



Espotel develops continuously technology platforms, to speed up projects. These platforms are intended to provide our customers value in reduced project cost, faster time-to-market, reduced project risk, and be flexible enough to suit a multitude of applications. We also want to

introduce emerging technologies that are becoming available in mainstream applications. In Espotel, we see technology platforms as reference designs. The outcome of a development project may look very different to the proof of concept presented.

## Espotel UI platforms portfolio

**High-End: Jalli**  
Cortex-A8 @ 600 MHz  
Under development  
First prototypes 5/2011  
Price category: 100€

High power model for computation intensive and big screen applications.  
High resolution video and multimedia. Broad connectivity.  
Display sizes 5-10"

**Mid-range: Jhumar**  
ARM9 @ 450 MHz  
In production  
Releases 5/2010  
Price category: 50€

Sophisticated UI effects with Qt  
Animated UI effects.  
Limited video. Full audio.  
WiFi and Ethernet options.  
Display sizes 3.5-5.3"

**Low-end: Jaago**  
Cortex-M3 @ 72 MHz  
Under development  
First prototypes 11/2010  
Price category: 20€

Low-cost alternative  
Graphical icons, limited animations. Limited audio.  
Display sizes 2.4-3.5"



## Benefits of platforms

- **Time-to-market**  
Reduced HW design time by use of ready-made blocks. SW development can start immediately. Use of available 3rd party SW components.
- **NRE costs**  
Reduced design time means reduced design costs, less effort needed.
- **Design risk**  
Tested solutions and verified performance. Less surprises to come.
- **Production costs**  
Optimized combination of key components to achieve good performance and low price.
- **Flexibility**  
Any combination of custom electronics and mechanics designed around the pre-selected core system.



# Jaago HMI panel

Jaago provides premium user experience within reasonable cost. Full colour LCD with touch option provides a range of new possibilities to application where conventionally a custom B&W LCD has been used. Basic software components and complete software development environment can be provided.

The panel can be wireless hand-held battery operated device, wired but separate panel or completely integrated to customer product.

## Potential applications areas include

- Home automation panel
- Industrial remote monitor and control
- User interface of a machine
- User interface for an analyzer or ameter

## BOM price examples

Component		€
MCU	Type Cortex-M3	4,00
LCD	2.8" w/touch	8,72
Power supply	6-24 VDC	2,23
PCB		2,00
Total		16,95€

## Options:

Component	Type	€
Sug-GHz RF	868 MHz	2,70
2.4 GHz RF	IEEE 802.15.4	4,73
USB device	interface	0,86
CAN	interface	1,73
RS-485	interface	0,77
RS-232	interface	1,37
NAND Flash	256 MB 3,44	
Buttons	6x SMD switch	1,20

## Options:

MCU:	64k RAM, 512k Flash
Display:	2.4", 2.8", 3.2", 3.5"
User input:	Buttons only, touch only, or combined buttons and touch
Power:	6/12/24 VDC
Connectivity:	CAN, CanOpen, RS-232, RS-485, SDIO, Bluetooth LE, Zigbee/6LoWPAN (IEEE 802.15.4), Sub-GHz RF (433, 868, 915 MHz)
Storage:	NAND Flash, SPI Flash, SDIO Flash

## Demonstrator:

MCU:	Cortex-M3 @ 72 MHz 48k RAM 256k Flash
Display:	Color LCD 2.8" QVGA (240x320) with Touch
User input:	Touch screen 5-way navigation button
Power:	Battery USB charge
Connectivity:	Zigbee RF, USB device: Mass storage, CDC, HID

