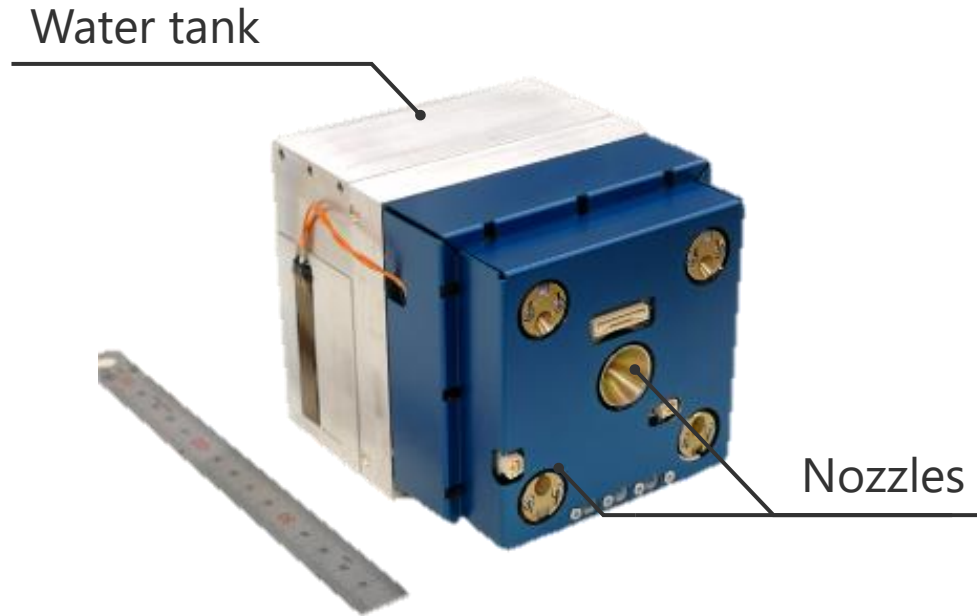


- ⚡ Low pressure system  
(Less than 60 kPa)
- 📏 Scalable water tank  
(From 0.1 kg to required mass)
- 🔧 Redundant flow control system  
( 1 fail-safe valve system)

- First model was demonstrated aboard a 3U ISS-deployed CubeSat in 2019.
- Additionally, two flight model thrusters are to be delivered in 2021 and launched by SLS and Falcon-9, respectively.

# Water Resistojet Thruster (single unit)

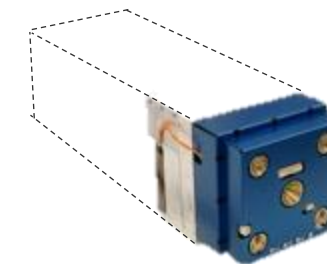


Thrust range	1.0 – 4.0 mN
Nominal Thrust	2.0 mN
Specific Impulse	70 – 100 s
Propellant mass	0.4 kg (1U) * upon request
Total Impulse	> 270 Ns
Thrust to power ratio	0.2 mN/W
Volume w/o tank	0.5U
Dry mass w/o tank	0.8 kg
Command Interface	UART, RS422
Storage temperature	0 – 68 °C
Operating temperature	4 – 49 °C
Supply voltage	5 V and 8 V

## Clustering



## Tank scaling



	1x unit (1U)	2x unit (2U)	4x unit (4U)
<b>Thrust range</b>	1 – 4 mN	1 – 8 mN	1 - 16 mN
<b>Specific Impulse</b>	70 s	70 s	70 s
<b>Power</b>	5 – 20 W	5 – 40 W	5 – 80 W
<b>Total impulse</b>	> 270 Ns	>540 Ns	> 1080 Ns
<b>Propellant mass</b>	0.4 kg	0.8 kg	1.6 kg
<b>Dry mass</b>	0.8 kg	1.6 kg	3.4 kg

	1x unit
<b>Dry mass w/o tank</b>	0.8 kg
<b>Volume w/o tank</b>	0.5U

- The Limitation of clustering or scaling is determined by only the mass, volume or power of a spacecraft.