

File name:  
CSUM-M-HR-PROP\_Internship Proposal\_Rotor for satellite Tracking  
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Author: HESSE SEBASTIEN  
Field: Mechatronic



## INTERNSHIP OFFER

**Title: Rotor for satellite tracking**

### 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 aim of the internship is to continue the design of an engine control system for satellite tracking in orbit. The tracking system is an essential part of receiving flight mission data. A prototype has already been produced. The student will be in charge of the continuity of the design and implementation of system improvements. For this, the student will identify and select technology solutions to meet the specifications.



#### Skills:

- Language (C, C++, Python)
- Linux Operating System
- RaspBerry Pi setup and configuration
- Electronics
- Mechanics, servoing and regulation (Gear, PID, etc..).

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

Level: Master, Engineer school

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 € / h, in accordance with French law.

Supervisor, Function at CSUM: SEBASTIEN HESSE - ASSISTANT ENGINEER

### 3 CONTACT

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