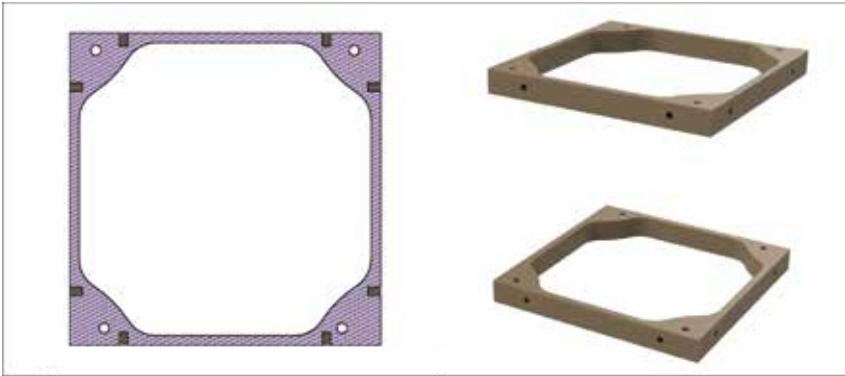
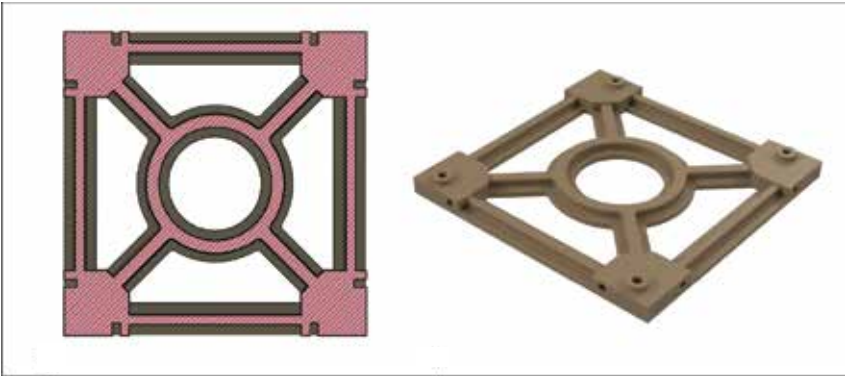


Design, Analysis and numerical testing of the structure of a 3U nano-satellite manufactured using FDM

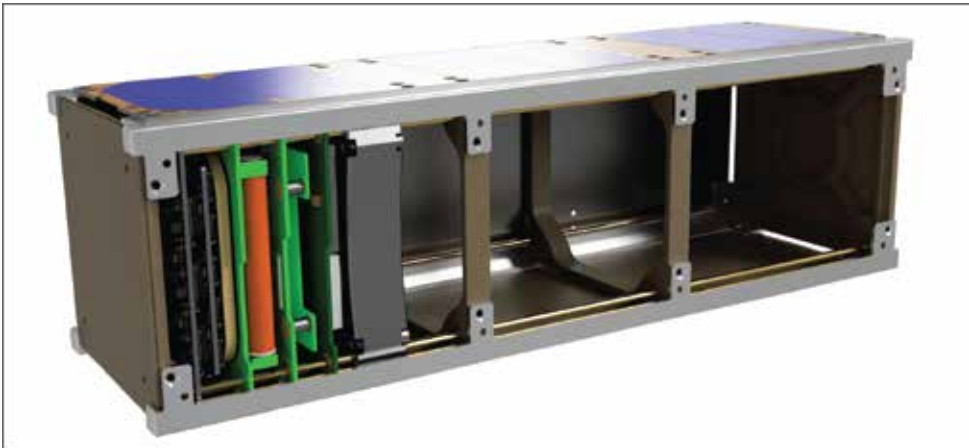
DESIGN & MATERIALS



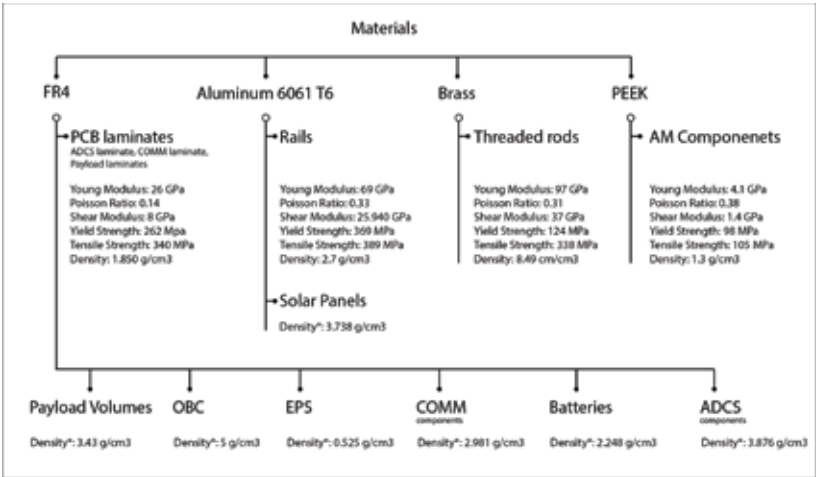
Design of the support brackets



Design of the +Z and -Z bases

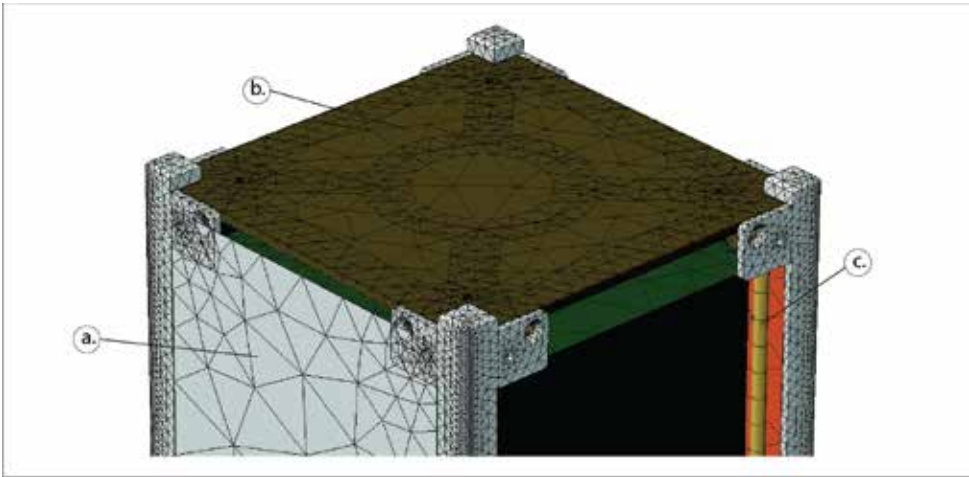


Assembly of the CubeSat

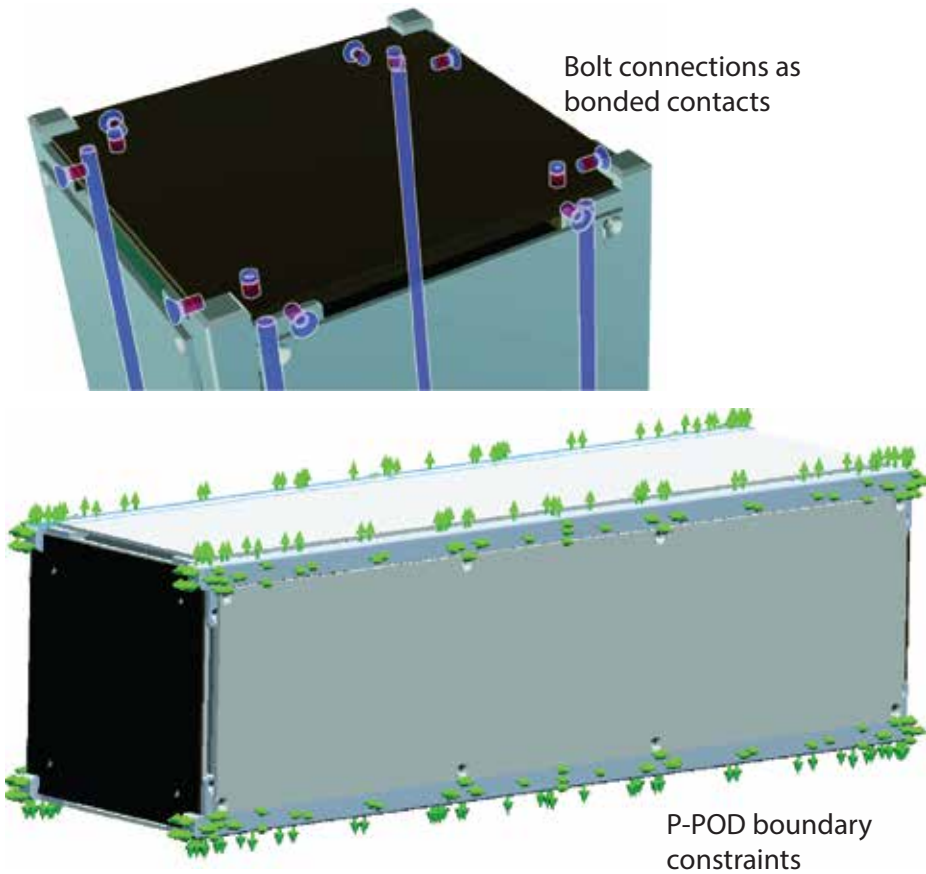


Materials Assigned

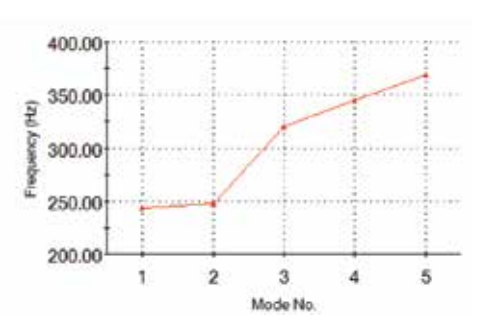
MESHING & CONSTRAINTS



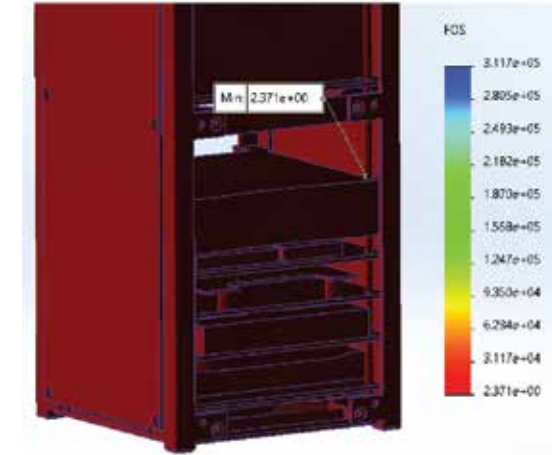
a) Shell elements b) tet10 elements c) beam elements



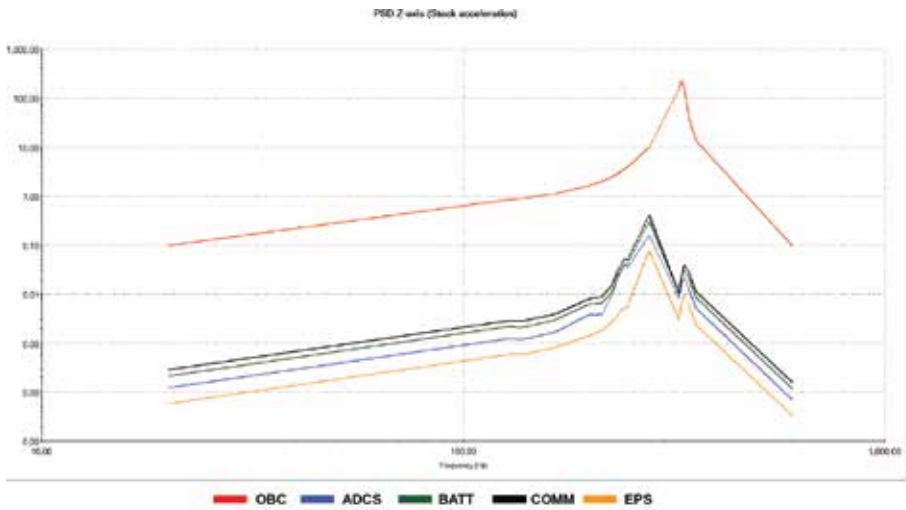
RESULTS



Eigenfrequency modes of the CubeSat



Minimum factor of the safety of the structure in the most unfavorable loading scenario



PSD response of the central node of each electronics module in the PCB stack (excitation along the Z axis)