Actuator Name	Mass	size	Accuracy/Precision	Type	TRL	Comment
Aerocube-4 Retractable wings	NA	2 wings, each 9x10cm	N/A	Extending Wings	7	Uses wings to adjust in-track formation for 3 satellites
Blue Canyon Technologies Micro Reaction Wheel	150 g	43x43x18 mm	NA	Reaction Wheel	NA	Momentum: 18 mNms, Max Speed: 6000 RPM, Torque: 0.6mNm, Lifetime: > 3 years, Nominal power consumption: < 0.1W, Peak power: < 1.0W, Op Voltage: 5 to 15 V
BCT Integrated Attitude Control for Cubesats	< 0.7 Kg	< 10x10x5 cm (0.5U)	Spacecraft Pointing Accuracy: 0.003 deg (1-sig) for 2 axes, 0.007 deg (1-sig) for 3rd axis	Integration Package	NA	Spacecraft Lifetime > 1 year, Nominal Power consumption: <0.5 W, Peak Power: <2.0W, Slew Rate (8kg, 3U CubeSat): > 10 deg/sec
Sinclair Interplanetary RW-0.007-4	90 g	50 mm x 40 mm x 27 mm	NA	Reaction Wheel	7	Nominal Torque 1 mNm, Nominal Momentum 7 mNm-sec, Supply Power 0.1 W to 0.7 W
Sinclair Interplanetary RW-0.01-4	120 g	50 mm x 50 mm x 30 mm	NA	Reaction Wheel	7	Nominal Torque 1 mNm, Nominal Momentum 10 mNm-sec, Supply Power 0.1 W to 0.7 W
Sinclair Interplanetary RW-0.03-4	185 g	50 mm x 50 mm x 40 mm	NA	Reaction Wheel	9	Nominal Torque 2 mNm, Nominal Momentum 30 mNm-sec, Supply Power 0.1 W to 1.5 W
Berlin Space Technologies iACDS-100	250 g	95x90x32 mm^3	<<1 deg pointing , (30 arc-sec in Pitch/Yaw, and 200 arcsec in Roll for att. Determination)	Integrated ACDS product	6	Power (Nom/Peak): 0.5W/1.8W, Actuators: 3 Reaction Wheels, 3 Magnetorquer, Sensors: Star Tracker, 3-Axes MEMS Gyro, Magnetometer, Accelerometer
MAI-400 ADACS CubeSatShop	694 g	10 cm x 10 cm x 5 cm		Integrated ACDS product	7	Sensors: 3-axis magnetometer, coarse sun sensor, EHS camera, Actuators: 3 torque rods
MAI-300 Single Axis Reaction Wheel	317 g	68.5 x 68.5 x 33.0 mm^3	NA	Reaction Wheel	7	Max Torque: 0.625 mNm
MAI-201 Miniature 3-Axis Reaction Wheel	640 g	76.2 x 76.2 x 70 mm^3	NA	Reaction Wheel	7	Max Torque: 0.625 mNm
MAI-200 ADACS	907 g	100 x 100 x 78.75 mm^3	NA	Integrated ACDS product	7	Max Torque: 0.625 mNm