



Design, build and Launch of a Re-entry CubeSat



## Function:

## Material engineer

Two open vacancies

## Aether's project

The Aether Student CubeSat team brings together young Belgian engineers who are passionate about space technology. We are designing a CubeSat: a nano-satellite small enough to hold in your hand. In the past decade, the CubeSat standard has enabled countless new innovations in the space industry, and we are determined to uphold this tradition! Aether is focusing on the area of re-entry: creating the technology that will allow future CubeSats to safely re-enter the atmosphere and land on Earth after carrying out their experiments in orbit. This will allow scientists to analyze samples and get even more results out of their experiments, and all this with the affordability and accessibility that come with the CubeSat platform!

## Function description

As material engineer, you are responsible for the material selection of the Thermal Protection System (TPS) that will be used in the heat shield of Aether's CubeSat. In addition, you will test the materials, manufacture the design of the heat shield and ensure the survival of the CubeSat's re-entry. Within this field, there are two major topics, namely "Ceramics" and "Flexible heat shield". The first one focuses on the materials that will be used in the nosecone of our heat shield, namely ceramics. This is the part that will experience the highest heat loads during the re-entry trajectory. On the other hand, the second topic focuses on the foldable flexible heat shield, which needs to be folded into one CubeSat unit and will inflate itself to deploy.

## What do you gain?

- 🔗 A unique engineering experience within an exciting space mission.
- 🔗 Create added value for your CV and the team.
- 🔗 Improve your (soft) skills on many aspects.
- 🔗 Be part of the team that will revolutionize the CubeSat platform.
- 🔗 Connection to a wide network of aerospace companies.

## Profile

- 🔗 Minimum bachelor's degree.
- 🔗 Experience with material selection procedures.
- 🔗 Knowledge of material science or chemistry.
- 🔗 Basic knowledge of CAE: Python and CAD.

### BONUS

- 🔗 Knowledge of ceramics or fabrics.
- 🔗 Knowledge of MATLAB or GRANTA selector.



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## Get in Touch



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