

The Kestrel-3 open source home computer.

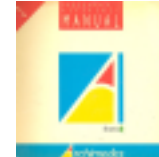
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<http://sam-falvo.github.io/kestrel>

Vision



- Only keyboard and monitor required.
- Usable without attached storage.
- Boots into a language environment.
- Encourage software and hardware hacking.

Mission



- Hardware and software stack entirely open source.
- 64-bit RISC-V ISA.
- Entire stack understandable by one individual.
- Hardware and software documented in single volume.

Accomplishments



- Cross assembler implemented in Python under Linux.
- First-generation emulator in C under Linux.
- Machine-language monitor completed.
- User's guide hosted at <https://leanpub.com/k3ug>
(Imagine a 64-bit Apple I without BASIC.)

Desiderata



- Forth programming environment in firmware.
- Port Kestrel-2's OS (STS) to Kestrel-3.
- SD, SDHC, SDXC drivers.
- Choice of firmware: Forth, Oberon, Scheme, ...
- Self-hosted development (assembler, compiler, etc.).