

52nd IAF STUDENT CONFERENCE (E2)
Educational Pico and Nano Satellites (4)

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LOW COST PICO SATELLITE BUS FOR EDUCATIONAL AND PERSONAL SCIENTIFIC SPACE
MISSION**Abstract**

Humanity's passion for new discoveries and understanding the world that we live drove us to make extraordinary inventions and technologies. After centuries, humanity changed the way education was done many times, trying to fit different cultures and countries in a certain type of teaching. In Brazil, education has been out of date for a long time, since it hasn't changed enough with the technological and social changes. So to face this problem, the mission GalaxySat-1 is the first step to bring new forms of educational ideas with a low budget space mission. The GalaxySat-1 is a PocketQube standard satellite with 5x5x5cm, 250g of mass and is defined as 1P. The first mission with the satellite will study South Atlantic Magnetic Anomaly (SAMA) because the failure of the magnetic field is at this moment impacting many countries in South America and some in Africa. This situation can cause problems in the telecommunication, satellite health, GPS position triangulation, and increase natural events. One important data needed for this mission is the satellite position to combine with payload data and put in the map to make visual graphics. All data will be free and anyone can take and make individual measures and compare with others satellites data. This is another way to encourage students to learn new contented outside of classroom. His work will approach lessons learned in a Brazilian high school student about the mission, from launching their own nanosatellite to taking the data and studying anywhere that it will engage kids and teenagers become STEAM scientists.