manager of 3i Management, LLC, the general partner of 3i, LP, and has sole voting control and investment discretion over securities beneficially owned directly or indirectly by 3i Management, LLC and 3i, LP. Mr. Tarlow disclaims beneficial ownership of the securities beneficially owned directly by 3i, LP and indirectly by 3i Management, LLC.
- (6) Represents 14,000 shares of Common Stock that we issued to Tumim Stone Capital LLC ("Tumim") pursuant to the Common Stock Purchase Agreement with Tumim (the "Purchase Agreement") and that have not been resold by Tumim as of October 10, 2022, and 32,117,892 shares of Common Stock issuable to 3i, LP upon conversion of the Note or exercise of the Warrant. 3i, LP is the sole member of Tumim.

On December 8, 2021, we entered into the Purchase Agreement, pursuant to which Tumim has committed to purchase up to \$125 million of Common Stock, at our direction from time to time after the date of this prospectus, subject to the satisfaction of the conditions in the Purchase Agreement. Also, we entered into a registration rights agreement with Tumim, pursuant to which pursuant to which we agreed to file with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act, the shares of our Common Stock that have been and may be issued to Tumim under the Purchase Agreement. Pursuant to the terms of the Purchase Agreement, at the time we signed the Purchase Agreement, we issued 302,634 shares of Common Stock to Tumim as consideration for its irrevocable commitment to purchase shares of our Common Stock under the Purchase Agreement.

In accordance with Rule 13d-3(d) under the Exchange Act, we have excluded from the number of shares beneficially owned prior to the offering all of the shares that Tumim may be required to purchase under the Purchase Agreement, because the issuance of such shares is solely at our discretion and is subject to conditions contained in the Purchase Agreement, the satisfaction of which are entirely outside of Tumim's control, including a registration statement becoming and remaining effective. Furthermore, VWAP Purchases (as defined in the Purchase Agreement) of Common Stock are subject to certain agreed upon maximum amount limitations set forth in the Purchase Agreement. Also, the Purchase Agreement prohibits us from issuing and selling any shares of Common Stock to Tumim to the extent such shares, when aggregated with all other ordinary shares then beneficially owned by Tumim, would cause Tumim's beneficial ownership of our Common Stock to exceed the 9.99% Beneficial Ownership Cap.

(7) In accordance with the Securities Purchase Agreement, in no event are we permitted to issue shares of Common Stock to 3i, LP in excess of the Beneficial Ownership Limitation. Beneficial ownership of 3i, LP included in this Selling Stockholders table reflects the total number of shares potentially issuable upon conversion of the Note and does not give effect to the Beneficial Ownership Limitation. Accordingly, actual beneficial ownership, as calculated in accordance with Section 13(d) of the Exchange Act and Rule 13d-3 thereunder, may be lower than as reflected in this table.

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- (8) In October 2020, the Sponsor transferred 20,000 founder shares to Mr. Robert Hochberg, an independent director of CF Finance Acquisition Corp. III. The founder shares automatically converted into shares of Class A Common Stock at the Effective Time and are subject to certain transfer restrictions.
- (9) In November 2020, the Sponsor transferred 20,000 founder shares to Mr. Robert Sharp, an independent director of CF Finance Acquisition Corp. III. The founder shares automatically converted into shares of Class A Common Stock at the Effective Time and are subject to certain transfer restrictions.

PLAN OF DISTRIBUTION

Each Selling Stockholder and any of its pledgees, assignees and successors-in-interest may, from time to time, sell any or all of the Shares covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which such securities are traded or in private transactions. These sales may be at fixed or negotiated prices. Each Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the Shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- · privately negotiated transactions;
- in transactions through broker-dealers that agree with such Selling Stockholder to sell a specified number of such securities at a stipulated price per security;
- · a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell Shares under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus. In connection with distributions of the Shares or otherwise, the Selling Stockholders other than 3i, LP may enter into hedging transactions with broker-dealers or other financial institutions.

Broker-dealers engaged by a Selling Stockholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from a Selling Stockholder (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The Selling Stockholders have informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the Shares. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because each of the Selling Stockholders may be deemed to be an "underwriter" within the meaning of the Securities Act, it will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The Selling Stockholders have advised us that there is no underwriter or coordinating broker acting in connection with the proposed sale of the resale securities by the Selling Stockholders.

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We agreed to keep this prospectus effective until the earliest of (i) one (1) year from the date the Registration Statement is declared effective by the SEC, (ii) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or mannerof-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (iii) the date on which all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale Shares may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby will be passed upon for us by Shearman & Sterling LLP, Menlo Park, California. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements of AEye, Inc. as of December 31, 2021 and 2020, and for each of the two years in the period ended December 31, 2021, incorporated by reference in this Prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith.

We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC as required by the Exchange Act. You can read our SEC filings, including this prospectus, over the Internet at the SEC's website at <u>http://www.sec.gov</u>.

Our website address is https://www.aeye.ai/. Through our website, we make available, free of charge, the following documents as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC, including our Annual Reports on Form 10-K; our proxy statements for our annual and special stockholder meetings; our Quarterly Reports on Form 10-Q; our Current Reports on Form 8-K; Forms 3, 4, and 5 and Schedules 13D with respect to our securities filed on behalf of our directors and our executive officers; and amendments to those documents. The information contained on, or that may be accessed through, our website is not a part of, and is not incorporated into, this prospectus.

This prospectus and any applicable prospectus supplement are part of a registration statement that we filed with the SEC, but do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Statements in the prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

INFORMATION INCORPORATED BY REFERENCE

The SEC rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 28, 2022;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2022 and June 30, 2022, filed with the SEC on May 13, 2022 and August 15, 2022, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 18, 2022, March 18, 2022, May 11, 2022, May 13, 2022, August 24, 2022 and September 16, 2022; and
- the description of our Common Stock contained in our Registration Statement on Form S-1 filed on May 6, 2022, including any amendment or reports filed for the purpose of updating such description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act in this prospectus, prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

You may request a free copy of any documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

AEye, Inc. Attn: General Counsel One Park Place, Suite 200 Dublin, CA 94568 (925) 400-4366

Exhibits to the filings will not be sent, however, unless those exhibits have been specifically incorporated by reference in this prospectus or any accompanying prospectus supplement.



AEYE, INC.

Up to 32,157,892 Shares of Common Stock Offered by the Selling Stockholders

PROSPECTUS

Part II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table indicates the estimated expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions.

	Amount
Securities and Exchange Commission registration fee	\$ 3,104
Accounting fees and expenses	\$ 20,000
Legal fees and expenses	\$ 40,000
Financial printing and miscellaneous expenses	\$ 5,000
Total expenses	\$ 68,104

Item 15. Indemnification of Directors and Officers.

Section 102 of the DGCL permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our Amended Charter provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our Amended Charter provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our Amended Charter provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of Common Stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act against certain liabilities.

Item 16. Exhibits and Financial Statement Schedules.

(a) **Exhibits.**

		Incorporated by Reference		
Exhibit	Description	Form	Exhibit	Filing Date
2.1*†	Merger Agreement, dated as of February 17, 2021, by and among the Company, Merger Sub and AEye Technologies	S-4	2.1	5/13/2021
2.2*†	Amendment to the Merger Agreement, dated as of April 30, 2021, by and among the Company, Merger Sub and AEye Technologies	S-4	2.2	5/13/2021
3.1*	Second Amended and Restated Certificate of Incorporation of AEye, Inc.	8-K	3.1	8/23/2021
3.2*	Amended and Restated Bylaws of AEye, Inc.	8-K	3.2	8/23/2021
4.1*	Registration Rights Agreement by and between AEye, Inc. and Tumim Stone Capital LLC, dated December 8, 2021	8-K/A	4.1	12/15/2021
4.2*	Warrant Agreement dated November 12, 2020, between Continental Stock Transfer & Trust Company and CF Finance Acquisition Corp. III	S-4	4.1	5/13/2021
4.3*	Specimen Warrant Certificate	S-4	4.3	5/13/2021
4.4*	Registration Rights Agreement by and between AEye, Inc. and 3i, LP, dated September 15, 2022	8-K	10.2	9/15/2022
4.5*	Form of Senior Unsecured Convertible Promissory Note issued in accordance with the Securities Purchase Agreement	8-K	4.1	9/15/2022

		Incorporated by Reference				
Exhibit	Description		Form	Exhibit	Filing Date	
4.6*	Form of Warrant issued in accordance with the Securities Purchase Agreement		8-K	4.2	9/15/2022	
5.1#	Opinion of Shearman & Sterling LLP	-		-		
23.1#	Consent of Deloitte & Touche LLP (with respect to AEye, Inc. financial statements)	-		-		
22.24						
23.2#	Consent of Shearman & Sterling LLP (included in Exhibit 5.1)	-		-		
24.1#	Power of Attorney (included on signature page of the of this Registration Statement)	-		-		
107	Filing Fee Table.	-		-	-	

Certain exhibits and schedules to this Exhibit have been omitted in accordance with Regulation S-K Item 601(a)(5), which the Registrant agrees to furnish supplementally to the SEC upon its request.

Filed Herewith.

Previously filed.

(b) Financial Statement Schedules.

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent posteffective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement;

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(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof;

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering;

(4) that, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; and

(5) that, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of an undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, hereunto duly authorized, in Dublin, California, on this 19th day of October, 2022.

AEYE, INC.

By: /s/ Blair LaCorte

Name:Blair LaCorteTitle:Chief Executive Officer

POWER OF ATTORNEY

KNOWN ALL PERSON BY THESE PRESENTS, that each person whose signature below constitutes and appoints Blair LaCorte as attorney-in-fact, with power of substitution, for his in any and all capacities, to sign any amendments to this Registration Statement on Form S-3, and file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-3 has been signed by the following persons in the capacities and on the date indicated:

Signature	Title	Date
/s/ Blair LaCorte	Chief Executive Officer and Director	October 19, 2022
Blair LaCorte	(Principal Executive Officer)	
/s/ Robert Brown	Chief Financial Officer	October 19, 2022
Robert Brown	(Principal Financial Officer and Principal Accounting Officer)	
/s/ Carol DiBattiste	Board Chair and Director	October 19, 2022
Carol DiBattiste	-	
/s/ Timothy J. Dunn	Director	October 19, 2022
Timothy J. Dunn	-	
/s/ Luis Dussan	Director	October 19, 2022
Luis Dussan	-	
/s/ Prof. Dr. Bernd Gottschalk	Director	October 19, 2022
Prof. Dr. Bernd Gottschalk	-	
/s/ Wen Hsieh	Director	October 19, 2022
Wen Hsieh	-	000000 17, 2022
/s/ Sue Zeifman	Director	October 19, 2022
Sue Zeifman	Director	0010001 19, 2022

1460 El Camino Real, 2nd Floor Menlo Park, CA 94025-4110 +1.650.383.3600

October 19, 2022

AEye, Inc. One Park Place, Suite 200 Dublin, CA 94568

<u>AEye, Inc.</u> <u>Registration Statement on Form S-3</u>

Ladies and Gentlemen:

We have acted as counsel to AEye, Inc., a Delaware corporation (the "<u>Company</u>"), in connection with the preparation and filing by the Company of the Registration Statement on Form S-3 (the "<u>Registration Statement</u>") with the Securities and Exchange Commission (the "<u>Commission</u>") under the Securities Act of 1933, as amended (the "<u>Securities Act</u>"), relating to the registration by the Company of the offer and sale from time to time by the selling stockholders (the "<u>Selling Stockholders</u>") covered by the Registration Statement of 32,157,892 shares of common stock, par value \$0.0001, of the Company ("<u>Common Stock</u>"), of which (i) 40,000 shares (the "<u>Outstanding Shares</u>") of Common Stock are issued and outstanding and held by certain Selling Stockholders, (ii) up to 30,367,892 shares (the "<u>Note Shares</u>") of Common Stock are issuable upon conversion of a convertible note purchased by 3i, LP (the "<u>Note</u>") and (iii) 1,750,000 shares (the "<u>Warrant Shares</u>") of Common Stock are issuable upon exercise of a warrant to purchase Common Stock held by 3i, LP (the "<u>Warrant</u>"), each as described in the prospectus forming a part of the Registration Statement (the "<u>Prospectus</u>").

In rendering the opinions expressed below, we have reviewed originals or copies of the following documents (the "<u>Opinion</u> <u>Documents</u>"):

- (a) The Second Amended and Restated Certificate of Incorporation and the Amended and Restated Bylaws of the Company, in each case, as amended through the date hereof;
- (b) The Registration Statement;
- (c) The Prospectus; and

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Shearman & Sterling LLP is a limited liability partnership organized in the United States under the laws of the state of Delaware, which laws limit the personal liability of partners.

(d) Such other corporate records of the Company, certificates of public officials and of officers of the Company and agreements and other documents as we have deemed necessary as a basis for the opinions expressed below, including the forms of the Note and the Warrant, filed as Exhibits 4.5 and 4.6, respectively, to the Registration Statement.

In our review of the Opinion Documents, we have assumed:

- (a) The genuineness of all signatures;
- (b) The authenticity of the originals of the documents submitted to us;
- (c) The conformity to authentic originals of any documents submitted to us as copies; and
- (d) As to matters of fact, the truthfulness of the representations made in the Opinion Documents, and in certificates of public officials and officers of the Company.

We have not independently established the validity of the foregoing assumptions.

Based upon the foregoing and upon such other investigation as we have deemed necessary and subject to the qualifications set forth below, we are of the opinion that:

- 1. The Outstanding Shares have been duly authorized by the Company and are validly issued, fully paid and non-assessable;
- 2. The Note Shares have been duly authorized by the Company, and when issued and delivered by the Company upon conversion of the Note in accordance with the terms thereof, will be validly issued, fully paid and non-assessable; and
- 3. The Warrant Shares have been duly authorized by the Company, and when issued and delivered by the Company upon exercise of the Warrant in accordance with the terms thereof, will be validly issued, fully paid and non-assessable.

This opinion letter is limited to the General Corporation Law of the State of Delaware and we do not express any opinion herein concerning any other law.

This opinion letter is delivered to you in connection with the filing of the Registration Statement. This opinion letter may not be relied upon by you for any other purpose without our prior written consent.

This opinion letter speaks only as of the date hereof. We expressly disclaim any responsibility to advise you of any development or circumstance of any kind, including any change of law or fact, that may occur after the date of this opinion letter and which might affect the opinions expressed herein.

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We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and to the use of our name therein and in the Prospectus under the caption "Legal Matters." In giving this consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act, or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Shearman & Sterling LLP

YH/dl/hs

CMF

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 28, 2022 relating to the financial statements of AEye, Inc., appearing in the Annual Report on Form 10-K of AEye, Inc. for the year ended December 31, 2021. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ DELOITTE & TOUCHE LLP

San Francisco, California October 19, 2022

Calculation of Filing Fee Tables

Form S-3 (Form Type)

<u>Aeye, Inc.</u>

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered(1)(2)	Proposed Maximum Offering price Per Unit(3)	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to be Paid	Equity	Common stock, par value \$0.0001 per share	457(a) and 457(c)	32,157,892	\$0.876	\$28,170,314	0.00011020	\$3 104 4
Fees Previously Paid	1,	P = 2 = 2	- (-)	- , - , ,		* - 1 - 1-		
			Total Offe	ring Amounts		\$28,170,314		\$3,104.4
			Total Fees Pr	eviously Paid				\$0
	Total Fee Offsets							\$0
				Net Fee Due				\$3,104.4

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, the shares being registered hereunder include such indeterminate number of shares of common stock as may be issuable with respect to the shares being registered hereunder, as a result of stock splits, stock dividends or other similar transactions.

(2) The amount to be registered includes 32,117,892 shares of Common Stock issuable upon conversion of the Note or exercise of the Warrant

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, based on the average of the high and low prices of a share of common stock on the New York Stock Exchange on October 17, 2022, which was \$0.876.