SiFive's RISC-V computer:

An open software development platform for RISC-V SoCs

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Introducing SiFive

• Founded by RISC-V Inventors Krste Asanovic, Andrew Waterman, and Yunsup Lee

• Fabless semiconductor company building customizable SoCs

• Open SoC Platforms to encourage software/ecosystem development
Why SiFive

SiFive is fast time-to-market, low-cost, low-risk, customizable
SiFive’s SoC Platforms

**Freedom Unleashed**

- **Linux and applications requiring full OS support**
  - SiFive U5 Coreplex Series
    - Advanced, multicore RISC-V cores
    - 1.6GHz or higher
    - RV64IMAFDC
  - High speed peripherals including PCIe 3.0, USB 3.0, Gigabit Ethernet, DDR3/DDR4

**Freedom Everywhere**

- **Embedded microcontrollers, IoT, and wearables**
  - SiFive E3 Coreplex Series
    - Small and efficient RISC-V core
    - Support for compressed mode
    - RV32IMC / RV32EMC
  - On chip RAM and ROM
Freedom Unleashed Demo

- Freedom U500 Platform
- SiFive U5 Coreplex (RV64IMA)
- Boots Linux 4.6.2 from SD card
- PCIe Root Complex
  - Interfaced to PCIe Switch
  - Supports up to 5 PCIe cards
- NIC (SSH server, ping, etc…)
- USB Hub (Mount USB Flash Drive)
- Dev kit + Bitstream available now! [dev.sifive.com](http://dev.sifive.com)
Freedom Everywhere Demo

- Freedom E300 Platform
- SiFive E3 Coreplex (RV32IM)
- Self Hosted System
- RISC-V Standard JTAG Debug
- Microsemi SmartFusion 2+ FPGA
- Tutorial Tomorrow
Calling all RISC-V Developers

• Both Freedom platforms available now on FPGAs
• Port your SW now!

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