



roboloon



Master Thesis | Propulsion System for an LTA Aerial Robot

You want to make the world a better place? – So do we! We are a startup at the University of Stuttgart whose goal is to revolutionize the inspection of extensive infrastructure such as forests, power grids, pipelines and waterways. Accelerated by the increasingly extreme conditions of climate change, defects in this sensitive infrastructure are increasingly leading to catastrophic environmental damage such as forest fires, oil spills or flooding. With our autonomous, solar-powered airships, we want to achieve a quantum leap in terms of endurance, efficiency and safety compared to conventional inspection methods. Deployable at the touch of a button from a network of drone hubs, our airships become flexible, peaceful helpers from the air.

Your tasks:

In order to further improve the efficiency and flight time of our airship, you will investigate new types of propulsion systems. You will work on all aspects of system development:

- Defining the requirements with the team.
- Conceptualization of various alternatives and selection based on research and calculation.
- Designing the mechanical and electrical components.
- Design and simulation of the propulsion system using CAE.
- Construction of the propulsion system.
- Testing, characterization and, if necessary, improvement of the propulsion system.

Ideally, you should:

- Study aerospace engineering, mechanical engineering, mechatronics or a comparable course of study.
- Have knowledge of CAD.
- Have experience in (aircraft) model making (optional).
- Enjoy identifying, analyzing and solving problems.
- Work with a great deal of initiative, personal responsibility and motivation.

We offer:

- An open, appreciative team culture and super nice colleagues from all over the world.
- Great creative freedom in direct exchange with the founders.
- Remuneration: 556 €/month
- Airships! ... What's cooler than airships? ;)

Start: April 2025 (or later)

Duration: 6 month

Sounds like just the right thing for you?
Then we are happy to hear from you!



Dr.-Ing. Daniel Wibbing
daniel.wibbing@roboloon.com
0163 6980567

roboloon UG
Nobelstr. 15, Stuttgart
roboloon.com