

!!! info inline end ""

```
<figure markdown="span">
  ![Image](assets/credits.png)
  <figcaption>Active Maintainers/Creators</figcaption>
</figure>
The project is maintained by two core developers who each own a unique
layer of the system.
```

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

!!! tip ""

```
=== "Soham Metha"
  ![Soham's Avatar](https://www.github.com/Soham-Metha.png){
width="120px" style="border-radius: 50%;" }

  > Role: Lead Developer <br>
  > 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.

  > "VIREX is a hands-on way to explore systems programming, not just
study it." <br>

  []
  (https://en.wikipedia.org/wiki/C_(programming_language)) [![]
  (https://img.shields.io/badge/Project-VIREX-success)]() [![]
  (https://img.shields.io/badge/Project-SASM-success)]()

=== "Omkar Jagtap"
  ![Omkar's Avatar]
  (https://www.gravatar.com/avatar/00000000000000000000000000000000?
d=mp&f=y){ width="120px" style="border-radius: 50%;" }

  []
  (https://en.wikipedia.org/wiki/C_(programming_language)) [![]
  (https://img.shields.io/badge/Project-ORIN-orange)]() [![]
  (https://img.shields.io/badge/Target-SASM-lightgrey)]()

  > Role: Compiler Engineer - ORIN <br>
  > Modules Owned: ORIN Compiler (WIP), Custom Hashtable
```

## Implementation

- 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
- > **"ORIN aims to make high-level programming compatible with low-level control."**

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## Acknowledgments

We'd like to thank:

- [Tsoding](#), [Dr Birch](#), [Low Byte Productions](#), [Cobb Coding](#) for foundational resources.
- The open-source ecosystems around JVM, and language tooling.
- Friends and testers who offered feedback during early development stages.

## Contact & Community

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

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

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