

# Canon Bretagne

Together, let's imagine tomorrow



## Industrial **subcontracting**

Engineering and development  
industrialisation, production and services



## Our market

Our customers operate in different sectors: Security, Telecom, home automation, medical, industry, transport, energy ...

## Certificates and Accreditation

- ISO 9001 (Quality)
- ISO 14001 (Environment)
- ISO 13485 (Medical)
- AEO certification (Authorized Economic Operator)
- CIR approval (research tax credit)



All these services are provided on our site of Liffré.

## Engineering and development

- Project support
- Electronic development
- Mechanical development
- Embedded software development
- Modeling and prototyping



## Industrialisation

- Technical documents
- Parts development
- Production means development
- Qualification



## Production

- Printed circuit boards
- Plastic injection molding
- Products assembly
- Local and international logistics



## Services

- After sales service
- Logistics platform
- Special equipment



# ENGINEERING & DEVELOPMENT



## We build yours ideas

### Project support

- Functional specifications development/support
- Feasibility analysis
- FMECA (ISO 14971 for medical)
- Project management according to ISO 13485 for medical

### Electronic development

- Schematic, creation of libraries, PCB layout
- PCB redesign and optimization
- Debugging and VHDL simulation
- Manufacturing drawings (gerber, pick&place, pdf schematic)
- Card and 3D components export
- Test benches building

### Mechanical development

- Multidisciplinary team : plastics processing, sheet-metal, rotational molding and thermoforming
- Aluminium injection, machining
- Development of plastics molds, launch of mass production and optimization of the existing moulds
- Digital simulations (mechanical and thermal)
- Rheological simulation for plastics processing
- Import of all types of 3D drawing

### Embedded software development

- Project Management according to ISO 62304 for medical
- Human-machine interface (HMI) building
- Management of radio communication procedure

### Modeling and prototyping

- Fast mechanical or electronic modeling
- Demonstration or functional prototype production
- Prequalification of the product in order to be awarded the CE certification
- Prototype molds for small-scale or right plastic materials

### Tools

- Electronic CAD (Altium Designer)
- Mechanical CAD (Solid Edge ST)
- Thermal and mechanical simulation (Nastran)
- Rheological simulation (Moldflow)
- 3D ABS Uprint Stratasys plus printer
- 8, 16 and 32 bits compiler
- CNC processing machine
- Test machines (drop test, vibrations,...)

# INDUSTRIALISATION



## Multidisciplinary teams experience by your side

### Technical documents

- Advice for product definition
- Adapting drawings to industrial processes
- Value engineering
- Product qualification specifications
- Selection of suppliers

### Parts development

- Local and international supply network
- Tracking of tool development status
- Parts qualification
- Logistics and customs clearance procedure

### Production means development

- Risk analysis
- Manual assembly
- Automatic assembly
- Means of control

### Qualification

- Assembly process
- Products

# PRODUCTION



## Small, medium and large-scale production

### Printed circuit boards (PCBs)

- Automatic and manual assembly of components
- Lead or lead-free PCB assembly, in nitrogen or in air atmosphere
- Automatic Optical Inspection (AOI)
- Protection and surface finishing of PCBs (resin coating, tropicalisation, etc...)
- Functional and in-circuit test

### Plastic injection molding

- All-electric injection molding press, from 100 to 450 tons
- Plastic parts molding up to 2.5 kg by using any type of material
- High-precision technical and aesthetic parts and insert molding

### Products assembly

- Production according to Lean Manufacturing Principles
- Assembly and control in modular production cells tailored to customer needs
- Quick response and flexibility by offering a range of production options: from small to large-scale production
- Multi-skilled staff

### Local and international logistics

- An efficient global logistics management of import/export operations
- Installation and setup for end users
- Expertise in the customs clearance
- Authorized Economic Operator (AEO) Certification

# SERVICES



**Our competent and responsive teams are ready to serve you**

## **After sales service**

- Creation of customised Web interface
- Customised call handling
- Technical diagnosis and support on the phone
- Advice on how to use the equipment
- Application of manufacturer's warranties
- Setting-up and follow-up of field services
- Repair in workshop
- Repackaging
- Treatment of end-of-life products (WEEE)

## **Special equipment**

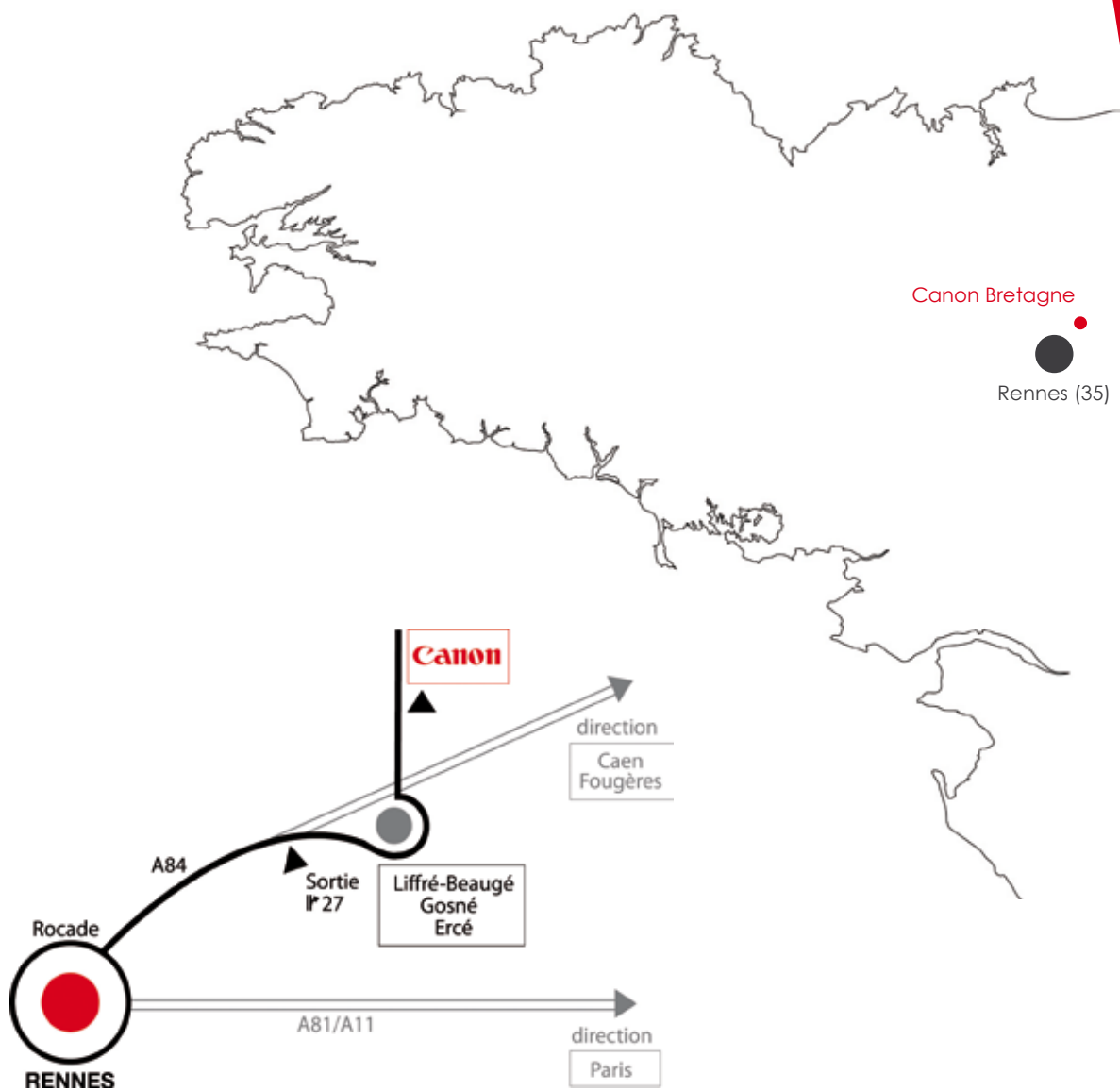
- Anechoic chamber
- Clean rooms
- Weathering test equipment
- X-ray room
- Analysis laboratory
- Calibration laboratory
- Methodology tools
- Transport simulation equipment

## **Logistics platform**

- Warehousing and shipping of products
- FIFO (First-In-First-Out) warehouse management in order to avoid obsolescence

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