GEIA.AI

A WEB3 IoT SaaS Precision Farming automation platform

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Technology Offering Simply Explained

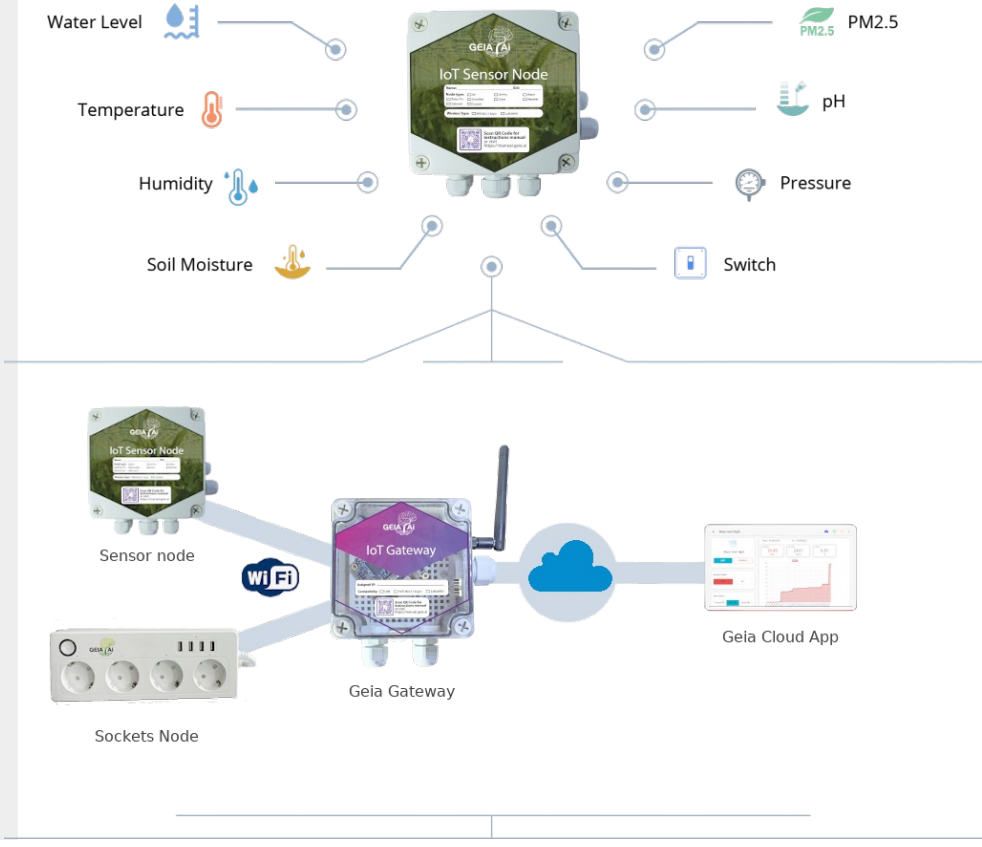
GEIA is a WEB3 IoT SaaS & RaaS Precision farming automation platform that seeks to become the most "Intelligent Farmer" using Decentralized Artificial Intelligence.

The Features come as a service, such as: providing insight data and advanced analytics, greenhouse total business management tools , integration with web shops / accountancy or 3rd party robotics etc.

The core product is the Automation & self learning software, that will become the most intelligent farmer.

The program gives growers the tools to discover perfections: The automation tool with the feature rich configurations & sub-functions allows the system to control all appliances, hence an autopilot helper and a watchdog.

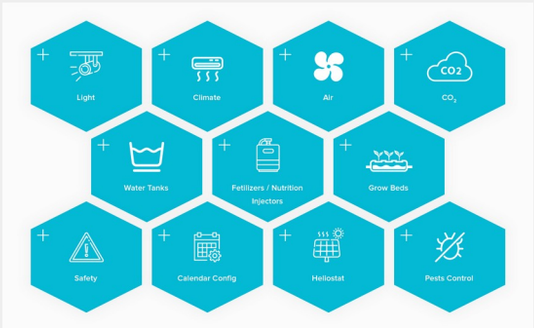
How IoT Works



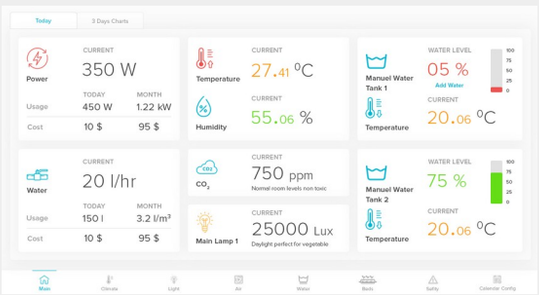
Think of Geia as a type of a robot, that can control many electrical devices and read from many sensor types and weather stations:

- Its specially designed for the agriculture / horticulture industry, whereby the additional sophisticated robot helps to solve critical issues: Plant growing with the many ways and techniques to achieve the best optimized results: **maximum yields with minimum resources and maximum efficiency.**
- Geia is capable of learning biology, chemistry/ biochemistry, meteorology, some basic physics and over 56k types of plants – to become an intelligent grow system.
- Geia consists of several main "brains": 1. Operational 2. Analytical - that's where all the magic of learning happens. where GEIA will be deep learning & researching all data and will take actions to:
  - Recognize plants & their current conditions
  - Predict next batch yields
  - Predict diseases
  - Recognize the favor conditions for plants thrive & increase yields *(using the mass amount trial & error data of each grower)*

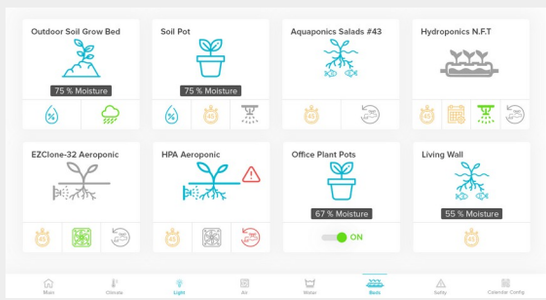
Add Automation functions to zone (of many zones)



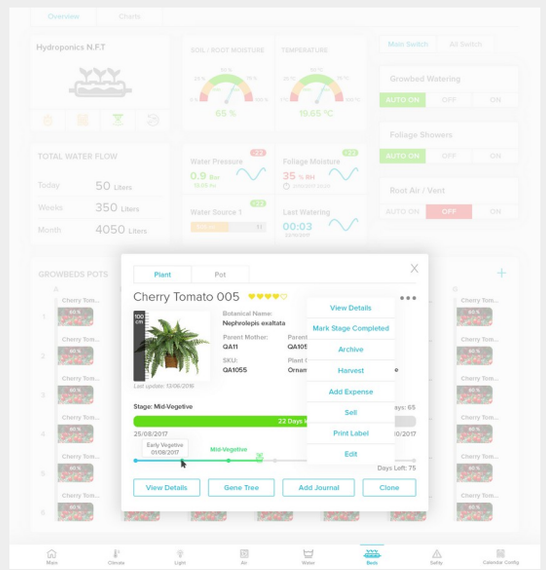
Zone Dashboard (Grow Area)



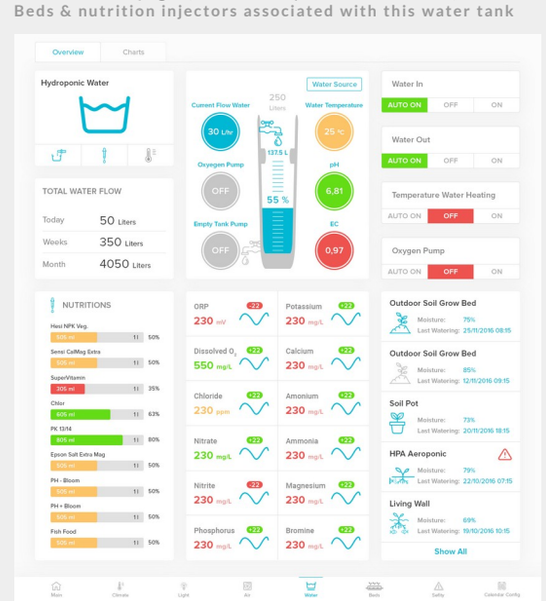
List of grow-beds within the zone



Grow bed details + Rows of plants / pots within this bed



Water detail page *(out of many within the zone)* + Grow Beds & nutrition injectors associated with this water tank



How Geia Helps Growers?

- Management system from seed to crop and precision farming automation.
- Increases efficiency & yields thus sustainably increases productivity.
- Saves valuable resources (water, nutrition) & operational costs.
- Sustains quality & breeds over many cycles.
- Tracks environmental factors through sensors
- Manages Air ventilation, CO2 injections, and light spectrum checks.
- Monitors & controls water, injects nutrition and hormones, maintains pH, EC, Dissolved oxygen levels in water and water plants.
- Provides analytical data about performance & history for each plant as well as about water & energy consumption.
- Calculates production costs for each plant.
- Tracks the genetic family tree of plants & issues plant Passport (EU).
- Contributes to plant disease prevention by enhancing resilience (adaptation). Plant & Disease recognition function.
- Creates plant time lapse video backed with the plant analytical data.

Initial Market

- Professional Hobbyists
- SMB Green Houses
- Indoor Farmers using: Aquaponics, Aeroponics, Hydroponics & Soil grow cultures

Potential Partners

- Agri-tech Robotics & Drones.
- Retailers & Grow shops.
- Grow medium producers, or Greenhouses manufactures.

We are one step away from public launch:

The technology has been proven to work by private testers. The next step will be opening it for Public Beta testers, including SMB Green Houses and private growers.

☑ Front-end APP is on final track to be listed in Apple's App Store & Google's Play Stores.

☑ Back-end system (GeiaOS) + Hardware firm wares are ready.

☑ Hardware: Limited quantities were manufactured, majority of the suppliers / manufactures are awaiting mass-production orders from Geia. These parts are produced in the EU & CN.

☑ Geia has already manufactured sample prototypes of these hardware items: IOT sensor Node, IOT Gateway, EU Sockets Node (units in warehouse).

☑ Precision farming automation function through real-time data is operational.

☑ Geia Website & Web shop almost completed.

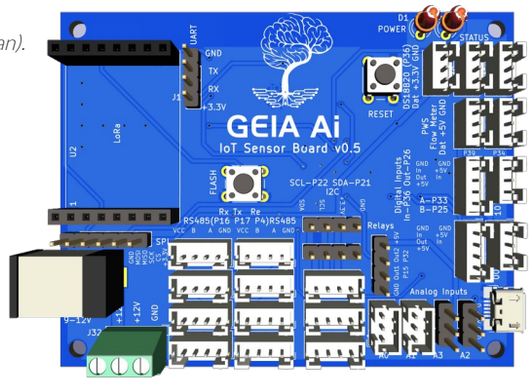
☑ Fully scalable System & modular by design => Both End users & Geia can scale easily to handle mass loads & users.

☑ Rest API available for developers, users & 3rd party vendors (i.e., integration with web shop, accounting software or robotics).

Past Funding: Pre-seed
2016-2021
65k$

Business Model

- Monthly Subscription Plans & In-app premium add-ons *(There always will be a basic free plan).*
- Sale of Hardware to Geia users.
- White label license for Partners and Wholesale Subscription plans.
- Public AI API Data usage plans for researchers.
- Setup & Installation of hardware on big farms (directly or using local partners).



Public Beta “Smart Grow”

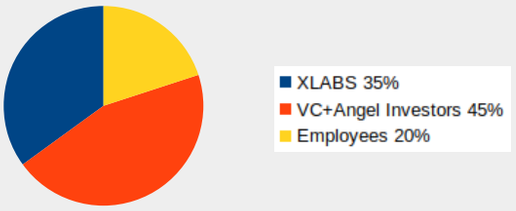
Will offer users to test the system & automate their current grow operations using the DIY starter kit & automation functions currently offered in the APP *(Climate control, Water tank, Watering, Nutrition Feeding, Disaster prevention).*

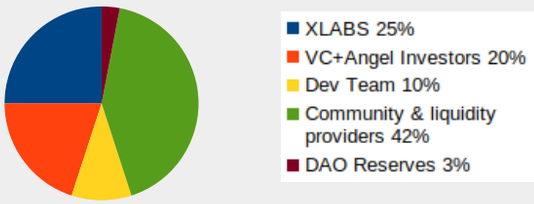
Growth Prospects

Smart agriculture has grown from **$9.58 billion in 2017 to $12.4 billion in 2020**. And according to BIS Research, the market is expected to grow to **$34.1 billion by 2026.**

Unique Business Structure

We are excited to offer investors the opportunity to purchase both **company equities** and **blockchain utility tokens** (IDO) for our DAO. By owning both assets, investors can diversify their portfolio and enjoy the benefits of both traditional and blockchain-based investments. Each asset will be responsible for different aspects of the system and business, providing investors with a well-balanced portfolio.





- Company will be producing and re/selling hardware on shop.geia.ai, as well as managing all aspects of the production and sales process.
- Creating partnerships and offering white-label hardware services for reselling or integrating into third-party products can help us expand our business and reach new customers.
- Robotics as a service: Take our offering to the next level by partnering with cutting-edge innovative robotics manufacturers and offering exciting new features for their robots in our app as a service.
- Paid technical support and setup automation for SMB greenhouses: Our team of experts is here to make your life easier, whether you need us directly or through our network of trusted partners.

- By leveraging the power of a DAO, we can effectively manage Geia's digital assets and distribute a share of the profits to token holders.
- DAO maintain & manages the Web3 dAPP with back-end hosted on decentralized clouds of nodes
- By adopting the Uniswap model, we will allow token holders to make decisions about adding and changing features to our system through a consensus-based voting mechanism, ensuring that the platform remains agile and responsive to the needs of its users.
- Community consist of investors, contributors, ambassadors & users

Funding Round: "Seed" (Early Angel / VC Investors)

We're looking for **$550k - $650k** in exchange for equity (Company & DAO Shares).
Minimum funding amount is **$20k.**

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Fundraising Goals:

- Complete development of part II of the Geia App *(up to < v1.5 that include management part).*
- Enter the market and raise awareness to the technology and to the brand.
- Attract public test users and engage them in testing.
- Manufacture Geia hardware items (Starter Kits & Add-ons) & Packaging Print (EU & CN), and delivery of the necessary number of hardware items for the testers.
- Introduce the Industrial products line: Vision (Cam) node, Add sensors , modbus relay electrical systems, outdoor off-grid nodes
- Finish designing the Website and the Marketing materials.
- Produce 3 Videos: 2x Promo, 1x getting started with Geia.
- Launch the marketing campaign and hit social media *(For Public Beta Testers / Partner Program & Early Adopters)*
- Participate in select world-wide Agri-tech Expo's, to network and to introduce Geia.
- Setup (small scale trial) Geia system in selected commercial green houses *(Africa / Israel / EU / USA).*
- Make Partnerships with robotics to support them in the APP *(eg. lawnmower , imaging drone, pesticide drone, fruit picker robot, autonomous agricultural vehicles).*
- Build the DAO community.

PH/Nutritions/Sterilizers Dosing Node for pro home growers

Air Sensor Node

IoT Gateway

Water Sensor Node
Outdoor Valve Node
Outdoor Sensor Node
Relay / Actuator Node

WiFi Sockets / Extension cord

Team

Geia has been in developing & testing on real crops since 2016 by a team of childhood friends, ex coworkers & private professional agronomists.

Purchase & Supply Chain manager

Lilla Belovai *(HU)*

Co-Founder, Early Investor

Adam Solehova *(CZ)*

Co-Founder, Renewable Energy & Green House Engineer

Philipp Feger *(DE)*

Founder, CTO, System Architect & Lead Developer

Junell Abdi *(HU, IL)*

Co-Founder, Embedded & Machine Learning Engineer

Emil Sweid *(iL)*

Together with 19 freelance developers, Designers & Advisors

Posted by u/captainreptile 4 months ago

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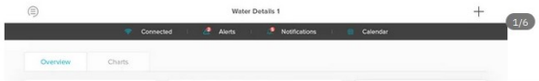
Introducing GEIA.AI - IoT Precision farming Monitoring & Automation system. Become a test user & enjoy big discounts



analogx-digitalis · 4 mo. ago

op u looking for contributors?

2 Reply Share ···

Agrahar-Hydroponics · 4 mo. ago

We Agrahar HYDRO-TEC, Based on Chennai Tamilnadu India very much interested to test your AI-IoT on our Products...kindly register us to take it further.. thanks 😊

1 Reply Share ···

average_AZN · 4 mo. ago

This is exactly what I made as a prototype back in college! I never finished that project because I suck at code (IM AN EE). Glad to see someone brought this powersteip form factor to market! I'm interested in trying it for sure. You make a US version?

5 Reply Share ···

aerogrowz · 3 mo. ago

Looking great!; couple feature requests come to mind, VPD monitoring and charting.

For AI/ML purposes; the ideal uptake of nutrients and how often you have to spray would have to take in account how much the plants are transpiring. This also seems to greatly effect nute feed levels in a large way.

Adding lumens in is awesome; another large factor with leaf surface temperatures is how much light we are dealing with.

2nd one; some version of high availability, DR or alerting. Can lose entire grow in less then 4 hours with aero. Currently i program a fail-safe that just leaves the sprayers always-on after losing a couple grows due to software bug or sensor failure.

AppointmentGlobal · 4 mo. ago

Amazing product!

1 Reply Share ···

ogn3rd · 4 mo. ago

How do you keep your dosers from adding too much ingredient before the sensors pick it up?

1 Reply Share ···

CircadianTeeTeas · 4 mo. ago

Very interesting product. I went through your site but wasn't sure; do you provide the sensors that connect to the air / water node? If sensors are not provided, how does someone connect their own sensor to the node and how does the node handle all the different sensors on the market?

Does your product carry any safety certification? I'm not sure if it applies in Europe, but North America requires a label from a recognized safety organization (UL and CSA for example) if you're connecting to AC power.

2 Reply Share ···