SecLabX

Your partner in Embedded Systems, IoT, Security, and Blockchain

Company Overview

SecLabX provides high-end development and consulting services in embedded systems, IoT, security, and blockchain. We support clients across Europe and the USA with tailored engineering solutions, SDK development, secure integration, and full-stack debugging.

Why SecLabX

- Over 12 years of experience in secure systems
- Security-first mindset for embedded and blockchain systems
- Senior-only engineering team with deep protocol expertise
- Fast delivery without compromising quality
- Trusted by global clients in fintech, medtech, and Web3

Core Services

- **Embedded:** BLE, USB, WiFi, NFC, RTOS, Linux, secure bootloaders
- **Security:** TLS, SCP03, SE/HSM, authentication, encryption, smartcards
- **Blockchain:** Smart contracts, crypto SDKs, Web3, RPC integration
- **Debugging:** Power profiling, side-channel, reverse engineering
- **UI/UX:** LVGL, React, React Native, Electron
- **System Design:** Architecture, PCB, automation, testing

Technologies & Platforms

- **Languages:** C, C++, Python, JavaScript, JavaCard, Solidity, Rust
- **Frameworks:** React, React Native, Node.js, Firebase
- **Platforms:** Android, iOS, Windows, macOS, Linux, Web
- **Hardware:** ARM (NXP, ST, Nordic, Cypress), RISC-V (ESP32), Raspberry Pi

Specialized Expertise

- Ledger, MetaMask, Trezor, Sparrow SDKs
- Bitcoin, Ethereum, Solana, Cardano, Tron, TON, Ripple, ERC20, SPL
- Secure communications, Web3 standards, payment flows
- RPC nodes: QuickNode, Infura, Alchemy, Nownodes, Blockstream

Hardware Wallets & Crypto Security

- Secure embedded firmware for hardware wallets (including Ledger-compatible platforms)
- Custom crypto recovery devices with tamper-resistant flows and key handling logic
- Companion apps (mobile & desktop) for secure device communication and transaction workflows
- Integration of smartcards and secure elements for hardened key storage and signing
- Cryptographic firmware signing and update validation using HSM-backed pipelines
- SDK integration with third-party wallets, including MetaMask and Sparrow

FDA-Approved Medical Device Software

- Embedded drivers and secure communication layers for connected medical devices (ARM Cortex, BLE)
- Custom communication protocol featuring:
  - Secure BLE device pairing and encrypted communication
  - Mutual authentication using X.509 digital certificates
  - End-to-end encrypted and authenticated messaging
- Real-time BLE performance optimized for low-latency, high-reliability medical use cases
- Delivered production systems successfully approved by the FDA in collaboration with regulatory and system engineering teams

Contact

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