

**space  
satellite**



together  
we go further ADCS



together  
we go further

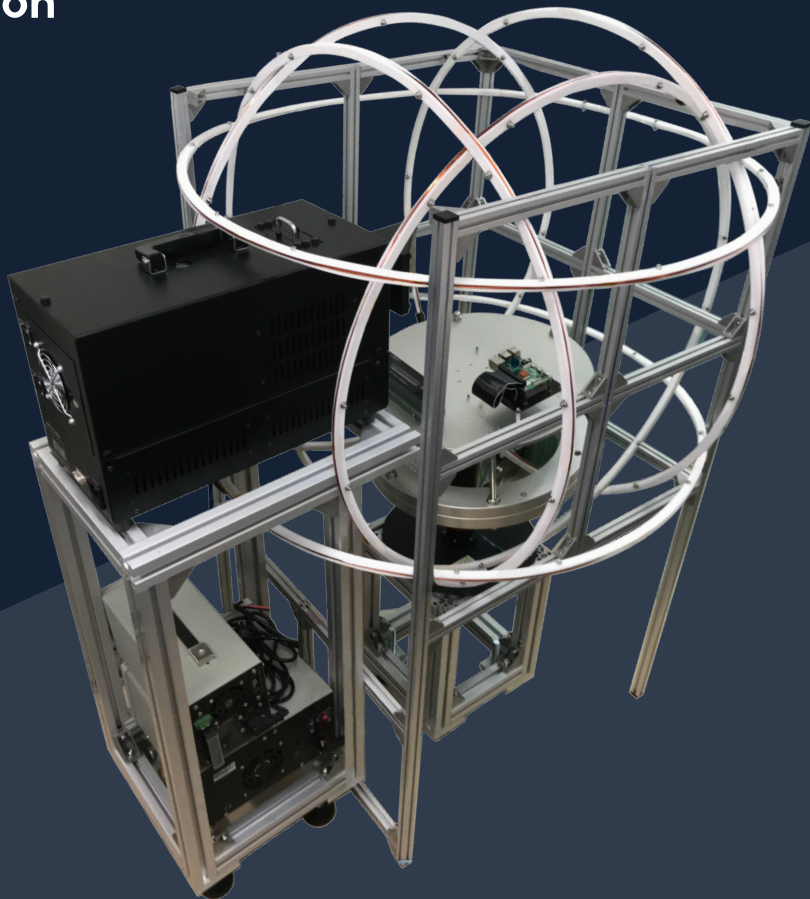
tensor tech is an innovator of satellite attitude determination and control systems, with expertise in guidance, navigation, and control.

we offer a suite of space-qualified products ranging from flight-proven subsystems to highly reliable components and scalability based on customer requirements.



# ADCS-Testbed

attitude  
determination  
control  
system  
testbed



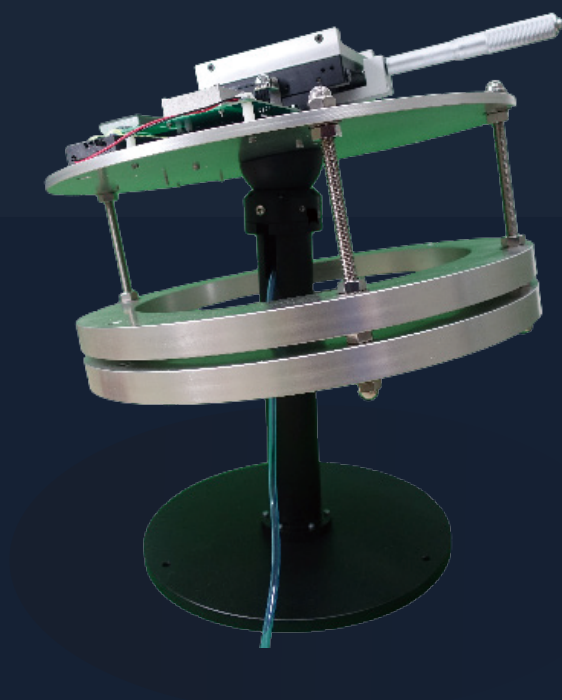
an attitude determination and control system ( **ADCS** ) testbed is required for **ADCS** examination and calibration. the testbed consists of an air-bearing platform, a triaxial helmholtz cage, and a solar simulator. this fully scalable testbed can measure the mass properties of the device under test, which is optional to the customer

## specifications

❖ <b>triaxial helmholtz cage</b>	
Max. magnetic flux density	1 gauss (adjustable)
Working area	350 x 350 x 350 mm (adjustable)
❖ <b>air-bearing platform</b>	
Manual adjusted x/y axis platform	
Turbine torque	5 $\mu$ Nm
Travel angle	$\pm$ 45 deg; Max. load 30 kg (16U CubeSat, adjustable for a larger load)
❖ <b>solar simulator</b>	
Spectral matching	AM0, Class A, ASTM
Spatial non-uniformity of total irradiance	< 2%
Time instability	< 1%
Light spot dimension	40 x 40 mm (adjustable)
Collimation	< 4 deg

# ADCS

air bearing platform



single board computer and tactical grade inertia measurement unit ( **IMU** ) are integrated onto the air bearing platform. moreover, readouts of the **IMU** are used to propagate and fuse the attitude of the platform. the determined attitude could be remotely accessed using the dedicated software and serve as a reference for improving the tested **ADCS**.

## specifications

mass		$\pm 10$ mg
center of mass		$\pm 0.1$ mm
moment of inertia		$\pm 2\%$

space has defined some of humanity’s most outstanding achievements, and it continues to shape our future today.

we are motivated by the impact we can have by bringing reliable technologies to our customers, as the company’s core spirit, “together, we go further”.

## our service



ADCS hardware in the loop



ADCS integration



AOCS performance analysis



mass properties measurement



jitter analysis and measurement



processor in the loop



original equipment manufacturing



original design manufacturing



# **ADCS** together we go further



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