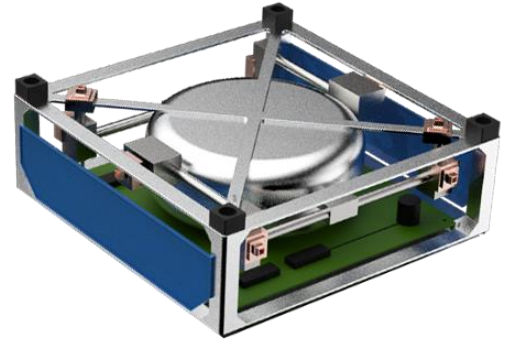


Attitude and Orbit Control System (AOCS)

Aurora Attitude and Orbit Control System is a resistojet propulsion module that uses water-based propellant. The module is capable of attitude adjustments and orbital control maneuvers. An array of 12 individual thrusters ensure scalable and efficient thrust and spacecraft control. Primary use case for AOCS is to prolong the effective lifespan of a satellite by being capable of detumbling the spacecraft and ensuring optimal attitude and orbital control depending on the mission requirements.



Modular structure for custom requirements

Modular structure ensures perfect fit and utilization for customer's needs. AOCS module's form factor is from 0.3 to 1 U. The module's size is defined mainly by the propellant tank, which can be selected for the mission's needs ensuring efficient use of volume and mass budgets. Additional magnetorquers can be added depending on mission requirements.

Specs and features that can be modified for customer's needs:

- Tank size (Amount of fuel carried & overall size of the unit)
- Thruster power requirement
- Magnetorquers

Safety

Water-based propellant ensures safety both during the launch as well as during transport to the launch site; no dangerous chemicals are involved. A full tank's pressure is below 50 kPa, fulfilling all CubeSat launch standards.

Specs (Preliminary)

Power*	0.5 - 5 W (idle 50 mW)
Thrust*	0.2 - 2 mN
Isp	100 - 130 s
Impulse	75 - 300 Ns
Wet mass	0.35 - 1.33 kg
Dry mass	~ 250 - 350 g
Form**	10 x 10 x 3 - 10 cm
Date available	Samples: Q3 2020 Deliveries: Q4 2020
Price:(vat 0%)	80k€+

* Per active thruster

** Larger variants such as 20 x 20 x 5 - 20 cm can be custom ordered