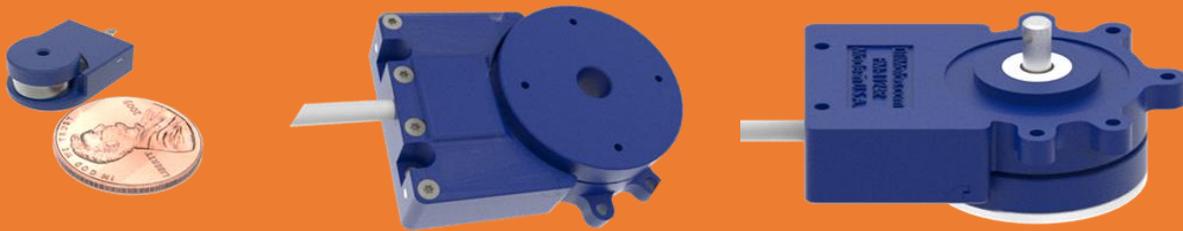


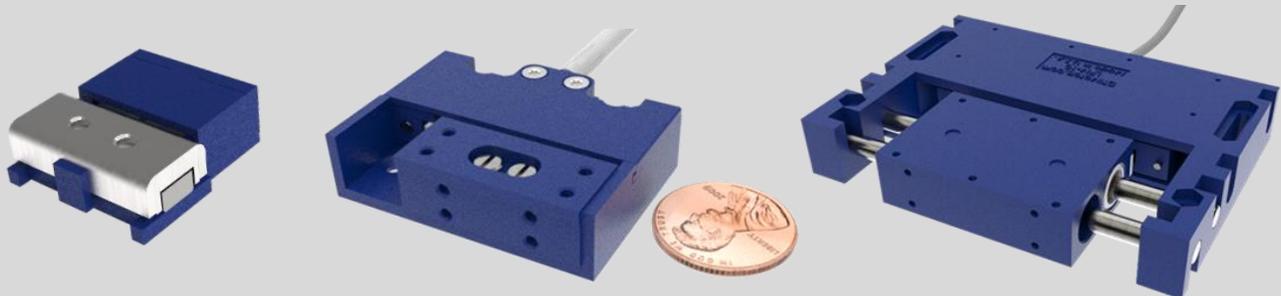


DISCOVERY TECHNOLOGY INTERNATIONAL

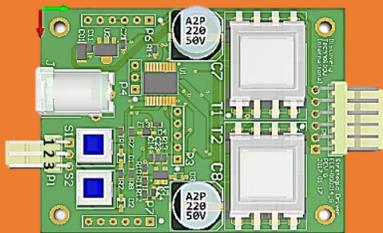
Discovery Technology International, Inc. ("DTI") is an advanced designer and manufacturer of precise motion and control technologies utilizing proprietary standing wave piezoelectric devices to create motors, actuators and related control electronics and software. Our technology replaces historic motors and actuators where precision, fast response, energy efficiency, lightweight, power density and affordability for OEM applications are important considerations for product designers and engineers in all industries.



Rotary Piezomotors



Linear Piezomotors



Open or closed loop control with encoder

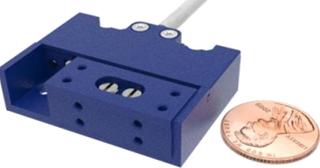
Control of piezo motor motion is straightforward and achieved using DTI's electronic driver PCB, or by incorporation of DTI's driver circuit into customer's own p.c.b. under license. Using DTI's driver board, motion is triggered via external signal source applied through three pins located on the driver board. Control is achieved by a train of electrical pulses supplied by a digitally controlled AC voltage source directly to the piezoelement. Motor speed is altered by varying either the repetition rate of the pulses or duration of each individual pulse (i.e. PWM). Modulation of the excitation voltage source enables the piezomotor to move side to side either continuously or in a precise stepping mode. The driver board also includes two buttons for manual control. Motor performance parameters can be adjusted with different firmware versions.

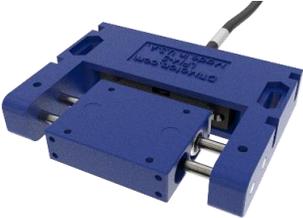
	RAS###AP3HA Series	Max Torque	>2.5mN.m
		Max Speed	900rpm
		Min. Step	<100 µrads
		Response	10-15 µsec
		Temperature	-20 to +80C
		Driver volts	5VDC
		Current	50-300mA
		Weight	4g
		Size (mm)	13x18x7

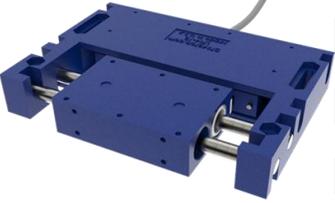
	RAS###038HA Series	Max Torque	>30mN.m
		Max Speed	100rpm
		Min. Step	<50 µrads
		Response	20-30 µsec
		Temperature	-20 to +80C
		Driver volts	12VDC
		Current	100-350mA
		Weight	68g
		Size (mm)	66x52x20
	Encoder version	Speed (rpm)	0.01 to 100
		Min. Step	<50 µrads

	RAS###038SA Series	Max Torque	>30mN.m
		Max Speed	100rpm
		Min. Step	<10 arc sec
		Response	20-30 µsec
		Temperature	-20 to +80C
		Driver volts	12VDC
		Current	100-350mA
		Weight	77g
		Size (mm)	66x52x20
	Encoder version	Speed (rpm)	0.01 to 100
		Min. Step	<50 µrads

	LAS20C010LA Series	Force	>0.2N
		Max Speed	0.2m/s
		Min. Step	0.04 µm
		Response	10-15 µsec
		Stroke	10mm
		Temperature	-20 to +80C
		Driver volts	5VDC
		Current	100-300mA
		Weight	15g
	Size(mm)	16x15x6	

	LAS004010LA Series	Force	>4N
		Max Speed	0.2m/s
		Min. Step	0.1 µm
		Response	20-30 µsec
		Stroke	10mm
		Temperature	-20 to +80C
		Driver volts	12VDC
		Current	100-350mA
		Weight	22g
	Size(mm)	40x28x11	
	Encoder version	Speed (mm/s)	0.014 to 140
		Min. Step	2.6 µm

	LAS004015SA Series	Force	>4N
		Max Speed	0.2m/s
		Min. Step	0.1 µm
		Response	20-30 µsec
		Stroke	15mm
		Temperature	-20 to +80C
		Driver volts	12VDC
		Current	100-350mA
		Weight	45g
	Size(mm)	60x47x15	
	Encoder version	Speed (mm/s)	0.014 to 140
		Min. Step	2.6 µm

	LAS010030SA Series	Force	>10N
		Max Speed	0.2m/s
		Min. Step	0.1 µm
		Response	30-50µsec
		Stroke	30mm
		Temperature	-20 to +80C
		Driver volts	12VDC
		Max Current	1600mA
		Weight	190g
	Size(mm)	106x18x77	
	Encoder version	Speed range	0.01 to 100
		Min. Step	<50 µrads

	MBS010 Series	Force	>10N
		Max Speed	0.2m/s
		Min. Step	0.1 µm
		Response	20-30 µsec
		Stroke	to 100cm
		New Product In Development	