APPLICANT INFORMATION

Applicant Name or Alias

: Elisabeth

Project Name

: Compass Labs

Project Description:

Dojo - a python-based DeFi platform developed by Compass Labs - is the world's first platform that allows users to access DeFi with simple Python commands, handling complex blockchain interactions in the background. A GMX integration in dojo enables GMX users to source data, backtest, simulate and optimize trading strategies and smart contracts on local test nets, and monitor performance and protocol analytics in real time.

Check out detailed grant proposal, platform details, key features, company backgroundhere

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Team Members and Qualifications:

- Elisabeth Duijnstee (Co-founder & CEO):

Elisabeth holds a Ph.D. in Physics from the University of Oxford. She developed quant strategies at a hedge fund and was a machine learning fellow at Faculty AI. She is also a partner at Founders and Funders at Oxford's Business School.

Focus: Project supervisor, Dojo user onboarding, marketing

- Lukas Scheucher (Co-founder & CTO):

Lukas was a software and machine learning engineer at Google and Google X - the moonshot factory, founding engineer at Job Protocol, and Machine Learning engineer at Volkswagen. His favourite language is python, but is also fluent in C, C++ and Go. He graduated with a Msc in Engineering from Stanford.

Focus: Technical project supervisor (Dojo infrastructure, data services, cross protocol/chain simulation, dashboards)

- Tudor Munteanu (Senior Software Engineer): Tudor

is an engineer and serial entrepreneur who has been in Web3 since the Mt Gox days. He worked on marketing tech for award-winning advertising agencies and had an exit with a comms tool. With over 18 years of tech experience, his strengths are DevOps, distributed system backends and DeFi.

Focus: Dojo backend productionization, data services

- Ben Hack (Software Engineer):

Ben is a Linux Engineer from Jane Street, developing automation tooling and large scale netboot infrastructure. He hold a Msc in Computer Science and Philosophy from the University of Oxford.

Focus: Dojo backend productionization, cross protocol/chain simulation

- Aidar Pochanov:

Aidar is an Imperial College alumni with experience as a software engineer in banking and SaaS. He started his journey in web3 in 2022 when wont Voltz protocol hackathon for creating a liquidation bot for Voltz and ever since has been involved in various DeFi projects.

Focus: GMX integration

- Stefan Joseph (Front-end Engineer)

: Stefan is a full-stack developer from Shopify with experience across the stack — i.e. API design, frontend development, database, and has an absolute builders mindset.

Focus: Performance and analytics dashboards, data services

Project Links:

- Dojo documentation & tutorial
- Github Compass Labs
- Website Compass Labs
- dojo-compass PyPI
- Example repo
- Research Papers & medium articles
- Twitter

Contact Information:

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labs_compass

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elisabeth@compasslabs.ai

GRANT INFORMATION

Requested Grant Size:

63,000 $ARB

Grant Matching:

N/A

Grant Breakdown:

- 30,000 $ARB will be used for GMX integration in Dojo
- 10,000 $ARB will be used for data querying services
- 15,000 $ARB will be used for cross protocol and cross chain functionality and productionization and support
- 8,000 $ARB will be used for market impact model research and example repositories

Funding Address:

0xDB58c7697B11057481d72A0bc32ED0D49e10cda9

Funding Address Characteristics: 2/3 multisig wallet. Each private key is held by core team members and is securely stored.

PROPOSAL

Proposal:

Our integration of GMX with Dojo aims to provide traders and developers with a robust python-based platform for accessing data, simulating strategies, and stress testing smart contracts under various market scenarios.

Our goals for GMX are five-fold:

1. Integrate GMX in Dojo

a. Python Package for Agent-Based Simulations

- Objective:

Allow users to run agent-based simulations against integrated GMX environment.

- Functionality:
- Replicate interactions on GMX to closely resemble mainnet.
- Implement custom policies for agents to dictate behavior and actions.
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- Implement custom policies for agents to dictate behavior and actions.

b. Intuitive Design of Protocol Integrations

- Objective:

Make GMX easy to use through intuitive Python functions, where complex smart contract interactions are handled in the background

- Functionality:
- Enable an intuitive abstract interface to GMX, and functions through Python, which are otherwise accessible only via smart contract calls.
- Example functions for Aave:
- Enable an intuitive abstract interface to GMX, and functions through Python, which are otherwise accessible only via smart contract calls.
- Example functions for Aave:

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c. On-Premises Software

- Objective:

Ensure full confidentiality and local testing of strategies and smart contracts.

- Functionality:
- Allow the Python package to run on local infrastructure.
- Ensure that all strategies and simulations remain local and fully confidential.
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2. Local Testnets for GMX Simulations

Objective:

Enable users to test and train in environments at the EVM level such that simulations are as close to production as possible.

- Functionality:
- Spin up a testnet environment for every simulation to handle thousands of transactions efficiently.
- Use a local EVM with relevant contracts and targeted history for rapid experimentation.
- Benefits include avoiding the bloat of full nodes and costs of RPC services, while performing rapid testing and experimentation for accelerated iterate-deploy cycles.
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- Use a local EVM with relevant contracts and targeted history for rapid experimentation.
- Benefits include avoiding the bloat of full nodes and costs of RPC services, while performing rapid testing and experimentation for accelerated iterate-deploy cycles.

3. GMX Data Querying

Objective:

Enable GMX users to access curated data of any smart contract and any historic block.

- Functionality:
- Develop data readers for all smart contracts and historic blocks.
- Provide all event and function data with custom inputs.
- Offer curated data access for users.
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- Offer curated data access for users.

4. Interactive Dashboard

Objective:

Visualize strategies in real-time.

- Functionality:
- Provide a dashboard to visualize agent actions, performance, and pool analytics.
- Save all generated data for future analysis and reference.
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5. Develop and Integrate Examples and AI Models

Objective:

Enable users to understand strategy performance in different market scenarios, and provide and open-source examples for GMX.

- Functionality:
- Develop market impact models for realistic ecosystem modeling.
- Integrate these models into Dojo to enhance strategy analysis for GMX users.
- Provide a repository with GMX strategy examples.
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Grant Timelines, Milestones, KPIs, Objectives, and Execution Strategy:

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1. GMX Integration (Month 1-2)

- Objective:

Integrate GMX into Dojo, offering users an intuitive python interface tailored for GMXs ecosystem. This covers everything described in GMX Integration and Local Testnets.

- Deliverable:

A fully functional integration with the GMX, enabling users to conduct simulation and backtesting activities seamlessly. This includes the implementation of running forked and local backends for comprehensive and fast testing.

- Budget:

$30k

2. Data Accessibility (Month 1)

- Objective:

Expand our robust backend data querying service to support GMX, ensuring users have easy access to on-chain data. This covers everything described in Data Querying.

- Deliverable:

A sophisticated backend infrastructure capable of efficiently querying and delivering comprehensive on-chain data for all integrated protocols. This service will provide users with curated data, including event and function call data for any contract and block.

- Budget:

$10k

- Additional Details:

If requested, we can build a front end to provide this as a standalone service for GMX users.

3. Engineering Productionization & Support (Month 2-ongoing)

- Objective:

Productionization and deployment of GMX integration in Dojo. This phase will involve rigorous testing, optimization, and refinement of the integration to meet the highest standards of reliability and performance in a production environment. Technical documentation will be prepared to guide users through the integration process and maximize the benefits of the integration.

- Deliverable:

Delivery of a production-ready platform, accompanied by comprehensive technical documentation detailing integration processes and operational procedures.

- Budget:

$15k

4. Model Research and Example Development (Month 2-ongoing):

- Objective:

Conduct iterative research and development on market impact models and example repo’s for strategies on GMX.

- Deliverable:

- Integration of market impact model into the Dojo platform, enabling users to analyze and optimize their strategies with enhanced accuracy and precision.
- Repo with GMX strategy examples
- Integration of market impact model into the Dojo platform, enabling users to analyze and optimize their strategies with enhanced accuracy and precision.
- Repo with GMX strategy examples
- Budget:

$8k

- Additional Details:

Our team will collaborate with industry experts (Alan Turing Institute, Imperial College London) and leverage advanced machine learning techniques to develop and validate market impact models.

5. Partnerships and Community Growth (Month 1-…):

- Objective:

Forge strategic partnerships with leading protocols and communities within the GMX ecosystem, driving adoption and growth.

- Deliverable:

Establishment of mutually beneficial partnerships leveraging Dojo to onboard users and optimize strategies on GMX. This includes collaborative initiatives to enhance platform functionality and address community needs.

- Budget:

Ongoing

6. Marketing, Technical Writing, and Community Development (Month 1-…):

- Objective:

Generate awareness and drive engagement through strategic marketing, technical writing, and community development efforts.

- Deliverable:

Creation and dissemination of technical papers, written documentation, and engaging content across social media to educate, inform, and inspire the community. This includes social media marketing campaigns, blog posts, and technical articles.

- Budget:

Ongoing

For important milestones, we'll be authoring and publishing articles and thought pieces that outline our research, experience, and learnings as well.

Justification for the size of the grant:

The requested grant amount is essential to cover the comprehensive integration of GMX into Dojo, the expansion of our data querying services, and the rigorous testing and optimization required for productionization. This funding will also support our research efforts on market impact modelling with industry experts and drive strategic marketing and community engagement. Our detailed budget ensures each phase is adequately resourced to achieve successful and impactful outcomes for the GMX ecosystem. This project will be the top priority for the Compass team, ensuring focus and timely delivery.

How will receiving a grant enable you to foster growth or innovation within the GMX ecosystem?

This integration is highly requested by our users, reflecting a strong demand for simpler and more efficient tools in the DeFi space. Meeting this demand will attract more developers and traders to GMX, driving growth, enhancing user engagement, and solidifying GMX's position in the DeFi landscape.

Integration of GMX into Dojo can significantly enhance GMX value proposition in several ways:

1. Increased TVL & Trading Volume

: Dojo, is the worlds first place that enables users to use simple python commands to access DeFi, while all complex blockchain interactions are handled in the background. This means it significantly lowers the barrier to entry to DeFi (and thus GMX). By equipping users with the necessary tools and resources to data and testing and optimization of strategies and smart contract, and enable them to perform risk management effectively, Dojo facilitates the growth of TVL and trading volume on GMX. Additionally, Dojo allows for cross-chain, cross-protocol simulations such that users can simulate strategies that involve multiple protocols and chains.

1. Elevated Technical Standards

: By integrating GMX in Dojo, we democratize access to an extremely valuable toolset for quants, smart contract developers and protocol risk managers to participate on GMX. 1. Python Interface:

This will be the first time users can integrate with the vast ecosystem of data analytics and machine learning tools through Python to interact with the blockchain. This provides users with unparalleled flexibility and scalability for strategy experimentation, development and testing.

1. Agent-based Simulations:

Agent-based learning on Dojo offers users early access to emerging technologies and innovations in the DeFi space to optimize investment strategies. This gives GMX an absolute competitive advantage in the market. Integration in Dojo will bring publicity to GMX as a pioneer for novel agent-based backtesting solutions for (AI-driven) strategy and smart contract optimization in the crypto liquidity space. ****

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1. Empowered Risk Management

: Providing users with a Python-based sandbox environment for stress testing enables effective risk management. Users can experiment with different scenarios, analyze potential outcomes, and adjust parameters accordingly, reducing the likelihood of adverse events and losses for both strategy providers and protocols.

1. Improved Data Accessibility

: Our backend data querying service provides comprehensive and curated on-chain data. This enhances transparency and facilitates data-driven decision-making, enabling users to easily access data to focus on core objectives such as optimizing strategies and mitigating risk more effectively. This is specifically relevant to GMX as many of our users struggle to access GMX data.

1. Interoperability

: As our platform expands to support multiple EVM-compatible chains it promotes interoperability between different blockchain ecosystems.

Fund Streaming:

Yes, we accept.

PROTOCOL DETAILS

NA

DATA AND REPORTING

Is your team prepared to create Dune Spells and/or Dashboards for your incentive program?:

NA

Does your team agree to provide bi-weekly program updates on the GMX Forum thread?:

Yes, we agree.

Does your team acknowledge that failure to comply with any of the above requests can result in the halting of the program's funding stream?

Yes.