

This edition is sponsored by



DEVELOPMENT KITS FEATURE

Raspberry Pi Home Automation Part 3: Putting it All Together With Home Assistant

JEREMY S. COOK, FREELANCE TECHNOLOGY WRITER

Setting up and running your own Raspberry Pi home automation system is both fun and useful, and lets you have control of your devices without depending on "the cloud." I did a quick overview of my home automation setup here, as well as how to prepare devices for integration with Tasmota in a Part 2 followup. In this part 3 we'll put everything together with Home Assistant (HA), my chosen Raspberry Pi home automation platform.

[Read More +](#)



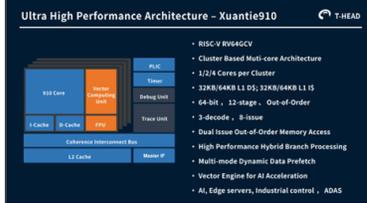
MEMORY & STORAGE FEATURE

Understanding SSD Performance Claims

STEFFEN ALLERT, EUROPEAN SALES ORGANIZATION AT
HYPERSTONE

The age of Big Data is placing increasing demands on storage and processing. Correspondingly, there is a need for faster data transfer speeds. When customers choose solid-state drives (SSDs), they often go by the datasheet's performance figures. However, the numbers in the datasheet don't accurately represent typical SSD performance.

[Read More +](#)



PROCESSING & IP FEATURE

Hot Chips: Alibaba's Ultra High-Performance Superscalar Processor ? Xuantie910

ABHISHEK JADHAV, RISC-V AMBASSADOR

At the HotChips conference 2020, Alibaba announced the Xuantie-910 RISC-V core which is an ultra high-performance processor with an AI acceleration engine based on RISC-V RV64GCV.

[Read More +](#)

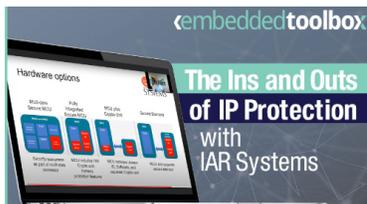
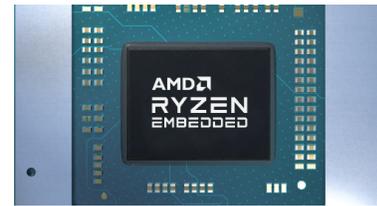
PROCESSING & IP NEWS

AMD Unveils AMD Ryzen Embedded V2000 Processors

TIERA OLIVER, ASSISTANT EDITOR, EMBEDDED COMPUTING DESIGN

AMD launched a new product in its Embedded processor family, the AMD Ryzen Embedded V2000 Series processor.

[Read More +](#)



EMBEDDED TOOLBOX: INTERACTIVE INTERVIEW SERIES

The Ins and Outs of IP Protection for Embedded Systems

BRANDON LEWIS, EDITOR-IN-CHIEF, EMBEDDED COMPUTING DESIGN

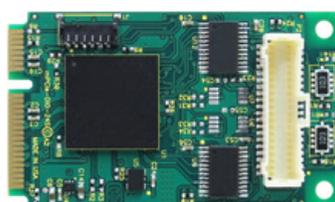
According to analysts, IP theft costs industry a staggering \$500 to \$600 billion per year. With more than half a trillion dollars at stake, you'd think that IP protection would be top of mind for many electronic device manufacturers.

[Read More +](#)

SPONSORED PRODUCT



SPONSORED PRODUCT



SPONSORED PRODUCT

congatec

More edge computing power

[View Product](#)

ACCES I/O
Products, Inc.

mPCIe-DIO Series: PCI
Express Mini Cards for Easy
and Flexible Digital I/O
Expansion

[View Product](#)



Kontron

Kontron EvoTRAC S1901
Platform

[View Product](#)

ELECTRIC VEHICLES FEATURE

Low Voltage Battery Monitoring for High Voltage Electric Vehicles

CHRISTOPHER GOBOK, PRODUCT MARKETING AND OPERATIONS MANAGER

If you are not already driving an electric vehicle (EV)?hybrid electric vehicle (HEV), plug-in hybrid vehicle (PHEV), or all-electric vehicle?chances are, you may be soon. Range anxiety has become a thing of the past. You can now help preserve the environment without worrying about being stuck in it.

[Read More +](#)

EDGE COMPUTING FEATURE

What Does the Convergence of AI and IoT Mean?

JASON WHITE, FREELANCE TECHNOLOGY WRITER

If you sit down and make a list of promising technologies, the two names that would most likely top it are Artificial Intelligence and the Internet of Things. Although both the technologies are powerful individually, AI as a source of intelligence, and IoT being the only technology making inter-device connections possible - their convergence becomes a catalyst of smart connections.

[Read More +](#)



DEV KITS NEWS

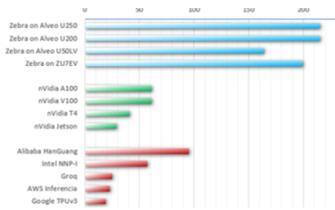
On Semi's Motor Development Kit Prioritizes Energy Efficiency

RICH NASS, EVP, OPENSYSYSTEMS MEDIA

Design engineers love development kits, for a bunch of reasons. One, they enjoy seeing how things work and the kits expose the technology. Two, they like to tinker with the boards and see if they can get the board to do

what it?s intended to do, as well as some things that it may not have been intended to do. And three, it gives them a nice head start on the development path.

[Read More +](#)



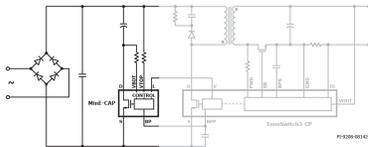
MACHINE LEARNING INFERENCE NEWS

Mipsology Zebra on Xilinx FPGA Beats GPUs, ASICs for ML Inference Efficiency

TIERA OLIVER, EDITORIAL INTERN, EMBEDDED COMPUTING DESIGN

Mipsology announced that its Zebra AI inference accelerator achieved the highest efficiency based on the latest MLPerf inference benchmarking.

[Tune In +](#)



POWER ELECTRONICS NEWS

Power Integrations? MinE-CAP IC Reduces Significantly AC-DC Converter Volume

RICH NASS, EVP, OPENSYSYSTEMS MEDIA

Aimed at high power density, universal input AC-DC converters, the Power Integrations MinE-CAP IC significantly reduces the size of the high-voltage bulk electrolytic capacitors required in the offline power supplies used in compact chargers and adapters.

[Read More +](#)

SPONSORED WHITE PAPER

IoT Modules Hardened with End-to-End Security

TELIT

As awareness of the transformative nature of 5G is increasing, the industry is slowly waking up to the enormous challenge of securing not only the networks but also all the things these networks connect and the vital data they carry. When it comes to the Internet of Things (IoT), the challenges of security and the stakes involved couldn?t be more significant.

[Read More +](#)

SPONSORED WHITE PAPER

Validation at Any Location. 3 Musts for Uninterrupted Testing

NATIONAL INSTRUMENTS

If 2020 has shown us anything, it's that the line between work and home has become incredibly blurry, dissolving the means for compartmentalizing our lives. How do we do validation at home? And not just until the pandemic is over, but long-term, sustainably? do we have a plan to translate the lab to the kitchen table, or the home office, or the garage?

[Read More +](#)

SPONSORED WHITE PAPER

15 Ways to Maximise the Value of Unit Tests in Safety Critical Projects

QA SYSTEMS

In safety-critical software development, unit testing is mandated by standards. However, not all tests are built equal. This paper discusses approaches you can take with your unit testing to maximize their contribution to the development process.

[Read More +](#)



Introduction to FPGA Zynq? UltraScale TM

Sponsored by: Acromag

Date: December 8; 2:00 p.m. ET

[Register Now](#)

For additional Webcasts, check out the [Broadcast Archive](#).

