Democratizing Access to Supercomputing with Open Hardware

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2013 Open Hardware Summit
The $99 Parallella Board

- Zynq dual core ARM A9 (with FPGA Logic)
- 16-core Epiphany Coprocessor
- Gigabit Ethernet
- uUSB
- uHDMI
- uSD
- 5V DC
- 1GB SDRAM
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THE FUTURE IS PARALLEL!!!!!!!!!!

No Computing

Parallel Computing

No Electronic Computing - 1943

“Von Neumann Age” Serial Computing 1943-2013?

Parallel Computing 2013-??
How the $#%@% Do We Program This Thing?
10 Reasons to Go Open

- Tired of all the BS
- Enables a community
- Better support
- Technical feedback
- Easier to partner

- Fear, Uncertainty, Doubt
- Visibility
- Scale
- Life is too short
- It’s more FUN
The Eve of KS Launch (Sept-2012)
Working Prototype (Oct-2012)
A brutal campaign (Oct-2012)
Post KS Celebration (Nov-2012)
Working Cluster (Jan-2013)
First Layout (Mar-2013)
First Power-up (Apr-2013)
Chaos! (May/June-2013)
756 Core Parallella Cluster (Jul-2013)
First Shipments (Aug-2013)
Almost there...(Sep-2013)
Check Us Out @ the MIT Table