# Variational - Protocol for Leveraged Trading on Arbitrum Sepolia Testnet

\*\*Main Task:\*\* Develop software for automated trading on the platform.

\*\*Specifications:\*\*

- The software must either have an interface or be console-based (please specify cost and completion timeframe for both interface-based and console versions separately).

- In logs (or interface if applicable), display the number of accounts that have completed work and total accounts in operation. For example: [16/100] - 16 accounts out of 100 have completed work.

- Must have the ability to randomize accounts (add enable/disable shuffling in settings).

- Must have proxy support capability. Proxies can be of 2 types (type to be switched in settings): regular - 1 proxy = 1 account; mobile - IP changes for each account after request to link. If proxies are residential 1:1 with accounts, they are written in a separate file in format ip:port@login:pass. Mobile proxies with IP change via link are also written in file format ip:port@login:pass|refresh\_link, if settings specify 10 threads, then 10 proxies are needed.

- Generate random User-Agent and other necessary data for each account when connecting to sites, to prevent wallet linking in case of data verification by sites.

- Add ability to enable or disable logs in settings. Log should record position opening and closing with volume and time specification (name log as number-of-wallets\_date\_launch-time.txt).

- Must have 2 launch options (selectable in settings):

1. Launch in parallel threads. Add thread count selection in settings. Also add launch delay in settings (in seconds). For example, if we specify 10 threads, 10 wallets start working, with launch delay set from 0 to 3600 seconds, these 10 wallets will start randomly within an hour.

2. Launch with branches using multiple wallets. Settings include wallet range for launch in one branch. For example, specify 2-5 in settings. If 4 wallets are randomly selected from the range, then it's determined how many will open long and short positions, say 1 long and 3 short. Open long position for random amount (described in points 6-7 below), short positions must open for the same total amount split among 3 wallets (randomly). Then wait for closing delay (point 9 below). While waiting for closure, start new branch with several wallets. A branch can remain open for long, so number of threads (parallel branches) should be added to settings.

- Track transaction count and volume, and save. Must be able to display statistics for wallets with specified wallets, transactions, and volume.

- Statistics database must be maintained, if there are many launches with different wallets, entire database is preserved. When displaying wallet statistics, show only wallets that were launched last time (private keys currently in key file). If there was alternation, for example launched first 5 wallets, then other 5, then first again, transactions and volume are added to previously saved data.

- Add delay between trades in settings (in seconds from-to), after each trade delay is chosen randomly from range.

\*\*What the software should do:\*\*

1. Choose number of transactions for future work. Add option in settings to specify work variant (transaction count or volume). If transaction count is selected, random number is chosen from specified range (7-10 transactions) and selected number of transactions is executed. If "volume" variant, specify desired volume (10000-15000), random number is chosen from specified range, and trading continues until chosen volume is reached.

2. Add email to Waitlist. Using Firstmail.

3. Connect to platform.

4. Create portfolio.

5. Make deposit.

6. Account automatically receives 10000 test USDC.

7. Make deposit of 10000 USDC.

8. Select asset for trading.

- Add ability in settings to choose randomly from specified assets, for example specify "BTC, ETH, SOL" and asset is randomly selected from this list. Asset is chosen randomly for each position.

9. Choose position direction. Add ability in settings to select position direction (long only, short only, or random value).

10. Choose volume (leverage for any asset x5). Add percentage selection of available volume in settings (also range from which value is chosen randomly).

11. Open position. Make approval for USDC volume needed to open position.

12. Close position. Position closes after number of seconds specified in settings (range from-to is specified and random value is chosen).