



GEOCONNECTICS

RELIABILITY TESTING LABORATORY

SIMULATION

OUR VOCATION

Electrical contacts & Simulation

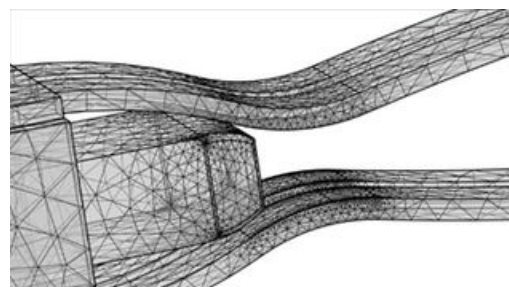
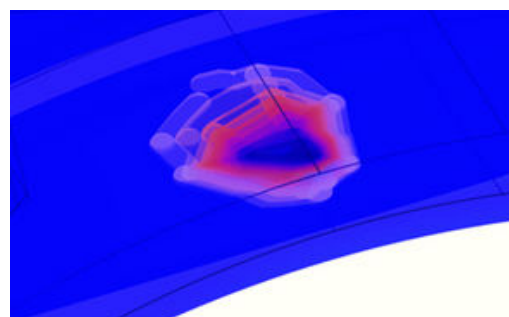
Conductive metal parts

Insulating parts

The vocation of our company is especially the characterization of electrical contact.

We characterize the conductive metal parts through which circulates electrical energy. We also characterize the insulating parts which isolate the current flow.

We work in the fields of aeronautics, automotive, electrical engineering, aerospace, military, electro medical devices, electronics, energy...



OUR QUALITY APPROACH

We have an **R&D label** called "Agrément crédit d'impôt recherche " allowing our French customers to obtain a tax deduction of 30% on theirs R&D projects.

We are accredited according the standard CEI 17025 by **COFRAC** since the 14 April 2020. Our accreditation perimeter is built on EN 60512 standards (contact resistance). [Scope 1-6763](#) available on the COFRAC website.

FROM BASIC SIMULATION TO ADVANCED MULTIPHYSICS CONTACT



SIMULATION OUR SERVICES

> Mechanical domain

We perform basic tests

- Deflection of contact blade
- Contact pressure and forces
- Relaxation of materials
- Resonance's frequencies
- Tomography of real parts

> Thermal & heating simulation

We perform thermal analysis

- Thermal distribution and gradients -
- Heating (Joule's effect and induction)
- Thermal capacity

> Electrical domain

We perform numerical electrical measurements

- Current, voltage drop
- Contact resistance
- Current density

> Magnetics coupling

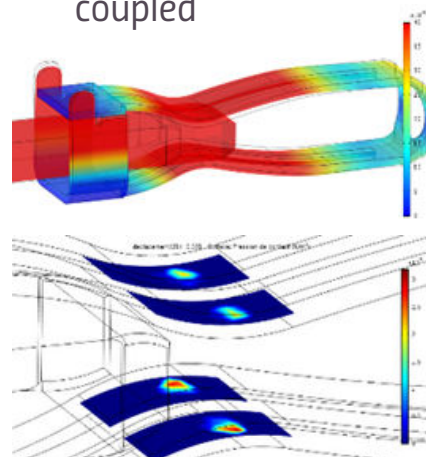
Flux and forces

- Lorentz forces
- Laplace forces
- Flux arrows and current density

> Non linear electrical contacts

We carry multi-physical contact simulations

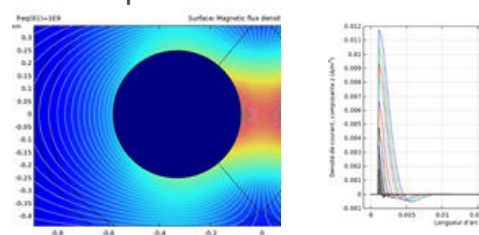
- mechanical, electrical, thermal and magnetics, simulations coupled



> RF-transmission line

We realise calculation of lines

- Skin effect
- Impedances



> R&D calculations

Discoidal and ballistic

- mechanical, electrical, thermal and magnetics simulations coupled

