loic.amez-droz@alumni.epfl.ch

1000 Brussels
BE

Skills

Languages
- French: native
- English: good
- German: intermediate

Technical
- Process methods
- Design for Assembly
- Embedded systems
- Control systems
- Electromechanics
- Electronics
- Microstructures
- Optics
- Signal processing
- Machine Learning
- Polymechanics
- PCB soldering
- PCB design

Management
- System engineering
- Product design
- Accounting
- MS Office

3D Construction (CAO)
- SolidWorks
- PTC Creo
- CATIA

Programming
- Matlab
- Python
- C
- LabVIEW

Design
- Adobe InDesign
- Adobe Illustrator
- Altium Designer

Loïc Amez-Droz

PhD Student in Aerospace & Mechanical engineering

Education

2020 - now, *PhD Student,* Université de Liège & Université Libre de Bruxelles
Instrumented flexible glass structure
Under the supervision of Prof. C. Collette and Prof. P. Lambert
Funded by Université de Liège

2016 - 2019, *Master of Science,* École Polytechnique Fédérale de Lausanne (EPFL)
Master in Microengineering oriented in Robotics
Minor in Space Technologies

2011 - 2015, *Bachelor of Science,* EPFL
Bachelor of Science with fundamental knowledge in microengineering

Experience

2019 - 2020, *System engineer - MCA Benelux Consultant,* Alstom Belgium
Automatic Train Operation, edit the Alstom solution requirements

2018 - 2019, *Master thesis in industry,* E.M.S. Electro Medical Systems SA
Improve the control of an ultrasound transducer for a dental application

2018, *R&D engineer trainee,* Advanced Microfluidics SA
Industrial adaptation of a micro-pump: functional specifications, process and assembly methods selection, design and material optimization and calibration automating.

2017 - 2018, *Head of Avionics,* EPFL Rocket Team
Creation of the rocket's whole electronic design (PCB design, sensors, telemetry and control systems integration) and software, simulation, airbrakes and ground station team management

Semester projects

2017, *Smart soles,* Integrated Actuators Laboratory (LAI)
Magnetorheological actuator control electronics design: actuator function tests, actuator coupling in order to spread the load in movement and building of a test and demonstration bench

2016, *Automated recording system to monitor grasshopper abundance in natural environments,* Electronics and Signal Processing Laboratory (ESPLAB)
Machine Learning project on Matlab: GMM Classification, regression, algorithms optimization and new database processing

2012, *Mechanical planetary design,* 3D construction project
Computation of drive reports and adjustment tolerances, 3D construction on PTC Creo, drawings

Other experience

2013 - 2018, *volunteer firefighter,* SIS des Montagnes Neuchâteloises
Fire interventions and floods

2017, *Graphics leader,* FORUM EPFL
Creation of magazines, books (ex: Livre des Entreprises 2017 - 384 pages, 3000 copies), posters and other illustrations

2015 - 2016, *Quartermaster 2nd class,* Armored exploration troops, Swiss Army
Troops accounting (200 people), sustenance plan management, trade negotiations, transport and cantonments organization and staff management
Released from military obligations

Award

2018, *Jim Furfaro Award for Technical Excellence,* Spaceport America Cup, NM USA
Team award (EPFL Rocket Team) obtained in New Mexico during this international contest of student made rockets

Personal interests

Swimming (6th of Switzerland in open water), Caving, alpine Skiing, windsurfing, film festivals, antic Mediterranean mythology.