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CENTRE SPATIAL UNIVERSITAIRE MONTPELLIER-NIMES

ROBUSTA 3A THERMAL ANALYSIS

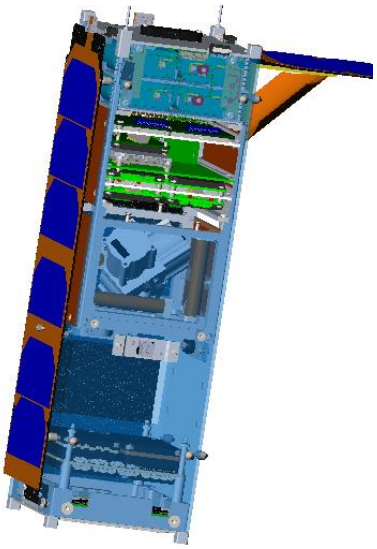
1. Background

The mission objective of ROBUSTA-3A Mediterrannée is to demonstrate the ability of a 3U CubeSat based system to collect meteorological data onboard a ship located in the western Mediterranean Sea (between France, Spain, Italy and North Africa) and rapidly transfer this data to Météo France for storm forecasting.

The Cubesat is developed by Student as the Centre Spatial Universitaire the Montpellier. One important part of the satellite development is to perform the thermal model to validate the design from the Critical Design Review. A thermal test is also planned to be performed in parallel to the modelling and analysis.

2. Internship Objectives

- Perform a small bibliographic research on the specific aspect of satellite thermal design. If needed, "get up to speed" on the physics of thermal transfer and lumped parameter calculations.
- Get familiar CAD Model of Robusta-3A with the latest information
- Simplify the CAD Model so that it can be uploaded into Thermica
- Interact with the system engineers, the specialists and other students in order to define de calculation cases and parameters
- Build the thermal model
- Run the calculation
- Write a report and a set of recommendation for the design of the Robusta-3A Satellite



Internship Condition

- The internship will be of 4 months to 6 months
- The internship shall take place any time between 1st January and 31st July with a break possible
- The internship will take place in Montpellier
- A report shall be written to document the work