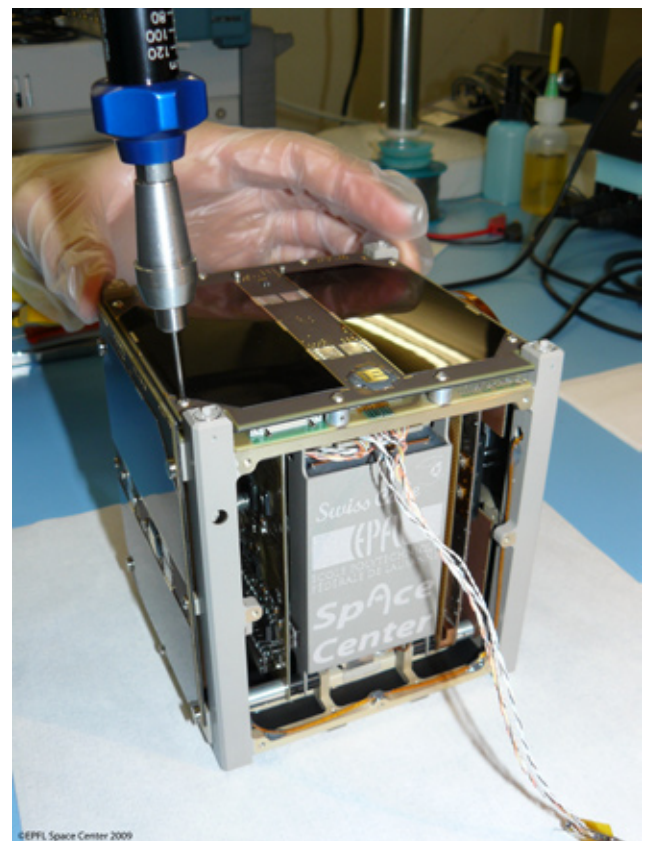


Project objectives

SwissCube has three objectives.

1. The main objective is educational and to show the students how to build a complex engineering system from A to Z like a satellite. From the conception of the satellite to the construction of the different parts, from the verification of the design to the environmental test of the satellites, and from the control of the satellite once in orbit, most of the tasks were performed by more than 180 students coming from different academic institutions
2. Scientific: Though SwissCube is rather small (10x10x10 cm) and weights less than 1 Kg, it carries a small telescope which will allow to obtain images of the nightglow, a luminescence phenomena occurring at 100 km of height above the Earth surface.
3. Technological: If the nightglow phenomena can be correctly mapped, then an opportunity arises to use the technology developed in the SwissCube programme to produce a new type of Earth sensors that equipped most of satellites flying today. Since the nightglow takes place in a very limited region in the high layer of the atmosphere and at well-know locations, it might be possible from the measurements to retrieve the direction towards the centre of the Earth and therefore enabling the design of a new generation of Earth sensor.



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