#### **EMC**

To support a design of products that meet standards, Novika offers companies a proven knowledge in the fields of electromagnetic compatibility (EMC) and electrical safety.

In this context, the design process can include many activities such as:

- interpretation of legal requirements
- development testing and standardized prequalification
- resolution of intermittent problems related to EMC
- measurement of transfer function of cables and connectors
- measurement of mitigation shielding, filters and components



#### **Power Electronics**

Novika features installations allowing characterization and tests of various high-power devices. The power electronics lab is equipped with a variable DC voltage source and also has sources able to produce all standard single and three phases AC voltages. It has a complete set of high-precision measuring equipment to analyze waves and currents produced by the devices under tests, power factors, harmonic distortion rates, available power, and so on.



#### **Proven expertise at your service**

Interdisciplinary collaboration defines Novika's applied research. For example, electronics designers work together with mechanical and computer engineers for harmonious integration of the various aspects of the product.

Moreover, Novika's team also works, on a regular basis, with mathematicians, biologists, chemists and physicists who meet complementarily regarding diverse needs encountered in innovation projects.



#### Novika Solutions offers services in the following sectors:

Industrial Laser Processing • Design of Electronic Products • Development of Mechanical and Electromechanical Products, Equipments and Processes • Ecoenergy • Software Solutions • Multi-physics Testing • Electromagnetic Compatibility (EMC) and Electrical Security

### PLEASE CONTACT US FOR MORE INFORMATION:

Luc Landry, ing.

Manager - Electrical Engineering llandry@novika.ca

129, rue du Parc-de-l'Innovation La Pocatière (Québec) GOR 1Z0



Phone: (418) 856-4350 # 109



Financial partner:





#### **ELECTRONIC PRODUCTS DESIGN**



www.novika.ca

DESIGN OF ELECTRICAL CIRCUITS

DESIGN OF PCB'S

TESTING OF PROTOTYPES
ELECTROMAGNETIC COMPATIBILITY

POWER ELECTRONICS

# Proven expertise at your service

With 30 years of experience in the design and development of electronic products, Novika Solutions team offers companies professional services. Our team can assist you throughout your project, from needs identification to production support.

The multidisciplinary team of scientists, engineers and technologists meet specialized needs of innovation in fields such as medical technology, transportation, information technology, energy efficiency, industrial processes and acoustics. With a transparent project management based on performance and its ISO 9001:2008 quality system, Novika ensures accuracy and traceability of its work.

# A complete and flexible proposal

Novika offers a confidential and personalized service answering your requirements for varied contracts:

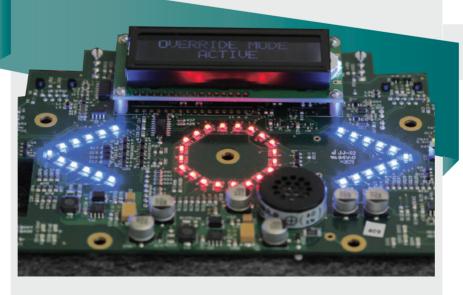
- Identification of needs
- Cost evaluation
- Design of electrical circuits
- Realization of electrical schematics and assembly
- Design of PCB's and enclosures
- Generation of parts lists and search for alternate sources
- Manufacture of prototypes
- Design of procedures and test benches
- Electrical safety testing and electromagnetic compatibility (EMC)
- Production support

Moreover, the graphic-design team, specializing in ergonomics, develops intuitive control interfaces with a unique design, allowing your products to stand out.

#### **Laboratories**

To support its research and development, Novika features infrastructure and highly specialized equipment, to meet main standard's latest editions. (ANSI/IEEE, CEI, CENELEC, CISPR, CSA, EN, FCC, IC):

- EMC laboratory complying with the latest international certification requirement, up to a frequency of 6 GHz
- power electronic laboratory with variable DC voltage up to 1kV (150A), AC single and three phase's source up to 30kVA(600V)
- controlled atmosphere chamber for environmental testing at temperatures between -70 and 180  $^{\circ}\text{C}$  with a humidity range from 10 to 95  $^{\circ}\text{C}$
- facilities and powerful acoustic equipment, including an anechoic chamber and a reverberation room
- large amount of measurement and specialized testing instruments on the cutting edge of technology: high-bandwidth oscilloscopes, LCR analyzer, spectrum analyzer, electrical safety testing equipment



### **Embedded systems**

With a large amount of computing platforms, Novika designs, develops and produces your programmable embedded systems, regardless what they are:

- microcontrollers
- microprocessors
- digital signal processors (DSP)
- system of mixed analog-digital chip / (PSOC)
- programmable circuits (CPLD, FPGA, etc..)

Novika can also extend the possibilities of your products by allowing an access to a computer, network or the Internet, effectively and safely.



A distinct expertise: medical technology

Over the past five years, Novika spent more than 45,000 hours for about fifty projects related to the health field, gathering extensive knowledge and expertise in medical and paramedical equipment designing, as well as management regulations, standards and other requirements of this sector.

Since 2010, a dedicated team is working on the development of technological tools for people with loss of autonomy, to prevent falls and support caregivers.