

3D PRINTING FOR CUBESAT

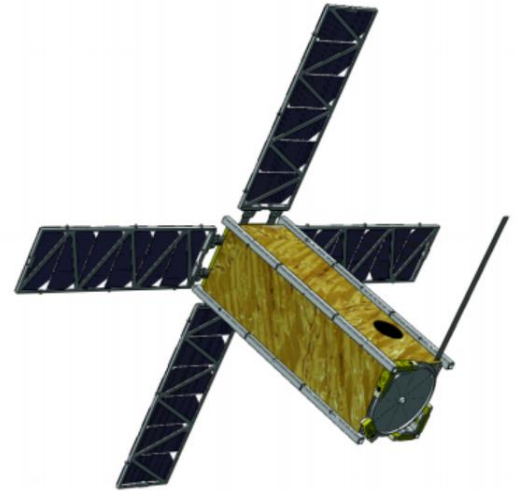
1. Background

The mission objective of ROBUSTA-3A Méditerranée 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. Two to three large pieces have been designed. As of today, it is not sure how they would be manufactured (machining or additive manufacturing). Furthermore they are heavy and mass reduction shall be studied.

2. Internship Objectives

- Perform a small bibliographic research on the specific aspect of additive manufacturing and satellite mechanical design.
- Update the functional analysis of each of the three pieces
- Perform a preliminary design with CAD software
- Perform optimization with a dedicated topological optimization software
- If times allows print prototypes and test



Internship Condition

- The internship will be of 4 to 6 months
- The internship will take place in Montpellier
- A report shall be written to document the work

