Smart M3
in Embedded Devices
Communities

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OVERVIEW

Smart M3 particularly fits to linux-based embedded devices (ARM).

> Linux based C sib is easy to compile and install as ARMHF packages.
(Runs pretty well on Raspbian)

> Most of the projects involving these devices are close to the SOFIA scenarios (Smart Environments)

These are principally used in education and research, but they are widely diffused even as industrial platforms.

The most big community is Raspberry Pi (Arduino Galileo and mostly Parallela are even more interesting considering hardware and they are growing up as communities).

Raspberry Pi and Intel Galileo hardware platforms

Rapberry Pi:

- ARM1176JZF-S (ARMv6k) 700 MHz.
- Memory   256 MB(Model A)
- 512 MB (Model B rev 2)

Price: 35 euro

Intel Galileo:

- 400MHz 32-bit Intel Pentium instruction set architecture (ISA)
- 512 KBytes of on-die embedded SRAM
- ACPI compatible CPU sleep states supported
- 10/100 Ethernet connector
- Full PCI Express* mini-card slot, with PCIe 2.0 compliant features
-   USB 2.0 Host connector

Price: Still to define

Parallela Board hardware platform

- Zynq-7000 Series Dual-core ARM A9 CPU (Z-7010 or Z-7020)
- 16 or 64-core Epiphany Multicore Accelerator
- 1GB RAM
- MicroSD Card
- 2x USB 2.0
- 10/100/1000 Ethernet
- HDMI port

- Ships with Ubuntu OS

Price: 99 $

Conclusions

Opportunities:

> These devices have extremely big **communities** and can give to SMART-M3 a huge visibility.

> As open source, projects can be extended and more groups can contribute.

How to succeed:

Show how Smart M3 solutions can improve the state of the art of the current Raspberry based projects.

What to provide:

- Very clear programming model, perceived as "simple" from the developer.

- Ontology modeling guidelines

- **Reference Web Site** with tutorials