Fabrice Blanc

Resume

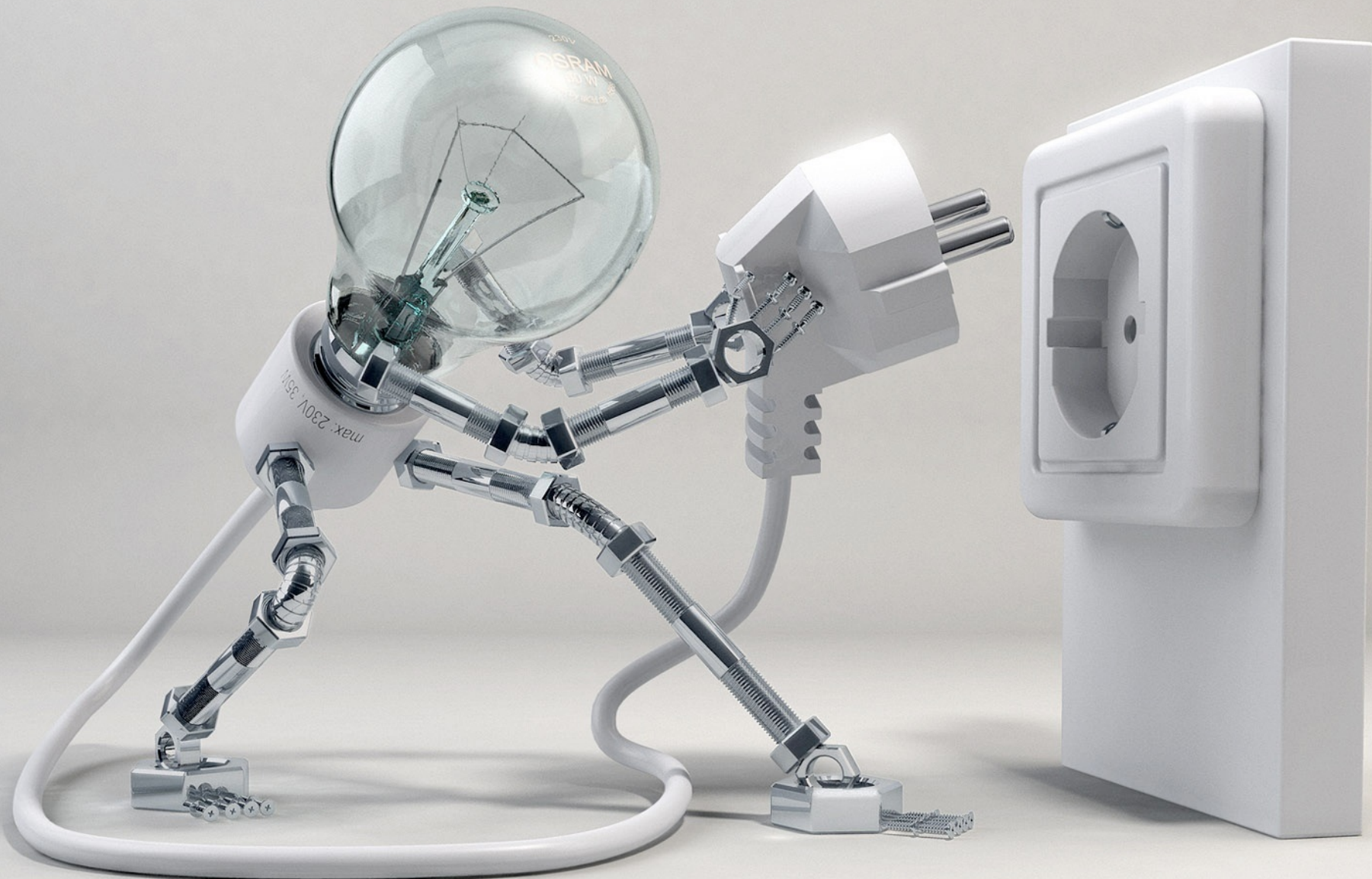🇺🇸 50 Forest Street, apt 520
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Summary

Senior Product Engineer/Manager with strong experience in creating devices for consumer electronics, retail software and military applications. Several millions devices produced and sold for the last 6 years and several patents in high- tech. Looking for a position that will require my design and development skills in both hardware and software to meet business demands. Most recent experience has been designing and building consumer electronic devices such as BlueTooth (4.0) low energy golf sensors for iPhone, GPS speed camera warning devices, high density USB chargers, and GIS software, from concept to production. Deep experience in manufacturing in China (Shenzhen), having spent years working with part supply, pricing, quality control, and management of Chinese engineers

Proficiencies

Project management, technical team management, electronic designs, embedded firmware and software development, electromagnetism, analog and digital design, BTLE, RFID, GPS, ultra low consumption systems, very high reliability multiprocessors architectures, military embedded systems.

Education

ESIGELEC (France)   1991 - 1994
Master of Science (MS), Electrical and Electronics Engineering, (Additional options) Robotics, Servo systems, Signal treatment

PASTEUR (France)   1989 - 1991
Mathematiques superieures & math. speciales. (Specialization) physics (P)

RICHELIEU (France)   1986 - 1989
Baccalaureate (Option E), Math. Phy. Mecha. Automat.

Languages

French   Native or bilingual proficiency

English   Professional working proficiency

German   Limited working proficiency

Experience

VP Hardware at ARCCOS GOLF LLC

March 2013 - Present (1 year 3 months)

Arccos sensors use GPS and Bluetooth technology to track your golf game automatically on your phone.
At the origin of the project, created the original golf impact physics detection algorithms, firmware, sensors electronics design, participated to the mechanical design and in charge of the production.

http://www.arccosgolf.com

CTO (co-founder) at MITSUGAWA Ltd

2009 - 2012 (3 years)

Designed, built, and sold the following products: USB wall plug chargers ELP01, ULP01, GPS speed camera warning devices SK08 and WDS02 and USB car charger CA50, CA5521.
Filed and obtained patents such as CA50 USB car charger, and the BW01 bio-sensor (brain waves) anti-drowsiness system. Several millions units sold. Customers included BMW, Fiat, Telefunken, Maplin, Silvercrest, Hama.

Was responsible for all aspects of these products including research, conception, mechanical design, electronic design, embedded software design, end user software design, production management, and marketing.

Co-founder of factory and design team in China.

CTO (co-founder) at INFORAD Ltd

2004 - 2009 (5 years)

Responsible from research and concept to production of all Inforad Ltd GPS speed-trap warning devices. Two millions units were sold over five years. Inforad was the pioneer and the leader in the European market for these devices.
Frequent software and firmware updates were made possible with a uniquely flexible design of the hardware/firmware.
Today, the software is actively used by close to a million users on a regular basis.

Also designed and developed geographic software to extract and process location information involving data encryption, graphical overlay, geo data sorting and encoding, and driving simulation.

VP Software Development at BAHIA 21 Corp

2000 - 2003 (3 years)

Headed a project to design and develop Sypod, a Multimedia Personal Assistant (MPA). Patented a new touch screen interface using gestures like today's iPhone or Android. My team of twenty-five software engineers and graphic artists was able to create a complete Linux-based system which included multimedia "skin-able" applications and a complete SDK within two-and-a-half years. Sypod was shown in Linux Expo in Paris and Madrid, and CeBit in 2002.

Project/Product Manager at THOMSON DAIMLER AEROSPACE

1998 - 2000 (2 years)

Created the Smart Mine Clearing Probe in the form of an electronic bayonet using a magnetic material and a miniature pulsed induction metal detection system fitted in the bayonet point. This system improved false alarms and decreased land-mines clearance time. It was patented for Thomson.

Design Engineer at THOMSON BRANDT AEROSPACE

1995 - 1998 (3 years)

Created the Land-mine Burier Vehicle Automation System using magneto-resistive technology, odometer and GPS technologies. Software ran on a militarized tactile tablet installed inside the vehicle cockpit and managed the sensors and vehicle automation. Worked in cooperation with Leica Geosystems in Switzerland for the sensors development. This system was approved by the French Army after field tests.

Created digital electromagnetic target identification sensor for Anti- Tank land-mine, which is a buried weapon with embedded electromagnetic sensors able to identify targets and fire at them at their weakest points. Electronic weaponry requires uniquely strict standards for safety, reliability and long term maintenance. Specialized in analog electromagnetic sensors using ultra low power consumption.

This weapon is used by French army and several other countries.

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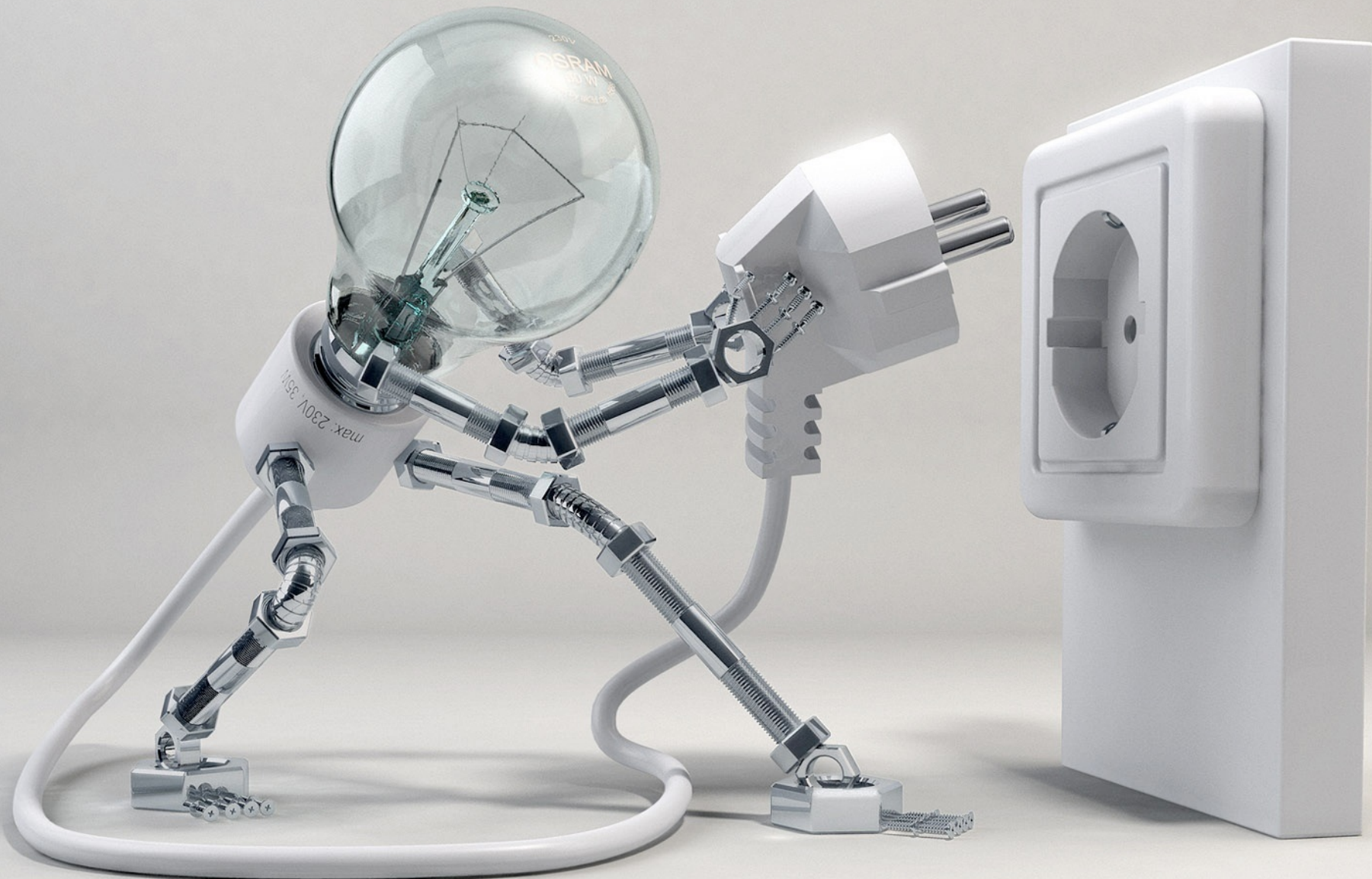
Portfolio

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About me

A product is the materialization of an idea. Whatever the origin of this idea, if your task is to transform it into a real product, it requires commitment and sacrifices. This creative process may be compared to gestation, you cannot simply forget it when you leave your office, it occupies your mind until delivery.
Giving birth to a product is an adventure, alone or with a team, you
always leave a part of yourself inside.

A consumer electronics product is a subtile synergy between marketing, electronics, mechanics and software in order to succeed in a competitive market. The success of your product depends on how quickly you solve this complex equation to meet the market demand. It requires a multi-disciplinary approach from creation through production.

The industrialization process can be fastidious and costly if the product was engineered without production issues and obstacles in mind. Experience is the main asset here, the more products you create, the more traps you avoid. Molds, component short-ages, laboratories certifications, quality failures, logistics etc. All these aspects can be fatal when speed to market is critical.

Creating consumer electronics products has been my passion for many years. From automotive electronic accessories to golf club sensors, I have created products that have sold in millions.

I started electronics at thirteen and at seventeen and I created my first commercial software for a civil engineering company. I continued a scientific and technical education until I became an engineer specializing in electronics. I worked for the military industry where I got several patents in electromagnetism until 1999. It is then that I focused my activity on creating consumer electronics for various companies in Europe and Asia, where I also participated in setting up a factory and an engineering team in order to manufacture my products.

From research to industrialization, solving problems is my life. Transforming ideas into real products is my passion.

Fabrice.

Arccos Golf

Golf's first real-time automatic stat tracking platform

Description

Arccos is a set of 14 sensors that user can attach to the grip end of his clubs. Using the new BlueTooth 4.0 radio standard, sensors communicate with user's iPhone to map shot locations during the game in order to build stats for each club. Arccos automatically tracks every shot, every distance and every hole on user's iPhone without the need to take any additional steps.

Brand:	ARCCOS GOLF
Market:	USA
Retail price:	399 USD

My contribution

Research, shots detection algorithms, electronic design, firmware, technical team management, production.

USA advertisement

2013

BW01

World first EEG wearable device for road safety

Description

BW01 is the first wearable anti-drowsiness system using driver's brain waves to detect drowsiness at the wheel. Using a micro EEG processor, it analyzes brain waves signals in order to detect driver sleepiness and warns him with audible alerts. Because it uses biological signals, it can prevent motorist sleepiness with high efficiency. A version has been studied for military helmets.

Brand: **MITSUGAWA Ltd**

My contribution

Original idea, financing, electronic design, mechanical design, firmware.

(IP) Patented in China (PCT)

SK08

Wireless GPS digital speedometer and speed-traps warning system

Description

SK08 uses GPS satellites system to compute accurate vehicle speed and vehicle location. It compares the current vehicle speed, direction, location with an embedded database including speed-traps locations, directions, legal speed limitation in order to warn driver about excessive speed.

Brand:	**MITSUGAWA Ltd**
Units sold:	**30 000**
Market:	**France**
Distributed by:	**TF1, SPEEDOFLASH**
Retail price:	**59 Euros**

My contribution

Original idea, financing, electronic design, mechanical design, firmware, production setup in China, end user PC and MAC software.

SK08 has been created in a pragmatic way to be handy with a minimum of buttons and an easy vehicle vent mount.
Electronics and internal firmware have been engineered to provide a stunning 22 hours battery life on road despite continuous display and GPS chip use. (Competitors products battery life is about 3 to 4 hours)

I created an ultra fast vector detection engine directly inside GPS chip in order to reduce components bill. This piece of embedded software shares GPS chip calculation strength without altering the satellites reception and treatment.
Then SK08 was the first device to comply with new 2012 European laws for the road safety.

SK08 internal "target" detection firmware must access a preprocessed geographical vector database contained inside its flash memory. In order to create this geographical database, I created a special software mixing Google map technology and numerous spatial mathematical calculations. This software combines several technologies including encryption of data, graphical overlay coding, geographical data sorting and encoding, driving simulation etc.

This software reduced the usual time spent on database creation for this kind of device by a factor 30.
More than 7000 warning areas have been manually generated, tested and archived thanks to this software saving thousands of labor hours.

Geo vector database management software:
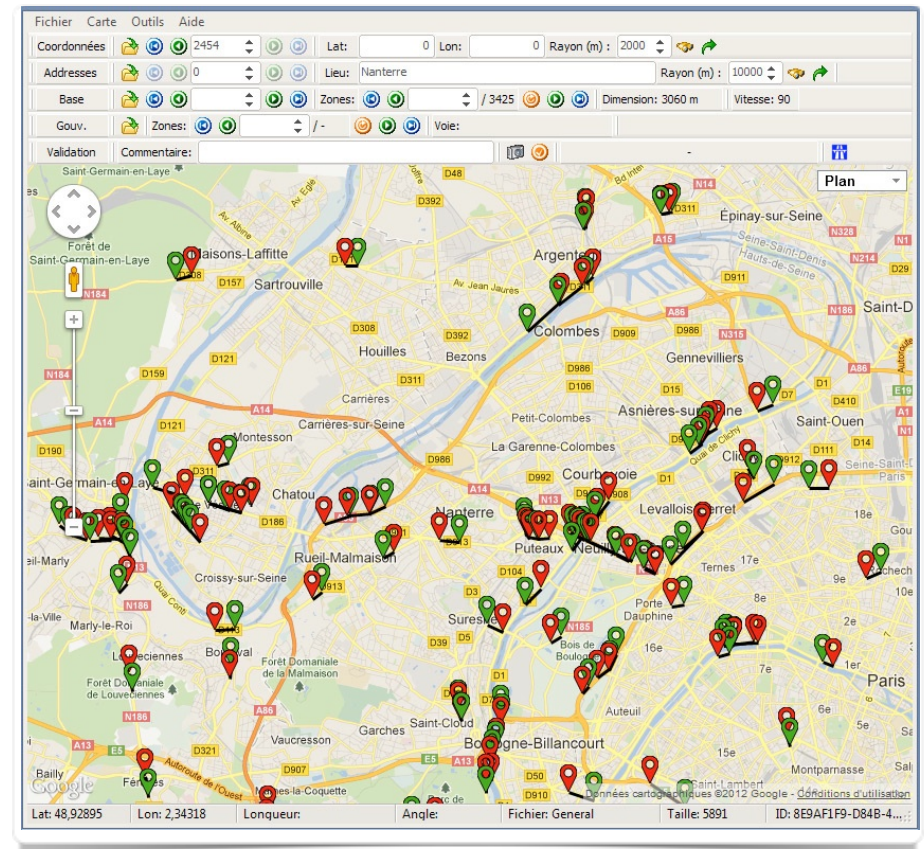
(i) Device design, all software designs and tests have been created in three months. SK08 has been shown to the press in early 2012 and has been a top seller in french TV shopping during one year.

ELP 01

European low profile high density wall mounted USB charger

Description

ELP01 is a 1A USB wall charger with a very low profile casing which fits perfectly European wall sockets. I created it to avoid the proliferation of heterogeneous USB chargers coming with phones, cameras, mp3 players etc. Presented in CEBIT show in 2011 it was immediately successful is Germany, Austria and Switzerland.

Brand:	**MITSUGAWA Ltd**
Units sold:	**100 000**
Market:	**Europe**
Distributed by:	**TELEFUNKEN gmbh**
Retail price:	**19 Euros**

My contribution

Original idea, electronic design, mechanical design.

(IP) Patented in China

ULP 01

British low profile high density wall mounted 2.1 A USB charger

Description

ULP01 has been presented to the public in 2011 during the Hannover Cebit show.
This low profile 2.1 A dual USB wall charger has been created in order to reduce the electrical mess from wires at home or in office.

Brand:	**MITSUGAWA Ltd**
Units sold:	**50 000**
Market:	**UK**
Distributed by:	**MAPLIN Ltd**
Retail price:	**9.9 GBP**

My contribution

Original idea, mechanical design.

Ⓘ Patented in China

CA5521

World first miniature 2.1 A dual USB car charger

Description

CA5521 is a dual ports USB car charger. It has been the first miniature 2.1 A USB car charger on the market. It can charge an iPad as well as two iPhone at the same time. It embeds electronic fuse and thermal protection.

This product has passed E-Mark certification and has been qualified by BMW.

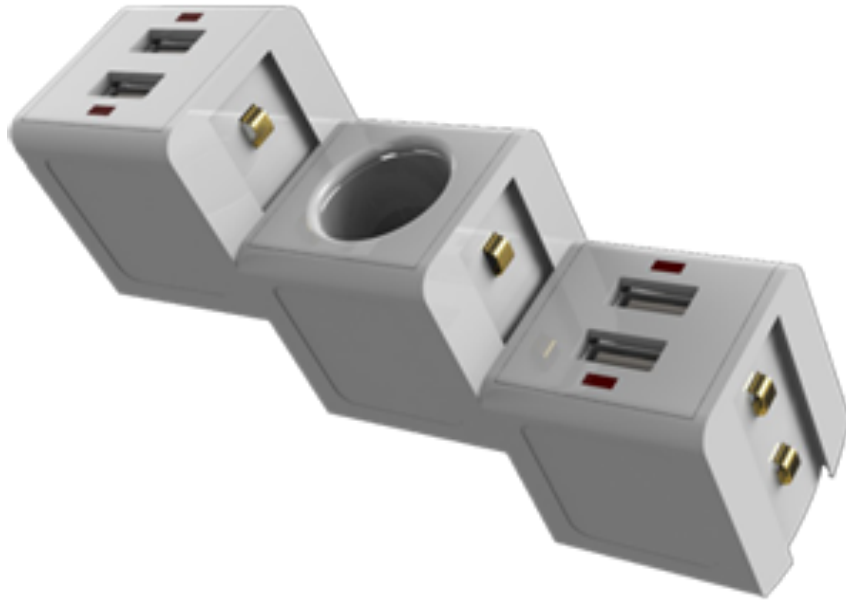|	
Brand:	**MITSUGAWA Ltd**
Units sold:	**> 500 000**
Market:	**Europe**
Distributed by:	**BMW**
Retail price:	**19 Euros**

My contribution

Original idea, electronic design, mechanical design.

(IP) Patented in China

CA800

Modular USB car charger

Description

CA800 is a modular design and can be easily assembled by the customer. Each module is independent and can snap together. There is different kinds of modules, some are USB car chargers, other are some cigar lighter socket extension. Each module can be sold separately so customer can decide how to expand his installation depending on his needs.

Brand:	**MITSUGAWA Ltd**
Units sold:	**5 000**
Market:	**Europe**
Distributed by:	**HAMA**
Retail price:	**19 Euros**

My contribution

Original idea, mechanical design.

IP Patented in China

INFORAD V6/K5

GPS speed traps warning system with voice alerts

Description

V6 is a speed-camera warning system using GPS technology. This design integrates three microprocessors and voice alerts.

V6 embeds a Li-ion polymer battery with a 5 to 6 hours battery life on road. Internal target detection engine has been created to handle more than 200 000 targets locations. Special mathematics algorithms have been implemented to avoid false alarms.

Brand:	**INFORAD Ltd**
Units sold:	**112 000**
Market:	**France/Spain**
Distributed by:	**CARREFOUR etc.**
Retail price:	**99 Euros**

My contribution

Electronic design, firmware, production setup in China, end user PC software.

INFORAD K1

World smallest GPS speed traps warning system

Description

K1 is the smallest and cheapest GPS speed-trap warning system in the world. Its original and handy design is the main reason for its huge success in western Europe.

Brand:	**INFORAD Ltd**
Units sold:	**700 000**
Market:	**Europe**
Distributed by:	**CARREFOUR etc.**
Retail price:	**59 Euros**

My contribution

Original idea, electronic design, firmware, mechanical design, production setup in China, end user PC software.

French review   UK advertisement

Reviews on Amazon UK

The K1 was created to stop the emerging Korean competitors by proposing a completely new and original design.

Cost and efficiency were key to stop any desire from asian competitors. One year after K1 official press presentation in Paris, no more asian competitor remained on the European market.

K1 was a real performer in terms of technology and design compared to its cost. With the size of a standard USB key, it embedded a Li-ion battery, sound alerter, GPS antenna and chipset, USB communication bridge and power management components.
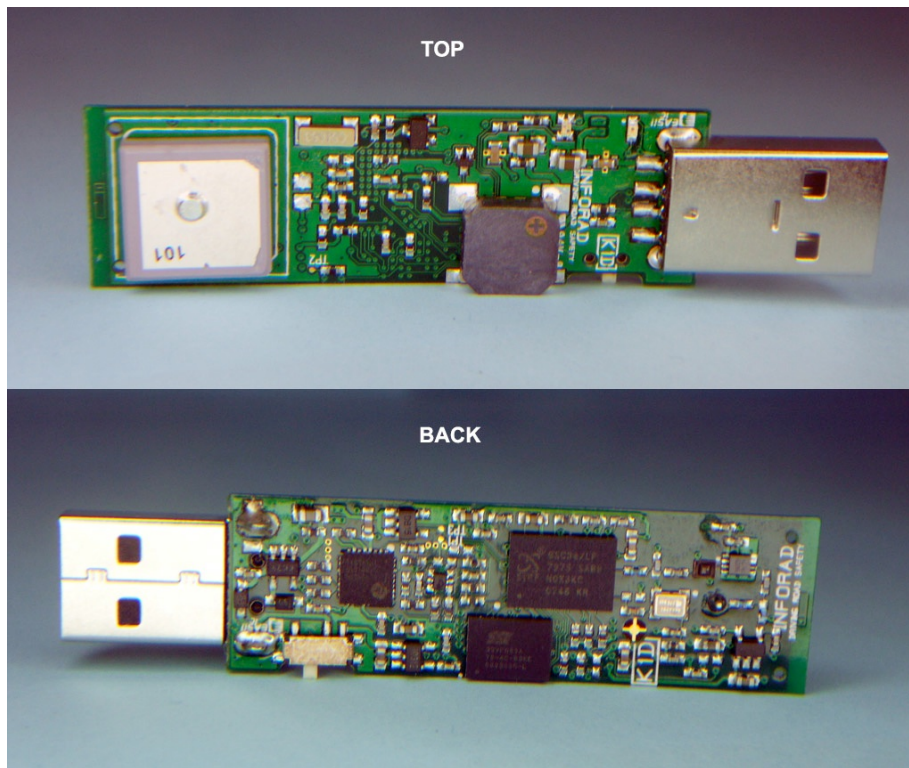
Several cosmetic improvements have been made after the first version and Kx products remained top-seller in the market for more than 3 years.

INFORAD M1

Rugged GPS speed cameras warning system for motorcycles

Description

M1 is a motorcycle version of a GPS speed-trap warning system. It was designed to be installed on motorcycles by professionals. Discrete, water-proof, oil-proof, vibration and impact resistant, I created this product the same way I made military products in the past.

Brand:	**INFORAD Ltd**
Units sold:	**30 000**
Market:	**Europe/UK**
Distributed by:	**FEU VERT, COBRA …**
Retail price:	**99 Euros (2006)**

My contribution

Original idea, electronic design, firmware, mechanical design, production setup in China.

Reviews on Amazon UK

CA 40

World first miniature USB car charger

Description

In 2006, USB car chargers manufactured in China, were big, ugly and used 80's technology. I decided to create a miniature USB car charger based on surface mount technology improving the dashboards profile and look by using a retractable chrome plated handle. Its quick success was beyond expectations.

Brand:	**SUNKIN Ltd**
Units sold:	**> 1 500 000**
Market:	**Europe**
Distributed by:	**FIAT, HAMA etc.**
Retail price:	**9.9 Euros**

My contribution

Original idea, electronic design, mechanical design.

IP Patented in China/Europe

INFORAD V3/V4

Advanced GPS speed cameras detection system

(i) Inforad V3 is also known as GPS Angel in USA

Description

V3 is a GPS powered speed-camera warning system. I created this version as an evolution of the first version I created in 2004.
This version uses two microprocessors and one USB bridge inside the power supply cable.

Brand:	**INFORAD Ltd**
Units sold:	**600 000**
Market:	**Europe**
Distributed by:	**CARREFOUR ...**
Retail price:	**99 Euros**

My contribution

Original idea, electronic design, firmware, mechanical design, production setup in China, end user PC software.

YouTube USA review

INFORAD V1/V2

GPS speed cameras detection system

Description

V1 was the very first GPS speed-camera detection system created in Continental Europe. Due to the strict European legislation, it was forbidden to detect radars radio waves in order to warn motorists, so I invented a system using GPS and an embedded speed-camera location database for real time comparisons to warn driver when necessary.

Brand:	**INFORAD Ltd**
Units sold:	**460 000**
Market:	**Europe**
Distributed by:	**AUTOBACS, etc.**
Retail price:	**99 Euros**

My contribution

Electronic design, target identification algorithms, firmware, end user PC software, production setup in China.

SYPOD

Multimedia Portable Assistant

Description

Sypod was one of the first multimedia tactile pocket players in the world.
Based on an original design and an embedded Linux distribution, it has been the first DIVX player offering a high quality stereo sound and a 25 FPS video rate with 65 000 colors.

Sypod has been shown in Linux expo in Paris and Madrid

Brand: **BAHIA 21 Corp.**
Market: **Europe/USA**

My contribution

Original idea, electronic design, mechanical design, software team management (20 engineers)

IP   3 patents in France

At the end of year 2000 I was approached by investors who asked me to find an idea for PDA (Personal Digital Assistant) market. After some market investigations, I knew that PDA world was saturated by major consumer electronics companies (HP, SAMSUNG, SONY) and proposed to target another market segment with a concept I called MPA (Multimedia Personal Assistant) This concept was innovative and well received.

The device was completely different from what was existing in the market, I worked in collaboration with Philippe Stark agency in Paris to create an original luxurious design. I focused on brand new multimedia features as TV output, Line in sockets etc...

I also wanted a completely new interface, different from current style widely used for PDA (Windows CE, Palm, etc.) For this purpose I have created a composite team of skilled software engineers and graphic designers. The team was organized into task groups in order to achieve my vision of the product.

We used a Linux kernel and we created a completely new user interface and multimedia applications. The applications were skin-able and we created a SDK called BTK (Bahia Tool Kit) in order to increase the software development rate.

We were the first to expose a stereo, 65K colors, 25 fps divx player and I patented a complete new way of approaching application browsing by sliding applications from everywhere on the tactile skin like today's iPhone or Android.

After the eleventh of September 2001, a different orientation has been decided for this product and it has been reconverted into a wearable security equipment.

This equipment has been presented to some members of the american congress in 2002.

Finally, it has been used as a wearable wireless user interface for airport handheld explosive detector (MO-2M) and portable X-Ray inspection system (SXR-150)

SURFCLEANER

PC Software (CDROM)

Description

Surfcleaner is a PC utility software I created in order to wipe out internet browsing tracks and protect user privacy.

This software has been sold in France as a boxed edition in multimedia shops like Hypermedia, Leclerc, FNAC and Auchan.

Brand:	**ORA CREATIVE**
Units sold:	**> 10 000**
Market:	**France**
Distributed by:	**HYPERMEDIA, FNAC**
Retail price:	**19 Euros**

My contribution

Original idea, coding, UI.

NETFLOW

PC Software (CDROM)

Description

Netflow was a PC utility software created to aggregate multiple internet downloads at same time in order to decrease downloading time for big files. This software was able to manage HTTP and FTP protocols.

This software has been sold over Europe as a boxed edition in multimedia shops like Hyper-Media, Carrefour, Auchan, etc.

Brand:	**ORA CREATIVE**
Units sold:	**> 10 000**
Market:	**France**
Distributed by:	**HYPERMEDIA**
Retail price:	**19 Euros**

My contribution

Original idea, coding, UI.

COMPTEUR INTERNET

PC Software (CDROM)

Description

In 1998 a large part of the European market accessed internet via telephone at a significant cost. I created a consumers software to manage internet time and automatically close the internet connection after configurable idle time or budget overrun.
This PC software used some system hooking in order to analyze RTC communications and take control of modem.

Brand:	**ORA CREATIVE**
Units sold:	**> 30 000**
Market:	**Europe**
Distributed by:	**FNAC, SURCOUF ...**
Retail price:	**19 Euros (boxed)**

My contribution

Original idea, coding, UI.

SP 01

Smart mine-clearing probe

Description

After a war anti-personal land-mines are a disaster for countries. Today, mine clearance troops use a bayonet to probe ground inch per inch stopping at each stone.

In a pragmatic way, I created an affordable electronic bayonet using amagnetic material and using a miniature pulsed induction metal detection system fitted in the bayonet. This system decreases false alarms and improves land-mines clearance efficiency.

Brand: **THOMSON DAIMLER**
Market: **France**

My contribution

Original idea, research, electronic design.

IP Patented in France

1997

MATENIN

Land-mines burier vehicle automation

Description

This system was created to generate automatic land-mines field locations reports and to ease wartime land-mines field creation.
I created a system that uses a mix of software and automation hardware with magneto-resistive technology, odometer and GPS.

Working in cooperation with Leica Geosystems in Switzerland for the sensors development, the system has been approved by the French army after field tests.

Brand: **THOMSON**
Market: **French Army**

My contribution

Electronic design, embedded software, militarized PC software and UI.

HPD3

Electromagnetic target identification anti-tank land-mine

Description

This weapon is buried underground and embeds an electromagnetic sensor able to identify the target and fire it at its weakest point. This land-mine has a self destruction system in order to comply with Ottawa treaty. When designing this kind of products you must keep in mind safety, reliability and long term maintenance.
I used aeronautical redundancy design in order to improve weapon's MTBF.

Brand: **THOMSON**
Market: **Used by the French army**

My contribution

Electromagnetic sensor, electronic design, firmware.

(IP) Patented in France