

# Design of a CubeSat On-board Computer



We are looking for two motivated EA master students.

## Project Description :

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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!

## Thesis description :

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This thesis revolves around developing the architecture for the on-board computer, controlling the behaviour of the different satellite subsystems. The communication between the modules will be performed via CAN-bus technology and is the result of a previous master thesis on this subject.

## Thesis objective :

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During this thesis, you will work together with the Aether student team. The requirements for the onboard computer rely heavily on the needs of the mission and of each subsystem, which the Aether team is working on in parallel with this thesis.

## Profile :

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- Digital electronics and design
- Software development
- Computer technique, Microcontrollers and Operating Systems
- Electronic Design and interfacing

## What do you gain ?

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- A unique engineering experience within an exciting space mission.
- Create added value for your CV and the team.
- A team of students willing to help in any way possible.
- Be part of the team that will revolutionize the CubeSat platform.

If you are interested? Please contact us at [recruitment@aetherspace.be](mailto:recruitment@aetherspace.be) .

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