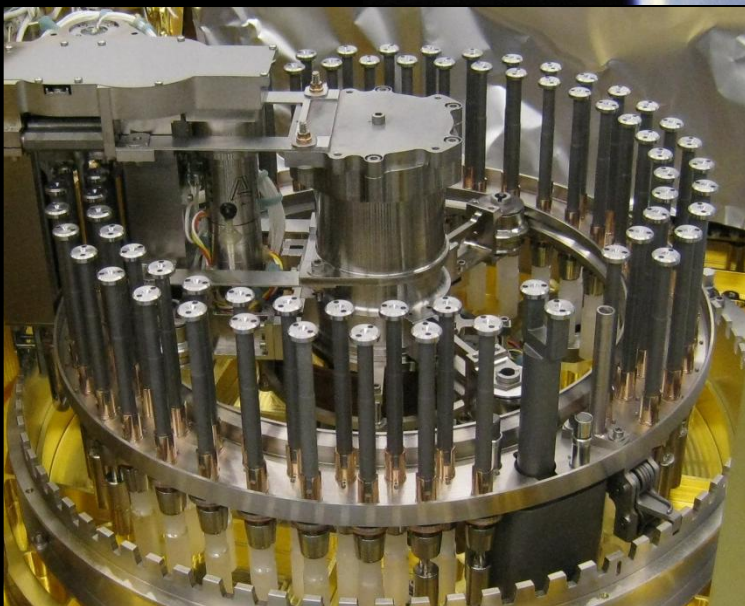
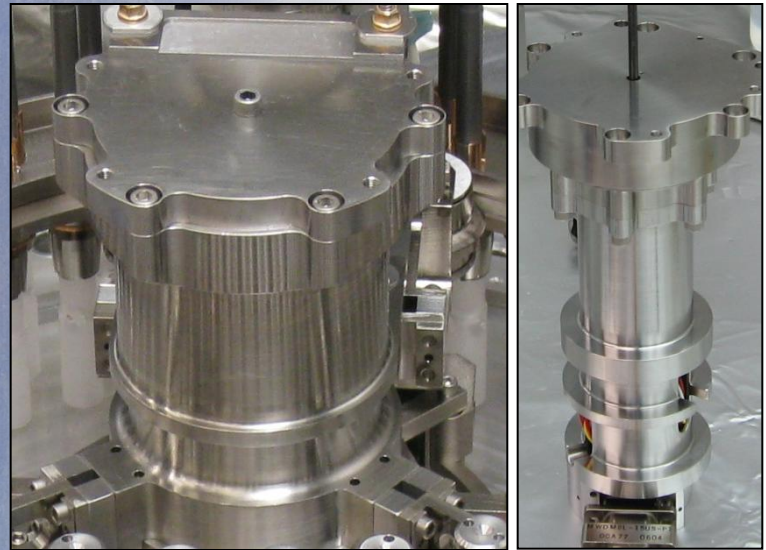


Curiosity Carousel Actuator

Description

Flight-qualified general purpose rotary actuator designed for the Sample Analysis at Mars (SAM) instrument aboard the Curiosity Rover. The actuator consists of a hall commutated brushless dc motor (3 phase stepper available) and planetary drive, Size 8 harmonic drive, and twist capsule capable of transferring power and signal across 690 degrees of total rotation.

Specification	Data
Mass	760 grams
Motor Types	BLDC 3 Phase Stepper
Steps/Revolution	30000
Output Step Size	0.012° (43 arc-sec)
Total Range of Motion	Up to 690°
Output Torque	20 lbf-in
Operating Temperature Range	-55 to +70°C
Power/Signal Transfer	18x signal (0.5 A) 4x power (2.0 A) *Other options available
Size	Ø2.50 X 5.04 in. (actuator only) Ø3.70 X 5.04 in. (incl. twist capsule)
Heritage	NASA Mars Science Lab.



Contact

Honeybee is ISO9001:2000 and AS9100C certified.

Honeybee Robotics
Spacecraft Mechanisms Corp.

Erik Mumm, VP – Director of Flight Systems
mumm@HoneybeeRobotics.com ph. 720-340-4491

