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 ${\tt CSUM-M-HR-PROP\_Internship\ Proposal\_New\ RF\ connector\ design\ \_v1}$ 

Author: HESSE SEBASTIEN

Field: Mechanics



# **INTERNSHIP OFFER**

Title: New RF connector design

## 1 UNIVERSITY SPACE CENTER OF MONTPELLIER

The University Space Center of Montpellier (CSUM) is the French leader in the development and operation of nanosatellites developed by students. It has acquired in-depth competences in the field of design, manufacturing, testing and operation of nanosatellites and their subsystems, as well as in the area of space project management and product assurance in the framework of university space projects. The CSUM has an AIT (Assembly Integration and Test) Facility, a CDF (Concurrent Design Facility) and both UHF and S-band Ground Stations. The CSUM develops its own 1U and 3U CubeSat nanosatellite platforms with the support of the Van Allen Foundation and both the French and the European space agencies.

### 2 INTERNSHIP DESCRIPTION

## Description of the tasks:

The goal of the internship is to achieve a new design of RF connector (coaxial). We use coaxial cables connecting our control center and the antennas (roof) to send remote controls and receive in-flight data from our satellites. The goal is to improve and make our TM / TC system more reliable. The realization of this project will also allow to reduce the power losses and to obtain a more compact solution. For this, the student will identify and select solutions to meet the specifications.



# Skills:

- CAD software (Fusion360, FreeCAD or SolidWorks)
- Mechanics
- Knowledge in Radio Frequency (optional)

Language: At CSUM, we speak English, but if you speak French, that is a bonus!

Level: IUT/Degree/Master

Location: University of Montpellier - University Space Center - 950 rue St Priest 34090 MONTPELLIER

Preferred starting date: From January 2021

Duration: 2 to 6 months

Remuneration: From the 45th day of presence, minimum 3.9  $\in$  / h, in accordance with French law.

Supervisor, Function at CSUM: SEBASTIEN HESSE - ASSISTANT ENGINEER

#### 3 CONTACT

Please upload your application at: <a href="https://csu.edu.umontpellier.fr/en/job-offers-internship/">https://csu.edu.umontpellier.fr/en/job-offers-internship/</a>

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