

6. Conclusion

In a nutshell, the CubeSat Frame structure is able to withstand the launch static and dynamic vibrations without failing. This preliminary finite element analysis has revealed a significant margin of safety and adequate survivability in terms of worst-case static loading and imposed failure modes.

7. Recommendation

The acoustic vibrations appear to induce the most critical dynamic response. In this case, the maximum deflections at the center of the plate were observed to occur at the entities fundamental frequency. It is recommended that components mounted at the center of these plates be appropriately bonded and inspected after environmental testing.

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Biography

Kudzanai Sekerere is a student who recently completed a Bachelor of Engineering (Honours) Degree in Mechatronics at the Chinhoyi University of Technology in Zimbabwe. He has interned for a year with the Zimbabwe Power Company where he has attained experience in thermal power generation. His main interests are in the fields of industrial automation, instrumentation and control and robotics.

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