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NANOSATELLITE VIBRATION TEST EQUIPMENT

Abstract

There is now a considerable increase on the part of universities in the incursion into the development of nanosatellite missions. In the aerospace sector, almost every operation is full of risks and big investments of time and money, and to locate a nanosatellite in orbit, even smaller, is not the exception. Therefore, it is imperative to know if the nanosatellite will be prepared to surpass any critical moment. The rockets or launchers in which the nanosatellites are placed for going to space, produce strong vibrations that can affect the nanosatellite. The primary objective of this work is to design a vibration test equipment that will help determine the resistance of a nanosatellite against the sudden movements that can be experienced within the space launcher. And for that, what is wanted, is that this equipment can generate the vibrations and recreate them as equal as they are in an original launcher. The idea is to guarantee that the nanosatellite will not present problems or failures during the launching and putting in Orbit. This step would be the most critical moment for a nanosatellite, therefore, what is sought with this is to ensure the significant investments of study time and money made by the government or any entity dedicated to the scientific and technological development, since this would have the security that will fulfill the objective for which was planned.