

IT Projects Luc Paquin Developed (1983-2025)

Some of the IT Projects Luc Paquin Developed Over the Years

Electronics, IoT, Teacher, Instructor, Patreon, R&D and Consulting

I am a highly skilled programming language, microcontrollers, IoT, robotics and etc; with over 45 years of experience in various industries. I graduated from McGill University, Montréal, Québec, Canada with B.Sc. and D.D.S. degrees. I started consulting with small and medium-sized businesses in my native Canada in the mid-eighties and by the mid-nineties I was consulting for large corporate clients like Fannie Mae, KPMG Peat Marwick, Chase Manhattan Foreign Trade Division (Hong Kong), Warner Lambert and a variety of other firms in the Washington, DC and New York City area. Later on I worked with clients in Europe, Mexico, and Latin America.

Comprehensive Solution for Temporomandibular Joint Dysfunction (TMJD)

Luc Paquin, a seasoned independent technology consultant with vast experience in software development and electronic hardware design, proposes a holistic solution to manage Temporomandibular Joint Dysfunction (TMJD). Leveraging his continuous education and numerous certifications in the field, Luc aims to create an innovative product that integrates various eHealth sensors and biosensors to facilitate deep meditation in patients, thereby significantly reducing TMJD symptoms and potentially other health conditions.

Museum Keyboard with a Screen Wireless

Small relatively inexpensive unit, about the size of a keypad. Small screen, battery powered, WiFi, unique device ID and capture timestamp, ZIPCODE, international and how many people.

Bluetooth Wireless Gunlock

Proof Of Concept Arduino-based gunlock and Android control application.

Microcontroller-Controlled Deep Meditation Facilitating System

Hardware and software solution that uses various biosensors (EEG, EKG, pulse, skin resistance, skin temperature, dissolved blood oxygen, etc.) to facilitate deep meditation in patients that suffer from chronic pain. We did the preliminary research, tested various types of sensors to find the solution yielding the best results, constructed proof-of-concept prototypes, and planned production prototypes.

Distributed Intelligent Security, Monitoring and Alarm Platform

Wireless self-contained distributed intelligent security, monitoring and alarm platform for custom homes and commercial use. The platform includes specially designed intelligent sensors that can monitor different things like temperature, humidity, movements, status of doors and windows, video monitoring, its own internal status and diagnostic information and various other parameters. Those intelligent sensors communicate wirelessly to a central control panel that features a touchscreen and special control software that display the plans of the house in 3D with sensor locations. For commercial alarm companies a remote application can monitor multiple installations. I am responsible for design of the solution, building the proof-of-concept and building and supporting the final platform.

Web-Based Vertical Market Affiliate Marketing Platform

Web-based platform for a vertical marketing company used to sell directly to the public, recruit affiliates, process sales transaction for affiliates and the general public and use a custom backend to manage data for the marketing company and the affiliates. I am responsible for design of the solution, building the proof-of-concept and building and supporting the final platform.

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Local Business Directory Platform (Web and Mobile)

Web and mobile-based platform to promote local small businesses. I am responsible for design of the solution, building the proof-of-concept and building and supporting the final platform.

Microcontroller-Controlled Sport Equipment Scale

Specialized microcontroller-controlled scale used to balance specific sport equipment based on dynamic findings from my sport telemetry solutions. I am responsible for design of the solution, and of building proof-of-concept and production prototypes.

Distributed Networked Multimedia System

Wireless hardware and software solution with embedded microcontroller, multimedia encoder/decoder and network transceivers to reliably distribute media content over a wireless distributed network. I am responsible for the design of the hardware and the software as well as for the building of proof-of-concept prototypes and production prototypes.

Online Social Media Challenge System

Complete integrated front-end and backend solution to manage online challenges and contests. Includes social media integration, automated content (audio, images, presentations, video) management, conversion, transcoding and topping and tailing, publicity management and automated integration in the site and content, real-time reporting, user registration and notification and much more.

Sport Telemetry System

Wireless hardware and software solution with imbedded sensors (accelerometer, gyroscope, magnetometer, etc.) in sporting equipment that tracks the equipment's movements in real-time. I did the preliminary research, tested various types of sensors to find the solution yielding the best results, constructed proof-of-concept prototypes, and planned production prototypes.

Deep Meditation Facilitating System

Hardware and software solution that uses various biosensors (EEG, EKG, pulse, skin resistance, skin temperature, dissolved blood oxygen, etc.) to facilitate deep meditation in patients that suffer from chronic pain. We did the preliminary research, tested various types of sensors to find the solution yielding the best results, constructed proof-of-concept prototypes, and planned production prototypes.

Custom Mobile, Web, Kiosk, and Desktop Solution for Grocery and Retail Shopping

Shopping list and shopping management solution that include custom hardware, mobile applications, as well as web, kiosk, and desktop components. The solution utilizes the mobile component in innovative ways including OCR, ICR, barcode, RFID and a push component.

Custom Integrated Web Shopping and Ticketing System, Retail POS and Ticketing, Kiosk System

Complete business management solution with Web-based management and sales interface integrated with a back-office solution that offers retail POS and Box-Office Ticketing, Kiosk sales, coupons and voucher management, client fidelity and membership's solutions, and much more.

Online and Mobile Social Media Challenge System

Complete integrated front-end and backend solution to manage online challenges and contests. Includes social media integration, mobile integration, automated content (audio, images, presentations, video)

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management, conversion, transcoding and topping and tailing, publicity management and automated integration in the site and content, real-time reporting, user registration and notification and much more.

Security and Access Control System

Networked access control system for a gated community that integrates gate control using RFID smartcards, visitor tracking, guard shifts and rounds control, video and environmental monitoring, biometric recognition, wireless alerts, event logging, and much more.

Guard Rounds Management System

Networked guard rounds management system with integrated video and environmental monitoring, biometric recognition, wireless alerts, event logging, and much more.

Switch Testing System

Touch screen-enabled interface and control software for automated airplane thermal switch testing. Integrates control and data logging of thermal dry well, salt calibration thermal bath, oil calibration thermal wet bath, data acquisition of switch test results, output of graphic reports, data output to Oracle, and integration with enterprise-wide ERP.

Airplane Washing System

Touch screen-enabled interface and control software for an automated airplane washing system.

Warehouse Management System

Multi-site and multi-warehouse management and real time inventory control system with mobile wireless inventory control capabilities and automated order reception and shipping.

Wireless Admission Control System

Integrated wireless admission control system for various venues like theatres, museums, sporting events, etc. The system supports tickets with barcodes, magnetic strips, and RFID tags.

CinéLink

HDTV and cinema digital recording software. Professional solution designed by integrating off-the-shelf computer hardware, industrial high definition cameras with a CameraLink or Gigabit Ethernet interface, with Windows-based software that can record in 8bit and 10bit without compression.

Kameleon / JLPSOft

Multilingual business management and security solutions that include POS, ticketing, decision support, information (POI)/Point Of Profit (POP)/POS/ticketing kiosks, as well as smartcard and RFID based loyalty schemes. Markets are hospitality (hotels, spas, resorts, fast food, restaurants, bars, etc.), entertainment (cinemas, theatres, sporting events, museums, trade shows, etc.), transportation ticketing, retail, banking, security, and a large variety of other markets.

Medical Portal Database System

As part of a major web based medical portal, designed the database backend of the Doctor's information database. Also created applications to automate the searching and extraction of relevant information from various web sources using Internet Explorer automation.

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Ciné-Wizard

POS system for movie theatres that include full management capabilities, sales kiosks, and smartcard-based loyalty schemes. Was the precursor of JLPSoft.

KAOS

Kiosk Advanced Operation System. An operating system for multimedia information kiosks that manages access, security, remote diagnostics and maintenance, user statistics gathering, hardware, content presentation and much more. Customization and operation of the system is done via smartcards.

ESPRIT

Electronic Sales & Public Relations Information Terminal. Self contained information kiosk, management system, and market analysis tools. Both hardware and software were designed in-house. Targeted at the wine, fine food, luxury goods retail trade and other retail type customers.

NORMITA

Newly Obtained Research Multimedia Information with Touchscreen Access. Self contained information kiosk, management system, and market analysis tools. Both hardware and software were designed in-house. Targeted at the wine, fine food, luxury goods retail trade and other retail type customers.

Wine-Wizard

Professional wine cellar management system, including windows CE applications for taking professional wine tasting notes and remote wine cellar management.

HUGO

Highly Usable Graphical Object. Self contained information kiosk, management system, and market analysis tools. Both hardware and software were designed in-house.

POS-WIZARD

Point of sale system for small retail establishments.

Decision Support System for the Pharmaceutical Industry

Decision support system and data analysis tool for the pharmaceutical Industry.

MaxTan 1 - 5

MaxTan version 1 to 5 is a modular POS system for the indoor tanning industry.

Decision Support System

Decision support system for the profitability analysis of a direct sales mortgage trading desk.

Decision Support System

Decision support system and graphical code generator linked to ServiceModel.

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Custom Business Simulation Engine

Custom simulation engine for the work flow analysis of business processes.

Mortgage Pre-Qualification System

Mortgage pre-qualification system. Handled the complete development of the database structures, database conversion, database maintenance modules, reporting utilities and various other utilities.