

Press Release

Future Corporation and AB Open have built a unique PC based on RISC-V Custom-built personal computer features open-hardware front panel.

TOKYO, JAPAN, 30th November 2021

Future Corporation and AB Open, which is an open hardware consultancy, are glad to announce that these two companies have successfully built a unique personal computer based on the free and open source RISC-V instruction set architecture.

Following AB Open's earlier success in [being one of the first in the world to assemble a complete RISC-V PC](#), Future Corporation partnered with the company to build a more powerful version based around SiFive's HiFive Unmatched board.

To this, AB Open has added a GNU/Linux-based operating system, dedicated graphics processing card, high-speed solid-state storage, and Wi-Fi connectivity, housed in a custom-designed chassis which includes a smart front panel with OLED display.

This panel communicates with the underlying PC via a custom Python application and provides at-a-glance monitoring of system statistics including CPU and memory usage, component temperatures, and more.



“We are excited at the many and diverse opportunities presented by the RISC-V architecture, which promises to accelerate the pace of innovation for a great number of application domains.”, comments Kunihiro Ishibashi, Future Corporation Senior Vice President. Adding “This collaboration builds upon the SiFive HiFive Unmatched to create a RISC-V Linux PC, is just one part of a wider programme of activity and we look forward to working together with AB Open on future RISC-V initiatives.

[AB OPEN MANAGING DIRECTOR, ANDREW BACK COMMENT]

We are thrilled to have been chosen by Future Corporation for this project, which truly speaks to the company's interest in embracing the very latest technologies and its confidence in how RISC-V can be used in a range of domains, from gaming to high-end embedded systems. Interest in the free and open source RISC-V architecture is growing daily, and it's projects like this which help to showcase its potential. We want to thank Future Corporation for partnering with us to work on the project.

As part of the companies' commitment to open source, AB Open and Future Corporation have released the hardware design files and software source code for the custom OLED front panel under a permissive licence. These files can be downloaded from GitHub now at github.com/abopen/hifive-unmatched-front-panel.

MULTIMEDIA

A video showcasing the Future RISC-V PC is available at vimeo.com/644341183 to support this release.

ABOUT THE FUTURE RISC-V PC

The Future RISC-V PC is based on the SiFive HiFive Unmatched single-board computer and includes four high-performance Freedom U74 and one S7 processor cores, 16GB of DDR4 memory, 1GB of NVMe storage, and an NVIDIA GeForce GT710 graphics processor. This hardware makes it the most powerful RISC-V development system available to the public.

ABOUT FUTURE CORPORATION

Future Corporation in Japan is an IT consulting & service business with an eye on innovation through the use of the latest technologies.

Since its founding in 1989 the company has designed and improved the businesses of its clients through developing systems that integrate business management with IT. Its clients come from various industries including finance, manufacturing, distribution, and logistics.

Future Corporation has also created its own new services based on the know-how it accumulated in its operations.

The company aims to contribute to society by promoting innovation and creating new values for clients that is based on the strengths of connoisseurship and implementation ability of the latest technologies, such as AI and robotics.

More information is available at future.co.jp/en.

ABOUT AB OPEN

AB Open is an open hardware and technical communities consultancy based in Halifax, UK. AB Open's clients include semiconductor companies, component distributors, equipment vendors, and service providers.

More information is available at abopen.com.

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