

THE COUNTDOWN
COMPANY
ENGINEERING OFFICE

THE COUNTDOWN COMPANY

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THE PROJECT ACCELERATOR FOR YOUR ENGINEERING



Malo Goury du Roslan
CEO



Julien Rey
Lead Engineer



Eric Brunner
CTO



Emilien Mingard
Co-founder



H eloise Boross
Co-founder



Guilain Lang
Co-founder



Christian Cardinaux
Co-founder

● HISTORY

The Countdown Company finds its roots in EPFL's student association for rocketry. Before founding an engineering office together, these same engineers founded the EPFL Rocket Team, today among the university's most popular student technical associations. Already part of the core team in a group counting 30 students, we have demonstrated exceptional engineering and entrepreneurial skills, also recognized overseas at the Spaceport America Cup in New Mexico, USA, in 2018.

Over these years, we have built up our strength as a team able to take up complex challenges and develop high quality engineering solutions.

● OUR VISION

Space brings us together, fascinates us and pushes us to explore new horizons. We aim to develop The Countdown Company into a R&D center for space technologies in Switzerland. In addition, the various academic and professional backgrounds of our members allow us to boost a wide range of engineering projects in the domain of space, but also aeronautics, automobile, robotics and general mechanical engineering. We believe that the best engineers must master the complete development process of a product from definition, to design, analysis and all through manufacturing. At the Countdown Company we aim to deliver these skills in a convenient package tailored to your need. We are here to help you meet your deadlines and infuse innovation in your projects, making the world a bit more exciting every day.

● OUR VALUES



Technical excellence

functional, simple and optimized solutions



Innovation

young minds close to the latest materials and technical processes



Responsiveness

competitive mindset, ready to answer new challenges with tight deadlines



Flexibility & Agility

tight-knit pluridisciplinary team solving problems together for more than four years

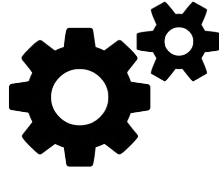
COMBINE OUR SERVICES FOR YOUR NEED

Whether you need a complete design iteration, the manufacturing of a prototype, a test campaign, an analysis of a part, a feasibility study or any engineering power in a project, we would gladly help you by providing fast, agile and tailored solutions. Pick and choose the skills you need from our expertise fields:



SPACE TECHNOLOGIES

- Spacecraft design
- Mission design
- System engineering
- Breadboard & engineering model
- (Sub)orbital mechanics & simulation
- Hybrid motor design
- Airbrakes & recovery system
- ADCS (attitude control)



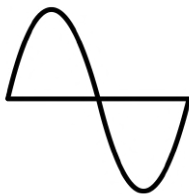
MECHANICAL ENGINEERING

- Complex system design
- CAD/CAM software
- MEMS design
- MEMS & optomechanical design
- Electro-mechanical systems
- Precision mechanisms
- Test bench
- Multi-body system
- Mobile robots



ANALYSIS AND SIMULATION

- FEM structural & modal analysis
- FEM electromagnetic analysis
- Thermal analysis
- Fluid mechanics
- Compressible & continuum mechanics
- Problem modelling
- Test data acquisition
- Data analysis



ELECTRONICS & SIGNALS

- Classical and model predictive control
- Embedded systems
- Closed Loop control
- Logic systems
- Sensor design & integration
- Python, C, C++, VHDL, Java
- Image processing
- Automation system design & integration
- Robotics



SYSTEM ENGINEERING

- Requirements definition
- Contingencies and margins
- Validation plan definition
- System integration
- Work Breakdown Structure
- Block diagram
- Test campaigns





MANUFACTURING

- Milling, turning
- 3 axis CNC
- FDM additive manufacturing
- Welding (alu, stainless, CrMo)
- Mechanical adjustment
- Composite parts
- Assembly and integration
- Plate slitting
- Hydraulic press

CONTACT US FOR A FAST QUOTE OF YOUR TAILORED SOLUTION

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Matterhorn II Rocket launch,
June 2018,
Spaceport America, New-Mexico, USA
EPFL Rocket Team