



Sinclair Interplanetary (Rocket Lab)

Canada · founded 2001 · sinclairinterplanetary.com

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PRODUCTS

5

WITH DATASHEETS

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as of 20 August 2026

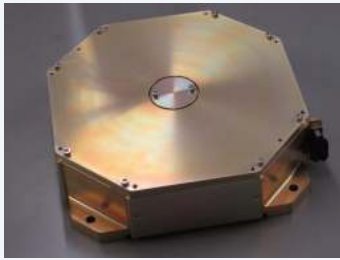


Sinclair Interplanetary (Rocket Lab)

Founded in 2001 by Doug Sinclair, Sinclair Interplanetary is a Toronto, Canada-based supplier of high-reliability attitude control hardware, software, training and expertise to the spacecraft community, with a primary focus on low-cost, rapid-schedule programs to produce micro- and nano-satellites. Sinclair Interplanetary pioneered vacuum-lubricated reaction wheels for picosatellites, nanosatellites and microsatellites, and builds high-performance star trackers and sun-baffles for small spacecraft. Its reaction wheel and star tracker product lines have well over 100 units on orbit across dozens of missions, including the SkySat constellation, the BRITE nanosatellite constellation, GHGSat-D and GHGSat-C, the Landmapper-BC series, BlackSky Global satellites, ALE-1/2, Momenus X-1 and NEMO-HD, among others. All wheels and trackers incorporate a built-in digital processor, are commanded over a serial bus, and report digital telemetry on speed, temperature, voltage, current and other health parameters. Rocket Lab acquired Sinclair Interplanetary in April 2020 for an undisclosed sum, integrating the team into Rocket Lab's Space Systems business while keeping operations and production in Toronto. The Toronto facility has since expanded to support higher-volume constellation manufacturing alongside continued development and sale of reaction wheels and star trackers. Some previously Sinclair-developed subsystems, such as magnetic torque rods and digital sun sensors, have since been licensed out to other manufacturers (Spaceflight Industries/BlackSky and NewSpace Systems respectively) and are no longer sold directly by Sinclair/Rocket Lab.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

Product catalogue



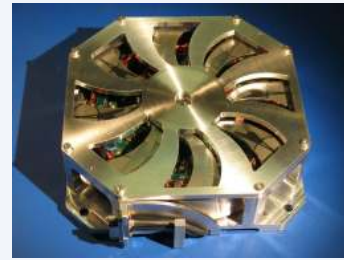
SINCLAIR INTERPLANETARY (ROCKET LAB)

1 Nms GEO Reaction Wheel

Radiation-hardened version of the heritage 1 Nms wheel, built for GEO and other high-radiation orbits.

Angular momentum capacity	1 Nms
Target orbit	GEO / high-radiation orbits
Radiation hardening	Rad-hard parts, shielded enclosure, active deep-charging mitigation
First flight deliveries	Scheduled Q1 2020
Control interface	Digital serial bus, commandable speed/momentum/torque

[price on request](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)

1 Nms Microsatellite Reaction Wheel

Sinclair Interplanetary's largest reaction wheel, suitable for 100 kg-class Earth-observation microsatellites.

Angular momentum capacity	1 Nms
Target spacecraft class	~100 kg Earth-observation microsatellite
On-orbit heritage	76 units on 19 spacecraft (first launch June 2016)
Control interface	Digital serial bus, commandable speed/momentum/torque
Telemetry	Speed, temperature, voltage, current, health status

[price on request](#)

[datasheet](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)

30 mNms Nanosatellite Reaction Wheel

Sinclair Interplanetary's first and most popular wheel design, sized to fit a 6U to 12U CubeSat.

Angular momentum capacity	30 mNms
On-orbit heritage	61 units on-orbit (first launch April 2008)
Form factor fit	6U to 12U CubeSat
Control interface	Digital serial bus, commandable speed/momentum/torque
Telemetry	Speed, temperature, voltage, current, health status

[price on request](#)

[datasheet](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)

400 mNms Microsatellite Reaction Wheel

High-torque, radiation-hardened wheel for high-agility remote sensing or science microsatellites.

Angular momentum capacity	400 mNms
Equivalent CMG performance	0.4 Nms CMG at 22.5 deg/sec gimbal rate
Target application	High-agility remote sensing / science microsatellites
Design focus	High torque, radiation hardness
Control interface	Digital serial bus, commandable speed/momentum/torque

[price on request](#)

[datasheet](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)
Reaction Wheels

Sinclair Interplanetary offers a range of high-reliability, vacuum-lubricated reaction wheels for picosatellites, nanosatellites, and microsatellites, featuring built-in digital pr

1 Nms Microsatellite Wheel suitability	100 kg Earth-observation missions
1 Nms Microsatellite Wheel units on-orbit	76 units on 19 spacecraft
1 Nms Microsatellite Wheel first launch	June 2016
1 Nms GEO Wheel features	Hardened version of heritage 1 Nms wheel, rad-hard parts, shielded enclosure, active mecha
1 Nms GEO Wheel suitability	High orbits
1 Nms GEO Wheel first flight deliveries	Q1 2020
400 mNms Microsatellite Wheel optimization	Torque and radiation hardness

[price on request](#) [datasheet](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)
Sinclair Star Tracker (ST-16RT2)

High-performance star tracker and baffle for small spacecraft, with 78+ units flown on more than a dozen missions.

On-orbit heritage	78+ units across SkySat, BRITE, GHGSat, Landmapper-BC, MKA-N, BlackSky Global, ALE, Moment
Product type	Star tracker with integrated sun-baffle
Interface	Serial digital interface, quaternion attitude output plus telemetry

[price on request](#) [datasheet](#)

Contact Sinclair Interplanetary (Rocket Lab)

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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