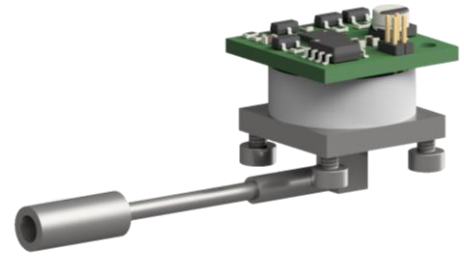


## Orbital Thruster (OT)

Orbital Thruster is a miniaturised resistojet propulsion module that uses water-based propellant. OT module is designed to be plug-and-play ready, as only power and connectivity wiring are required from the satellite. Size wise OT is tiny, but it still packs a punch as we estimate the nano size variant to have enough propellant for 100 firings. OT is perfect for propulsion experiments and orbital adjustments prolonging satellite's lifespan.



### Small size to ensure large payload

Orbital Thruster module can be ordered in three different size variants: Nano, micro and small. Nano OT module measures 20mm \* 20mm \* 20mm making it one of the smallest thruster modules in the world. Larger variants which include bigger propellant tank are also possible to order. To achieve full attitude and orbital control we recommend using Aurora AOCS module.

### Modular structure for custom requirements

Multiple thrusters can be installed to a single propellant tank. Optimal placement for the module is at the end of the satellite as OT module is designed for orbital manoeuvres.

### 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)

	Nano	Micro	Small
Power	0.5 – 5 W (idle 50mW)		
Thrust	0.2 – 2 mN		
Isp	100 – 130 s		
Impulse	1 Ns	20 Ns	200 Ns
Wet mass	15 g	60 g	300 g
Dry mass	14 g	40 g	100 g
Form	20 x 20 x 20 mm	30 x 30 x 30 mm	30 x 100 x 100 mm
Date available	Samples: Oct 2019 Deliveries: Dec 2019		
Price: (vat 0%)	12k€+		