

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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report
(Date of earliest event reported): June 8, 2022

Aeluma, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-56218
(Commission File Number)

85-2807351
(IRS Employer
Identification No.)

27 Castilian Drive
Goleta, California
(Address of principal executive offices)

93117
(Zip Code)

805-351-2707
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act: none.

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

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 13(a) of the Exchange Act.

Item 8.01 Other Events.

We are filing this report to disclose a power point presentation the Company will use during its presentation at the 12th Annual LD Micro Invitational Conference on Wednesday, June 8, 2022 at the Four Seasons Hotel in Westlake Village, CA. The presentation is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Exhibit
99.1	Power Point Presentation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

AELUMA, INC.

Date: June 8, 2022

By: /s/ Jonathan Klamkin
Jonathan Klamkin
President, Chief Executive Officer and Director



Sensing Reimagined™

Investor Presentation

June 8, 2022

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Forward Looking Statements



This presentation contains summary information about Aeluma, Inc. ("Aeluma") as of the date hereof. The information in this presentation is of general background and contains an overview and summary of certain data selected by the management of Aeluma. It does not purport to be complete.

This presentation is not a prospectus, disclosure document or offering document under the law of any jurisdiction. It is for informational purposes only. This presentation is not investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. A recipient must make their own independent investigations, consideration and evaluation of Aeluma and the offer and Aeluma recommends that investors should obtain their own professional advice before making any investment decisions in the company. This investor presentation shall also not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any states or jurisdictions in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No registered offering of securities shall be made except by means of a prospectus meeting the requirements of section 10 of the Securities Act of 1933, as amended.

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Some of the statements appearing in this presentation are in the nature of forward looking statements. You should be aware that such statements are predictions based on assumptions, and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industry in which Aeluma operates as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets and other factors that are in some cases beyond Aeluma's control. As a result, any or all of the Aeluma's forward-looking statements in this presentation may turn out to be inaccurate. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this presentation. These forward-looking statements speak only as of the date of this presentation, and we assume no obligation to update or revise these forward-looking statements for any reason.

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At a Glance



Enabling the future of automation with high performance sensors

Overview

Aeluma is a semiconductor company specializing in scalable, cost-effective sensor technologies for advanced LiDAR solutions.

Corporate Headquarters: Goleta, California (Infrared Capital of the World)

Founded: 2019

Employees: 10 (including five PhDs with 70+ years experience)

Highlights

Broad and defensible intellectual property portfolio

World-class technical team

Highly experienced advisors and seed investors including Nobel Laureate Shuji Nakamura

Went public through Form 10 Reverse Merger in June 2021 with \$8M raise and awaiting approval of 15c2-11 and DTC eligibility to commence trading

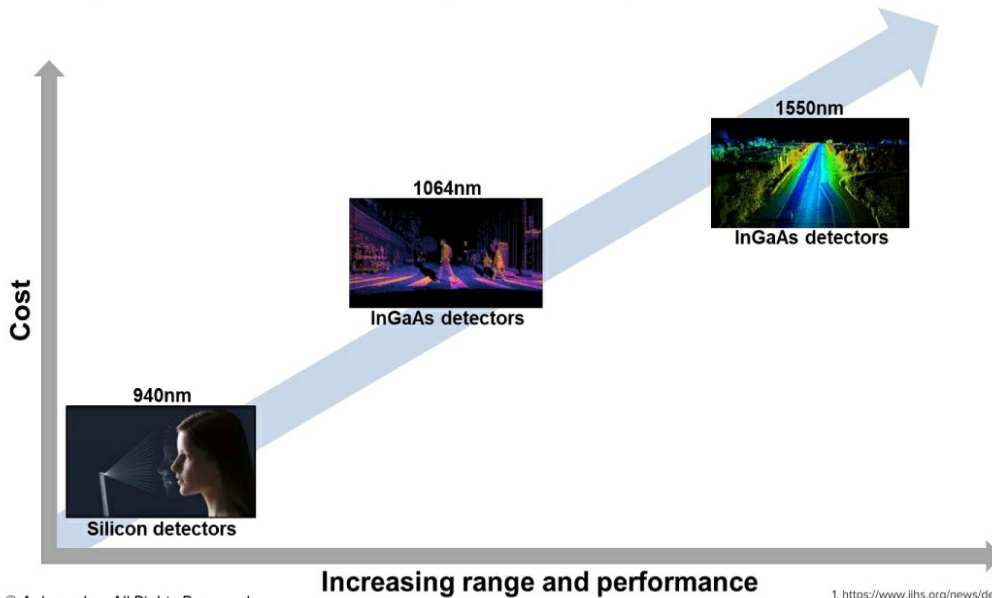


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Aeluma's Initial Focus on Automotive LiDAR



- LiDAR is essential for Autonomous Driving and Advanced Driver Assistance Systems (ADAS)!¹
- Mid- and long-range LiDAR sensors require InGaAs-based receivers², however, InGaAs manufacturing is expensive and low volume therefore preventing scaling and broad adoption.³



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Note: Outcomes cannot be guaranteed. Range and cost estimates are not based on actual data. Sources of images: blog.laserto.com; novuslight.com; techcrunch.com; i-microwaves.com

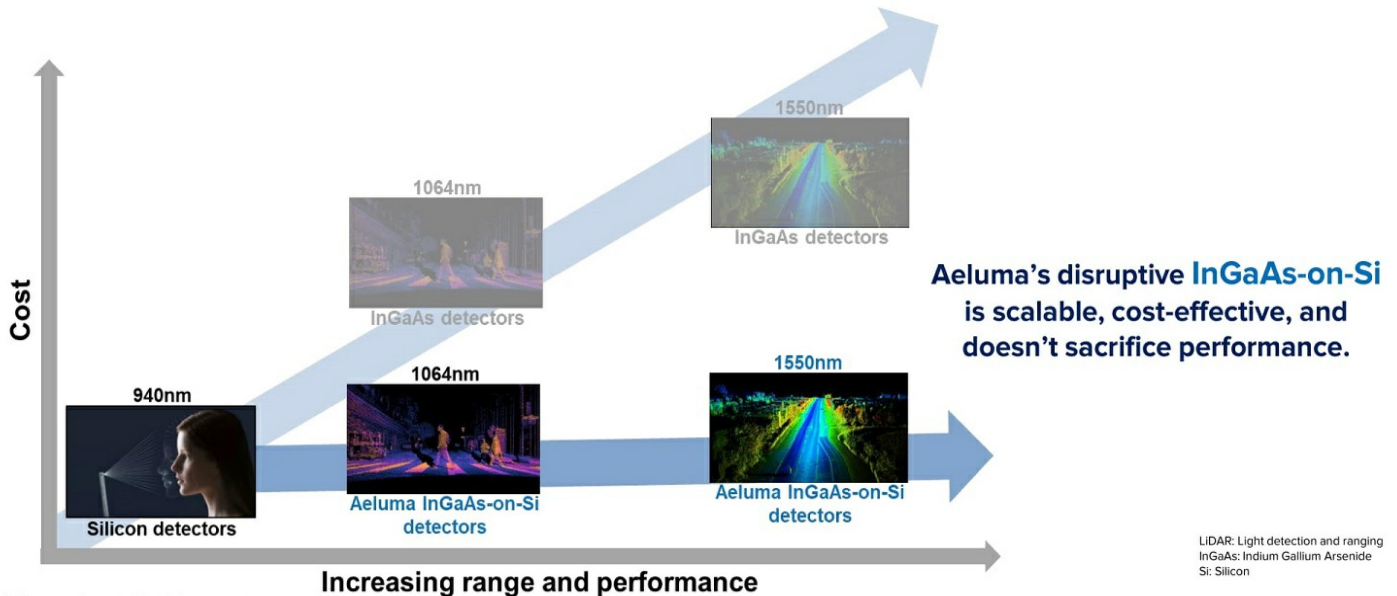
1. <https://www.ihs.org/news/detail/pedestrian-crash-avoidance-systems-cut-crashes-but-not-in-the-dark>
2. C. Rablauer, "LiDAR – A new (self-driving) vehicle for introducing optics to..." ETOP 2019, paper 1143_138.
3. <https://www.mdpi.com/2076-3417/9/19/4093>

LiDAR: Light detection and ranging
InGaAs: Indium Gallium Arsenide
Si: Silicon

Aeluma's Goal:

To Provide Increased Visibility and Longer Range Cost Effectively

Manufacturing high-performance InGaAs photodetector arrays at Silicon cost levels



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Aeluma Outperforms the Competition

Technology Comparison



Metric	Aeluma InGaAs-on-Si	Conventional InGaAs (on InP)	SPAD (on Si)	Germanium (on Si)	Thin film (on Si)
Wavelength range	1000-1700nm	1000-1700nm	<950nm	<1550nm	<1550nm
Sensitivity	High	High	Moderate	Moderate	Moderate
Outdoor environments	Suitable	Suitable	Not as suitable	Somewhat suitable	Somewhat suitable
Long range LiDAR	Suitable	Suitable	Not suitable	Somewhat suitable	Somewhat suitable
Eye safe at high power	Yes	Yes	No	Yes	Yes
Manufacturing cost	Low	High	Low	Low	Low
Scalability	High	Low	High	High	Not proven

Aeluma's technology enables high performance with scalable, cost-effective manufacturing.

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Note: Outcomes cannot be guaranteed. Metrics values are not based on actual data and are provided for qualitative illustration purposes only.

InP: Indium Phosphide
SPAD: Single-photon avalanche diode

Market:
**Automotive OEM
 LiDAR Demand is
 Increasing**



Nissan Motor Corporation: “Nissan aims to expand ProPILOT technology to over 2.5 million Nissan and INFINITI vehicles by fiscal year 2026. The company will also further develop its autonomous vehicle technologies, aiming to incorporate next generation LiDAR systems on virtually every new model by fiscal year 2030.”

<https://usa.nissannews.com/en-US/releases/nissan-unveils-ambition-2030-vision-to-empower-mobility-and-beyond>

Market:
**Automotive OEM
 LiDAR Demand is
 Increasing**



Mercedes Taps Luminar for Laser Sensors, Takes Stake in the Company

- Technology company also has production pacts with Volvo, SAIC
- European automakers 'ahead of the game' on lidar, CEO says

By Gabrielle Coppola
 January 20, 2022, 6:00 AM PST Updated on January 20, 2022, 9:41 AM PST

From **Hyperdrive**



“The fully electric successor to Volvo Cars’ XC90, to be revealed in 2022, will come with state-of-the-art sensors, including LiDAR technology.”

<https://www.media.volvocars.com/us/en-us/media/pressreleases/283443>

Aiming to Service a Broad Market

High Performance Imaging for a Variety of Markets



Initial target markets

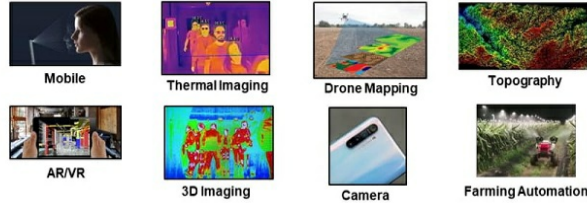


Autonomous Vehicles

Industrial Automation and Machine vision

Robots

Future potential markets



Mobile

Thermal Imaging

Drone Mapping

Topography

AR/VR

3D Imaging

Camera

Farming Automation

LiDAR for Automotive and Industrial 2030 TAM: \$5B-\$42B^{1,2}

2024 Market Projections³

113 million automotive vehicles

131 million tablets

1.73 billion mobile phones

Aeluma's technology can support this level of scale.

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1. <https://www.bloomberg.com/press-releases/2022-05-31/lidar-market-size-to-be-worth-4-71-billion-by-2030-grand-view-research-inc>;
2. AEye Presentation, LD Micro Invitational 2022; 3. www.idc.com Note: Outcomes cannot be guaranteed.

Aeluma's Technology Breakthrough

Scalable, Cost Effective Manufacturing Enabled by Cutting-Edge Intellectual Property



Conventional manufacturing of InGaAs photodetector arrays

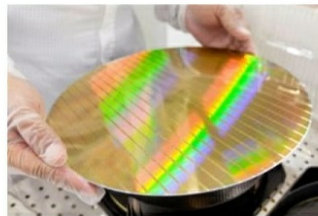


Non-scalable, manual and low throughput

16X wafer area

Moving from 3-inch to 12-inch wafers

Aeluma high performance InGaAs photodetector arrays with Silicon manufacturing



- ✓ Highly automated and ability to produce many arrays per wafer
- ✓ 10X lower manufacturing cost for mass market applications

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Note: Outcomes cannot be guaranteed.

Aeluma's Headquarters

Facility with manufacturing cleanroom in ideal location for development



- Located in Goleta, California High-Tech Corridor
- In the heart of the Infrared Capital of the World
- 9,000 sq. ft. space with cleanroom facility
- Close to University of California Santa Barbara



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Aeluma's Cost-Effective Scalable Manufacturing

Unique 12-inch Wafer Capability and Strong Intellectual Property



- Commercial 12-inch state-of-the-art MOCVD tool
- Set up for cassette loading production
- One of only a few such tools worldwide
- Extensive patent protection and trade secrets



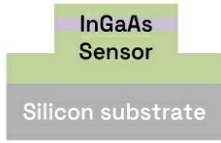
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World's First

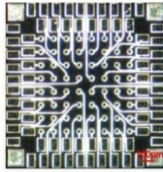
Direct Growth InGaAs-on-Si Detector Array Prototype



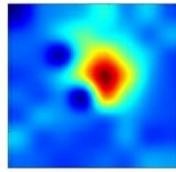
Top-Illuminated
Mesa Device Pixel



Imaging Detector
Array Prototype

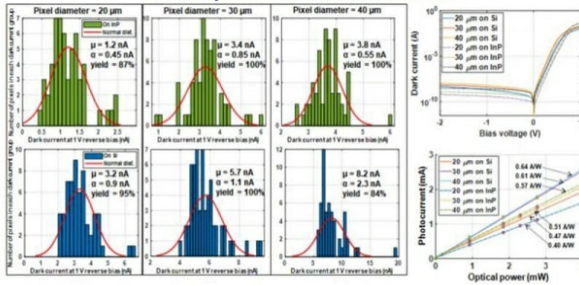


Captured and
Processed Image



- World's first InGaAs imaging detector array realized directly on Silicon
- Performance on Silicon similar to that on conventional InP

Summary of Performance Data



Reference to university research: B. Song, et al., CLEO 2021 (UCSB).
Internal testing, no third party verification. Past results are not a guarantee of future results.

Demonstration performed with small Silicon wafer and is transferable to large Silicon wafers for cost-effective manufacturing

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Milestone Achievements and Traction



UCSB



transphorm



Continental



FLIR



Concept and early-stage demonstration

Prepare facility

Install and qualify equipment

First 12-inch wafer

Prototype fabrication

Deliver first engineering samples to customer



Aeluma's Go-to-Market Strategy: Partner with strategic system integrators, Tier 1 automotive suppliers, and semiconductor foundries to implement Aeluma's technology in LiDAR sensor products

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Note: Outcomes cannot be guaranteed.

Our Team



Visionary Leadership and Seasoned Entrepreneurs



Jonathan Klamkin, PhD
Co-Founder & CEO



Shuji Nakamura, PhD
Seed Investor



Thomas Laux
VP of Business Development



Steven DenBaars, PhD
Advisor & Seed Investor



Lee McCarthy, PhD
Co-Founder & COO



Jeffrey Shealy, PhD, MBA
Advisor & Seed Investor



David Field
VP of Finance



Richard Ogawa, JD
Advisor & Seed Investor



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Our Board of Directors



Highly Experienced Strategists and Finance Experts



Jonathan Klamkin, PhD
Co-Founder & CEO / Director



Palvi Mehta
Director



Steven DenBaars, PhD
Advisor & Seed Investor / Director



John Paglia, PhD
Director



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Summary:

Shares outstanding: 10,650,002
Post-Money Valuation at time of APO: ~\$21.3M

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