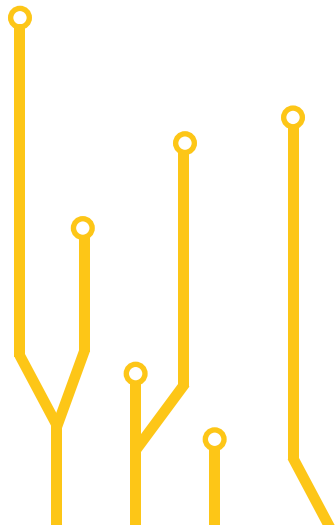




**WE DESIGN
AND MAKE YOUR
MECHATRONIC PRODUCTS**



ABOUT US

PRESENTATION

Established in 2008 in Côtes-d'Armor (22) – Brittany, DK Innovation is your engineering consulting office in electronics, mechanics and industrial computing. Our mission is to bring you our expertises through customized services ranging from the punctual mission to the development of global, reliable and efficient industrial solutions.

DK Innovation ensures the realization of your complex electronic projects at all their stages: from the design to the manufacturing of the electronic systems as well as their mechanical assemblies. And, offers a wide range of services: design (electronics, mechanics and software), prototyping, manufacturing, industrialization, 3D printing, precision mechanics, tests, maintenance etc... . Whatever your activity area (boating, robotics, renewable energies, precision mechanics, medical, etc ...), DK Innovation brings innovative solutions adapted to your projects and problems.

VARIOUS SECTORS OF ACTIVITY



FOOD INDUSTRY



AERONAUTIC & DRONE



NAUTICAL SPORT &
SAIL



SECURITY



ROBOTIC &
COBOTIC



CONNECTED OBJECT



MEDICAL



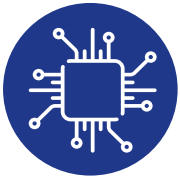
INDUSTRY



ENERGY



OUR ACTIVITIES



ELECTRONIC DESIGN

Experts in electronic engineering, DK Innovation intervenes at all stages of the electronic design of your cards and systems : Study of context and feasibility, Study of the functions and the selection of relevant components, Electronic design, Schema input & Routing, Drawing of the outline of card from the mechanics, Realization and development of prototypes.



MECHANICAL DESIGN

We carry out the mechanical design of the systems, as well as the integration of electronic cards into their mechanical assemblies. DK Innovation also offers the design and manufacture of the front panels, the design of machined parts and all in sheet metal, the study of integration of cards in their boxes, mechanical assembly, integration of sensors, electrical cabinets, 3D printing in ABS and machining.



SOFTWARE DESIGN

DK Innovation develops embedded software for the electronic system designed. A majority of the current electronic boards contain programmable components, which include autonomous electronic and computer systems, often in real time, and specialized in a specific task. Dk Innovation develops and programs the algorithms of your electronic systems : Programming of on-boards softwares (C and Assembler), Calculations and subjections on-board on microcontrollers, Programming and development of applications PC, iOS, Android ..., Remote control applications.



INDUSTRIALIZATION

DK Innovation prepares industrialization at the same time as design to reduce costs and iterations. We are also able to industrialize already operational prototypes. Dk Innovation is at your side for : Optimization of production costs, Equipment's of production for the manufacturing, Realization of the technical specification file, Transition from the prototype to mass production, Climatic chamber aging tests (service life, guarantee).



MANUFACTURING

Dk Innovation manufactures your electronics cards and integrates them into their mechanical assemblies. We are equipped to manufacture ourselves electronic cards and mechanical parts : Manufacture of cards in CMS / TRAD technologies, Programming of components, Machining of electrical boxes and cabinets, Wiring of electrical boxes, Assembly and testing, Manufacture of mechanical parts.



OUR PRODUCTS



CAN DISPLAY

The CAN display is part of the DK Innovation energy management ecosystem. It allows to display the information related to the lithium batteries, charge switch, regulator of alternator or other systems present on the CAN network ... This device allows a monitoring of the batterie's and cells voltages which compose them.



SAFETY MODULE

The Safety Module is an essential organ for the functioning of the BMS DK Innovation. It allows to supply the BMS with one or more batteries from the "+ EDGE" connection and the CAN connections. This module gathers all the information of the different batteries sent in the bus to manage the stages of charge and discharge thus avoiding any deterioration of the batteries in the event of undercharge and overload.



WIFI MULTIPLEXER

The DK Innovation WiFi multiplexer allows you to connect your NMEA instruments to your embedded computer: iPhone, iPad, smartphone, tablet, laptop. 4 isolated NMEA inputs and allow to acquire the information of your instruments, 4 outputs allow to send the information received to other instruments.



MINI LOGGER

The MiniLOGGER records all NMEA data to an SD card. Two isolated NMEA inputs are automatically configured and allow information to be acquired from 2 different sources. An event entry allows you to associate changes of sails or boat configuration with the recorded data.



BUS CAN ISOLATOR

The DK Innovation CAN Bus isolator is used to connect two CAN BUS with different electrical potentials or communication speeds. In the event that two devices do not communicate at the same speed, it can be placed between these two devices in order to make them communicate.

OUR SERVICES

MANUFACTURING & SYSTEMS INTEGRATION

After the validation of the prototype, we can launch the manufacturing and the product integration

6

SPECIFICATIONS

Transmit us your specifications. If not, we can also develop it with you

1

CORRECTIONS OR PROTOTYPE DELIVERY

System improvement or delivery of the final prototype to the customer

5

DESIGN

Definition of mechanics and electronics design

2

YOU'VE GOT A PROJECT OR AN IDEA TO REALIZE ?

TEST & CUSTOMERS FEEDBACK

Prototype testing with the customer, and recording the various axes of improvement

4

PROTOTYPING

Manufacturing the electronic board, designing the software, and system development

3

THEY TRUST US



MACIF TRIMARAN BATTERIES BY FRANCOIS GABART

Work done :

- Electronic design (scheme, routing)
- Embedded software development
- Mechanical design

Technologies :

- Active balancing
- Energy-saving electronics
- Bus CAN
- Softwares (C# & iOS)
- LiFePO4 batteries

BUREAU VALLEE SAILING BOAT BATTERIES BY LOUIS BURTON

Work done :

- Electronic design (scheme, routing)
- Embedded software development
- Mechanical design

Technologies :

- Active balancing
- Energy-saving electronics
- Bus CAN
- Softwares (C# & iOS)
- LiFePO4 batteries

FRANKY ZAPATA FLYBOARD

Work done :

- Electronic design (schemes, routing)
- Development of embedded softwares
- Mechanical integration

Technologies :

- Power line
- Sealing
- Resistance to the environment in compartments of marine engines



THEY TRUST US



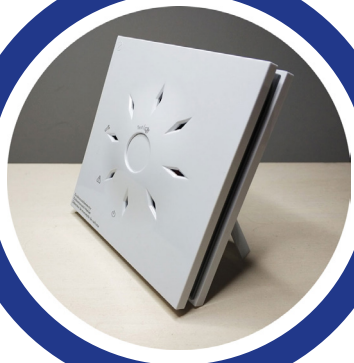
PIPELINE ROBOTICS EMBEDDED ELECTRONIC SYSTEMS

Work done :

- Design of the complete system architecture (Robots and control-room)
- Electronic design (schemes, routing)
- Development of softwares embedded inside the robots
- Development of supervision & diagnostic software (PC)
- Development of the prototypes
- Adaptation to the existing mechanics
- Electronic manufacturing

Technologies :

- Bus CAN Communication on ARM Cortex M3 & M0
- Engine driving & master-slave (CC et BLDC)
- LED lighting of spotlights
- Inclinometer AHRS with accelerometer and 3D gyroscope
- Supervision & diagnostic software (PC)



CARBON MONOXYDE DETECTOR

Work done :

- Electronic design (schemes, routing)
- Development of embedded softwares
- Mechanical adaptation
- Software documentation

Technologies :

- Energy-saving system
- Sound and visual indication
- Passage of the certification