

COBRA™ Gimbal

CubeSat Size 3 DOF, High Accuracy, High Reliability Gimbal



Transformative Technologies for
Space, Sea, Earth, and Air

The COBRA Gimbal is a low SWAP, high performance mechanism providing continuous precision pointing and end effector positioning over a full hemispherical workspace.

Capabilities

- 3DOF actuation - az, el, and extension
- Provides continuous pointing without inducing cable twist/wrap while eliminating slippings
- Large holding torque allows position to be rigidly held with motors unpowered
- Qualified to support 1200g end mass
- Self-Deployed Extension Post option available
- Controller options available

Specifications

Model	COBRA-C
Workspace	$> 2\pi$ sr
Pointing Resolution	< 120 arcsec
Max Slew Rate	> 50 deg/s
Mass	155g
Stowed Footprint	30mm
Stowed Stack Height	35mm
Operating Power	$< 5W$

- 3+ Year designed and tested system life
- Compatible with commercially available CubeSat structures



Variations

- Minor actuator assembly changes can increase mass capacity, resolution, or slew rates.
- Geometry changes can support increased workspace, reduced mass, and varied form factors.

