



# SERV, QERV and HERV. Meet the world's smallest RISC-V cores

The award-winning SERV is the world's smallest RISC-V CPU

Wow! Tell me more

SERV fact sheet

- ✓RV32I compliant
- ✓Runs Zephyr
- ✓M&C extensions
- ✓ASIC&FPGA-proven
- ✓Formally verified

Did I mention that it is also really really small?

by Danjiro Daiwa

Ok, how small?

Lattice iCE40	196LUT 164FF
Altera Cyclone 10LP	239LUT 164FF
AMD Artix7	125LUT 164FF
SkyWater 130nm	7901um2 2.1kGE

Wow! So SERV can replace my old 8-bit CPUs?

Moore's Law: The number of transistors on microchips doubles every two years

Wow! That's wonderful. But is SERV actually used anywhere?

Of course! It's been used in

- Cranial implant
- DDR3 initialization
- Power management
- GPS synchronization
- USB-UART converter
- Sensor data aggregation

Wow!

Want to know more? Check out these awesome SERV videos

Wow! That's wonderful! But what if I need more speed and can afford a few more gates?

That's where we come in

3x Faster 20% larger

5x Faster 50% larger

Want to try out SERV already today? Check out the project site

Want to discuss a commercial license for SERV or just have a question? Or perhaps interested in other RISC-V services? Talk to us at Qamcom

Did you know you can fit 10000 SERV cores into a single FPGA. How many cores can you fit into your FPGA? Find out with the CoreScore project