

Date	Start Time (24h)	End Time (24h)	Duration (hours)	Week Subtotal	Week Overtime	Notes
<b>Week 8</b>	<b>6/19</b>	<b>6/25</b>				
2021-06-19	0:00	3:00	3			Designing brute-force resistant client-side mechanisms so Authenticator becomes a must
2021-06-19	13:00	21:00	8			Attacking methods just designed and identify weaknesses; Iteratively improve the methods; Identified one successful method that truly increased resistance by 1 million times
2021-06-20	11:00	20:00	9			Developed and self-validating new algorithms to compose with the one successful method; Identified a feasible, successful direction; Benchmarking and analyzing various GPU/ASIC-hard hash functions; Identified one ideal candidate; Research private-key signing mechanisms and feasible generic hardware. Identified feasible candidates; Composed an overall solution with high likelihood of success and strong resistance to brute-force attack, making authenticator truly necessary at client side
2021-06-23	19:00	0:00	5			Planning and write-up for 70 TODO tasks before launch.
2021-06-24	0:00	5:00	5	30		WalletConnect and dApps integration research, review, and planning
<b>Week 9</b>	<b>6/26</b>	<b>7/2</b>				
2021-06-26	13:00	17:00	4			Staking research and blockchain code inspection and analysis, and write-up
2021-06-27	21:00	0:00	3			OTP input box user experience improvement and bug fixes. Remove ganache network and dev relayer in production setting. Fix balance state issues
2021-06-28	0:00	7:00	7			Feature: restore wallet from authenticator. Code review on Ivan's smart contract. Research and improve QR code capturing; Fix smart contract bugs; Fix client bugs: balance display, progress. Many UI improvement: address parsing, sider, error handling, messaging, layout, presentation. Client configuration and state management improvements
2021-06-28	20:00	0:00	4			Client security research and wiki writeup
2021-06-28	0:00	3:00	3			(Same as above)
2021-06-29	16:00	17:00	1			Research and analysis: wallet token ownership for HRC20, 721, 1155;
2021-06-29	18:00	21:00	3			Code review (UI changes on external link,; Implementation for set recovery address
2021-06-30	12:00	14:00	2			Code review, utilities, and UI changes on address normalization
2021-06-30	19:00	22:00	3	30		More address normalization; code review on setting recovery address, explorer link, and UI changes; Finalizing pre-launch high priority UI changes: remove wallet naming screen, use mnemonic words for names, support one style address everywhere, use safe conversion everywhere, use checksum address internally, complete implementation on set recovery address initially and later, batch update external links, make recovery address mandatory by default, set mandatory default daily limit and 1 year lifespan, 4 significant digits for currencies; Various bug fixes for handling addresses and converting addresses, proper error message and user feedback on address format and other types of errors; avoid name collision on name generation; use Harmony as issuer in authenticator links; fix bugs in fetching wallet balances; fix bugs in displaying balances across networks; fetch wallet stats and balances remotely at reasonable pace; added utility for translating smart contract wallet stats into local stats; added better error message handling at relayer and make error parsing consistent at client; fix issues in handling empty addresses; better network error handling, timeout mechanism, and user feedback; show existing wallet in the same network as recovery options; wallet address selector component; debugging gas limit and gas price and use better settings in relayer to reduce blockchain state error; versioning of QR code reader; auto focus OTP code input; fixed bugs in address parsing in Restore page
2021-07-01	0:00	6:30	6.5			(Same as above)
2021-07-01	22:00	0:00	2			In-depth staking research and analysis Loopring, Gnosis Safe, and Lido (research, mechanisms, contracts)
2021-07-02	0:00	4:00	4			(Same as above) + planning, and research on command line utility and NFT marketplace
2021-07-02	9:00	11:30	2.5			Research, feedback, and proposals on approaches for wallet asset analytics. Code review; Planning revision; New researcher onboarding; More research into NFT trading
2021-07-02	15:00	16:00	1		16	Code review (#33), wallet analytics research, guidance, and proposals (dune analytics, Graph Protocol, local RPC, local blockchain scan, relayer interception)
<b>Week 9</b>	<b>7/3</b>	<b>7/9</b>				
2021-07-05	13:00	0:00	11			Secure commit-reveal flow; Abstraction of commit-reveal flow to core library; Integration with abstraction of flows at client; Smart contract versioning; Smart contract commit lookup; Client-side migration utility; warning for outdated wallet. Minimum wallet version requirement. Backward compatibility; Restructuring web client code for better modularity; Multiple bug fixes; Debugging versioning bug and commit hash matching issues; Relayer rate limiting testing, debugging, deployment; Dev and deployment scripts; Improve camera ask-permission experience; Fixed issues when multiple cameras are present
2021-07-06	0:00	2:00	2			(Continued from above)
2021-07-06	11:00	12:00	1			Researchers onboarding, Q&A, and followup

2021-07-06	16:00	17:30	1.5			Code review of wallet usage statistics display; Fix issues present in code review; Improve wallet usage statistics display; Provide feedback;
2021-07-06	17:30	0:00	6.5			CLI skeleton; more abstractions to core library (name generator, store, storage, message, logger, and others); CLI command parser; CLI multi-threaded worker; CLI config module; CLI scan command implementation and working version + video
2021-07-07	0:00	4:30	4.5			(Continued from above)
2021-07-07	19:00	22:00	3			Sync with SlowMist, and Q&A. Review of audit progress report. Detailed response, analysis, and clarifications to progress report; Correct issues that are erroneously raised; Providing further instructions for auditing;
2021-07-08	12:30	13:00	0.5	30		Code review of work in progress; Sync with Giv on NFT and token related tasks; Analysis of task complexities; Provide guidance and suggestions;
<b>Week 9</b>	<b>7/10</b>	<b>7/16</b>				
2021-07-10	3:00	6:00	3			Fix scan command blink issue; Architecture improvement on CLI. Use ES module everywhere; Complete abstraction of API calls, flows, and various other functions in core library and migration from web client. CLI initialization sequence; Babel configuration and setup; Hide-relayer code review and revision
2021-07-10	14:00	14:30	0.5			Sentry capturing code review and revision
2021-07-10	20:00	0:00	4			CLI v0.1 release; fully functional CLI store; fully functional CLI make, list, send features; core flow improvement and CommonJS compatibility issue fix; pkg cross-platform binary builder setup; demo video, debugging, and testing; command line flag and output components and improvements
2021-07-11	0:00	9:00	9			(Continued)
2021-07-11	19:00	21:00	2			CLI bug fixes, path compatibility with virtual filesystem in binary, release management, uncaught exceptions in store
2021-07-12	11:00	13:00	2			Code review: mobile responsiveness; Significant revision on code review; Enable mobile responsiveness and appropriate UI for all pages and components, using newly created shared module
2021-07-12	17:00	22:30	5.5			Auto-triggered recovery; Research; optimization for gas usage upon receiving funds (necessary for recovery feature's compatibility); wallet security version management; Debugging and testing
2021-07-13	1:30	3:30	2			Sync with SlowMist on issues discovered; Respond to non-issues and summarize pre-existing issues already identified; Formulate on next steps
2021-07-13	14:00	15:00	1			Respond to issues identified by researchers from Common Prefix and release emergency patches on one valid issue; Impose migration requirements and selective warning for affected wallets; Fix client bug of failing to detect empty address in bech32 format
2021-07-14	20:00	21:00	1	30		ERC20,721,1155 support from smart contract and ability to automatically track tokens from contract; Commit-reveal support for token operations; Relayer support for token operations
2021-07-14	20:00	0:00	4			ERC20,721,1155 support from smart contract and ability to automatically track tokens from contract; The design thereof; Console-based debugging and testing; Commit-reveal support for token operations; Relayer support for token operations
2021-07-15	0:00	2:00	2			(Continued)
2021-07-15	10:30	12:00	1.5			Wallet upgradability research, analysis, identificatin of security issues, and devising secure and practical proposals for implementations
2021-07-15	14:00	15:30	1.5			Initial review of preliminary audit report from Common Prefix, provide initial response, and agree on next steps
2021-07-16	20:00	21:00	1		10	Custom test assets in ERC20,721,1155 for debugging and testing;
			Regular	120		
			Overtime	26		For meeting initial product release + planning deadline, and goals for launching to support NFT and HRC20 tokens (bridged assets)
			Total	146		