

INTERNSHIP OFFER

ROB3A EPS hardware test and validation

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

Context: For the ROB3A mission, the Electrical Power Subsystem (EPS) is responsible for energy harvesting, storing and distribution on the satellite.

Description of the tasks: The student will participate in ROB3A EPS hardware tests and validation :

- Design PCB for tests
- Sensors calibration
- Test electrical behavior of EPS components
- Test the EPS on the ROB3A testbench
- Write reports for each test
- Test different components in the thermal chamber
- Responsible for planning and implementing test strategies during development
- Creation and execution of tests on demand from analysis, requirements
- Provide design feedback according to testing results
- Provide support to the satellite operations and design team



Figure 1: Logo of the ROB3A mission.

Skills/Languages:

- Experience with Hardware/Software Development, Circuit Design, Electronics parts
- Experience in circuit analysis
- Laboratory equipment (scopes, meters, analyzers).
- Circuit board design (Eagle)
- C
- Write documentation and deliver documents

Plus (not required) :

- Git
- Matlab or Python

Level: Licence

Location: CSUM Montpellier – Campus St Priest – Building 6

Preferred starting date: September 2021

Duration: Around 4 months

Supervisor, Function at CSUM: Sara Vega Martinez

File name:
CSUM-M-HR-PROP_Internship Proposal ROB3A EPS hardware test and
validation_2021-07-23_v1.0.0.odt
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Stipend: 3.90 euros/worked hours, 35 hours/week.

3 CONTACT

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