

Active Maintainers/Creators

Virtual Machine **VIREX** Assembly Language **SASM** Compiler **ORIN** Editor Support **VS Code** License **GPL3**

VIREX (VIRtual EXecuter) is a clean-room virtual machine built with clarity, extensibility, and education in mind. The project is maintained by two core developers who each own a unique layer of the system.

=== "Soham Metha"



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[![]](https://img.shields.io/badge/Language-C-blue)
[https://en.wikipedia.org/wiki/C_(programming_language)] [![]
(https://img.shields.io/badge/Project-VIREX-success)]() [![]
(https://img.shields.io/badge/Project-SASM-success)]()
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> **Role**: Lead Developer

> **Modules Owned**: VIREX VM, SASM Assembler, VS Code Extension, Docs

- Designed the **VIREX** Virtual Machine architecture.
- Developed the **SASM Assembler** and complete instruction set.
- Built tooling: AST visualizer, debug tools, and VS Code syntax extension.
- Authored all core documentation.
- Maintains the monorepo, versioning, and long-term roadmap.

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> "VIREX is a hands-on way to explore systems programming, not just study it."
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=== "Omkar Jagtap"



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(https://en.wikipedia.org/wiki/C_(programming_language)) [![]  
(https://img.shields.io/badge/Project-ORIN-orange)]() [![]  
(https://img.shields.io/badge/Target-SASM-lightgrey)]()
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> **Role**: Compiler Engineer - ORIN
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> **Modules Owned**: ORIN Compiler (WIP), Custom Hashtable  
Implementation
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- Designing and implementing ****ORIN****, the high-level language compiler targeting SASM
- Handles the full compilation pipeline: parsing, IR generation, and SASM output
- Exploring advanced features like expression optimization and static analysis

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> "ORIN aims to make high-level programming compatible with low-level control."
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Contact & Community

- GitHub: github.com/sohammetha/virex
- Interested in contributing? Check out [CONTRIBUTING.md](#)

VIREX is open. Hackable. Minimal. Built for builders.

References

- [Tsoding](#)
 - [Dr Birch](#)
 - [Low Byte Productions](#)
 - [Cobb Coding](#)
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