

Beware of the dog

The Caninos Loucos Labrador board is a brazilian **Single Board Computer**, with open Hardware and Software, that can be used to create Internet of Things applications.

It is composed by two boards: the **Labrador Core Board**, which has all features of a modern computer, and the **Labrador Base Board**, which expands its communication options by providing a large variety of connectors.

The modularity of the **Caninos Loucos Labrador** board allows for greater flexibility in hardware interface prototyping. Other Base Board models can be used, with specific functionalities required by custom applications.

This board set features ESD (electrostatic discharge) protection, is compact, resistant, and can be used in a range of applications, from personal projects to commercial applications.

MAIN BENEFITS

Modular

Suitable for any application segment

Customizable

An open architecture, malleable to your needs

Economic

Designed and manufactured in Brazil

Simple

National Engineering right in your hands

IDEAL FOR

Internet of Things applications
Cyber-physical systems
Robotic applications
Outside monitoring applications



CORE BOARD V.2

CPU: Quad-core ARM® Cortex™ 1,3GHzA9R4 CPU (ARM v7 instruction set)

GPU: Imagination PowerVR SGX544. Supports: OpenGL-ES 1.1 and 2.0, OpenGL 1.2.1, OpenCL 1.1

Memory: 2 GB DDR3 SDRAM
16GB eMMC

Operational

Systems: Android 5.0 / Linux 3.10.100

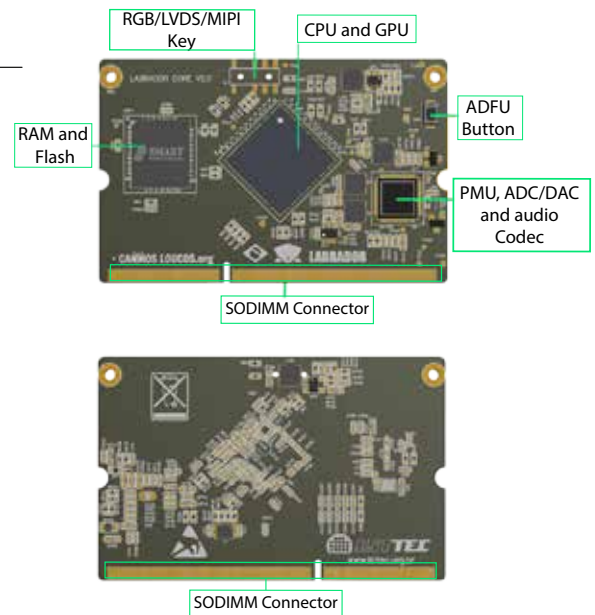
PMU: ATC2306C - Energy management and audio subsystem

Video: 1080p@60fps supports video encoding (including H264, H263, MPEG-4)

Expansion: 204 pins DDR3 SODIMM connector (male)

Dimensions: 67.6 x 42.2 mm

Weight: 10g



BASE BOARD M V.1.0

Storage: MicroSD Card Slot SD/SDHC/SDXC - up to 32GB

Ethernet: 10/100Mbps (RJ45)

Wireless: Wi-Fi 802.11 b/g/n 2.4GHz
Bluetooth 4.0
1 x infrared receptor (38kHz)

USB: 2 x USB2.0 HOST (type A)
1 x USB3.0 OTG (micro-B)

Display: 1 x HDMI 1.4 (type A), up to 1920x1080@60Hz
1 x LVDS-DSI para LCDs, up to 1920x1080@60Hz
1 x CVBS PAL/NTSC (PJ342 3,5mm)

Audio: HDMI output
Analog stereo output (PJ342 3,5mm)
I2S input/output
Embedded microphone

Camera: 1 x MIPI-CSI
1 x 8 bits parallel interface

LED: 1 x on/off (red)
1 x programmable (green)
1 x programmable (blue)

Buttons: 1 x on/off
1 x reboot
1 x ADFU

Power: 5~12V@2A
(internal diameter 2,1mm, external 5,5mm, positive center)

Expansion: 204-pins SODIMM connector (female), 40-pin header: 28 GPIOs (compatible with Raspberry Pi / supports UART, I2C, SPI, PWM and I2S)
ADC input

Debug: UART

Dimensions: 88mm x 81,3mm

Weight: 52,6g

