

Embedded GUI Framework

(Now with more linux!)

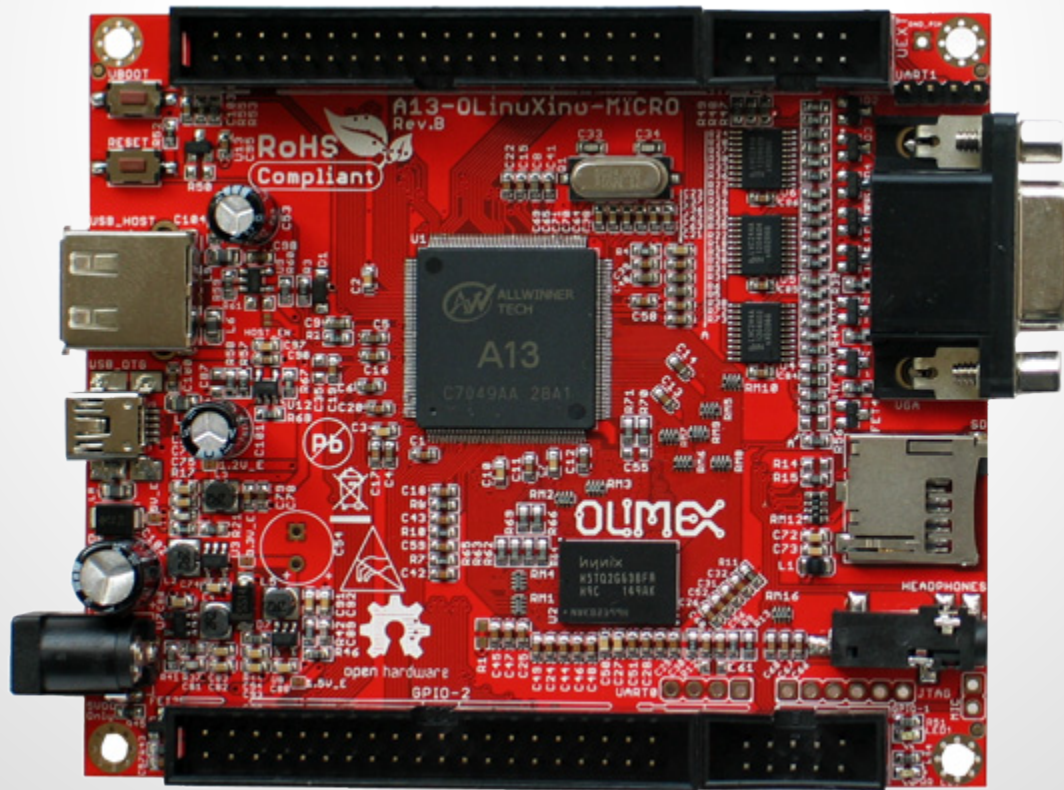
Ultimate Goals for the new hardware

We envision a single board linux computer that is:

- small (around 1 inch by 2 inch)
- easy to use (libraries for low level IO in major languages)
- extensive low level I/O capabilities
- low power (<5W), low voltage (5V)
- low cost (We expect/hope to be able to sell these for less than an arduino, and for ~\$40 with a color touchscreen)
- designed to be integrated into a finished product
- Open Source!

The Hardware

'OLinuXino-Micro' is a pretty cool open source single board linux computer



This sounds like a Raspberry Pi...

It is not a Raspberry Pi.

General specs...

A13 Cortex A8 processor (1Ghz)

Mali400 GPU

USB host and OTG

SD card OS storage

Audio input/output

256 or 512 MB DDR3 RAM

24bit parallel touchscreen interface

I2C, UARTS, SDIO2.0, etc...

Allwinner A13...?

This is a chinese SOC that is extensively used in low cost tablets and smartphones.

"Actually" GPL linux kernel mostly. (They tried, at least...)

Software Goals

- Develop a *drop in* interface for embedded developers to rapidly incorporate touchscreens into projects.
- Create a framework for creating touchscreen GUIs
 - develop a simple library people can use for embedded devices running with linux
 - C/C++

Usage

- Usage:
 - linux will boot, run a lightweight application
 - full screen - no need for complicated window managers
 - graphical program for interfacing a device
- Use Cases:
 - **Vital Vio** - use the GUI as a controller for lights
 - **Spectrometer** - use the GUI as an interface so that it can be used as a standalone device

Fin

Thanks!!

Questions?

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