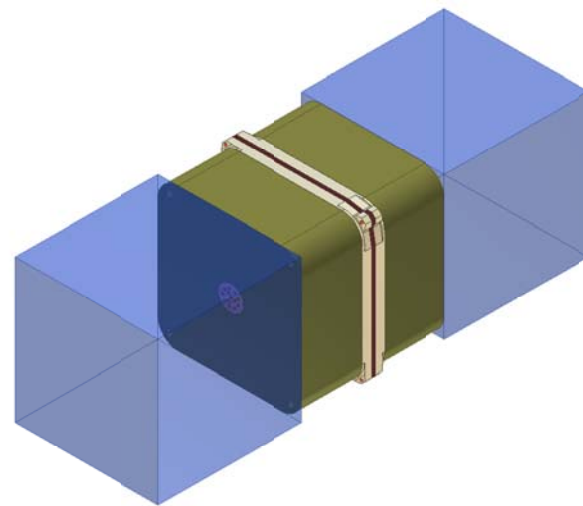


**PUBLIC PRESS RELEASE**

CU Aerospace of Champaign, IL, and VACCO Industries of South El Monte, CA, have been awarded an Air Force contract to develop and test a 1 liter primary propulsion system and attitude control system (ACS) for 3-Unit CubeSat nanosatellites with 1 year life. A high density liquid propellant was chosen from 350 candidates to maximize CubeSat maneuvering capability. The ACS provides thrust vector pointing, CubeSat orientation, and precision maneuvering. Primary thrust is 4 milli-Newtons, system power is 5.3 Watts, and maximum total impulse is 963 Newton-seconds. Minimum impulse bit of the precision ACS thrusters is 68 microNewton-seconds.

The CU Aerospace innovative electric propulsion microthruster employs an electric discharge to accelerate the propellant with extremely low electrode and insulator erosion over the life of the thruster.

An important system innovation is the location of system electronics inside the 690 cm<sup>3</sup> propellant tank. This approach is volumetrically efficient and also reclaims waste heat from the electronics to aid in propellant heating while cooling the electronics.



**Propulsion Unit for CubeSats (PUC) system in a 3-Unit configuration.**

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