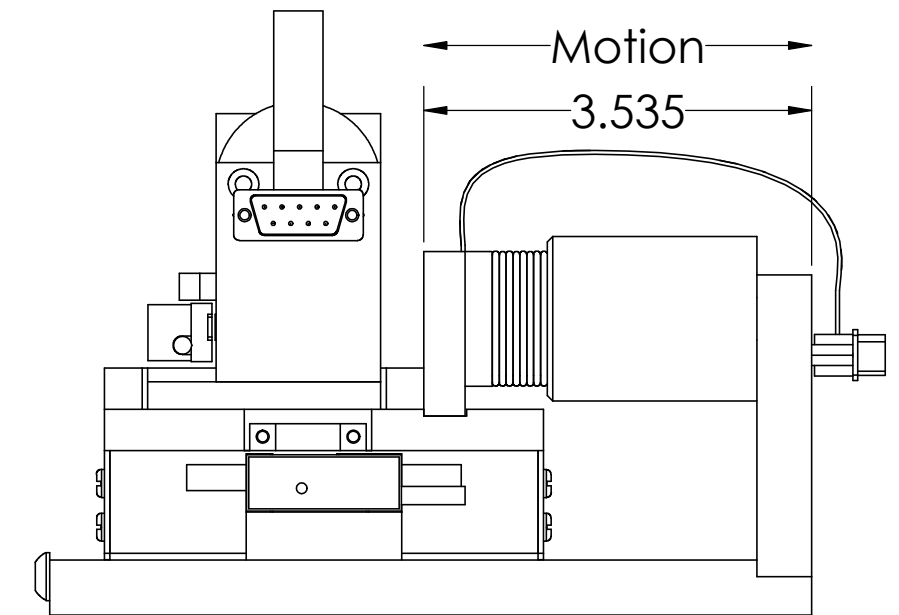
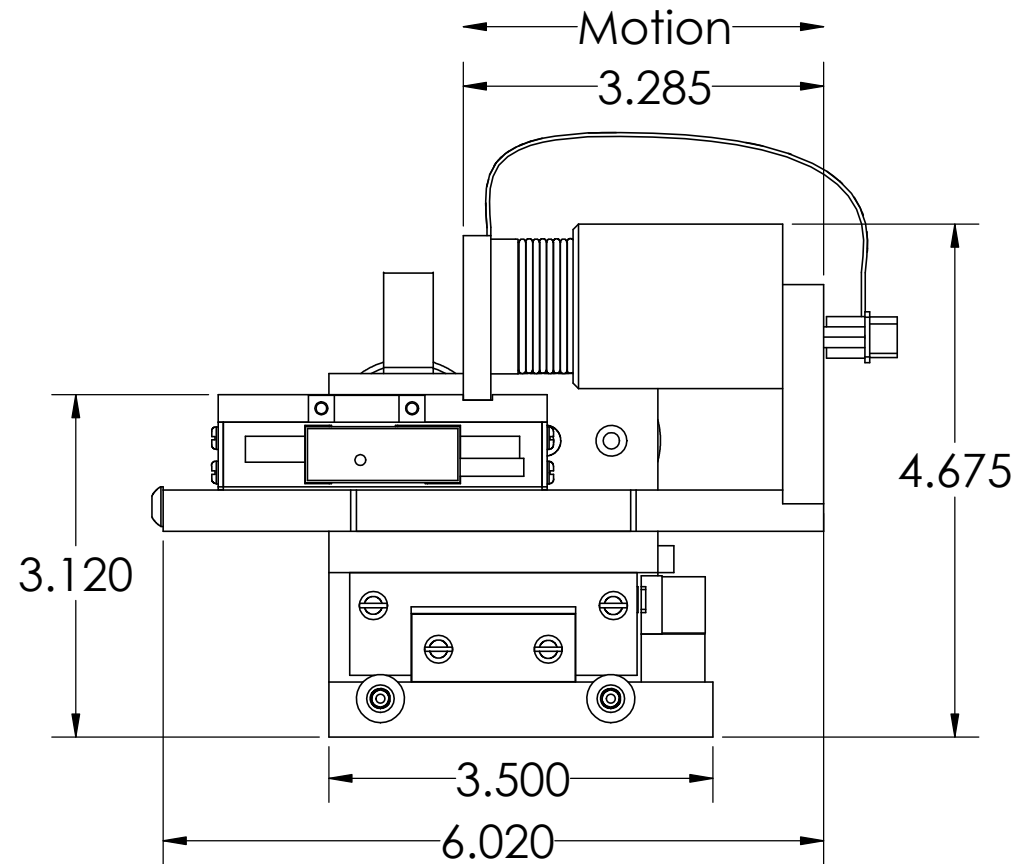
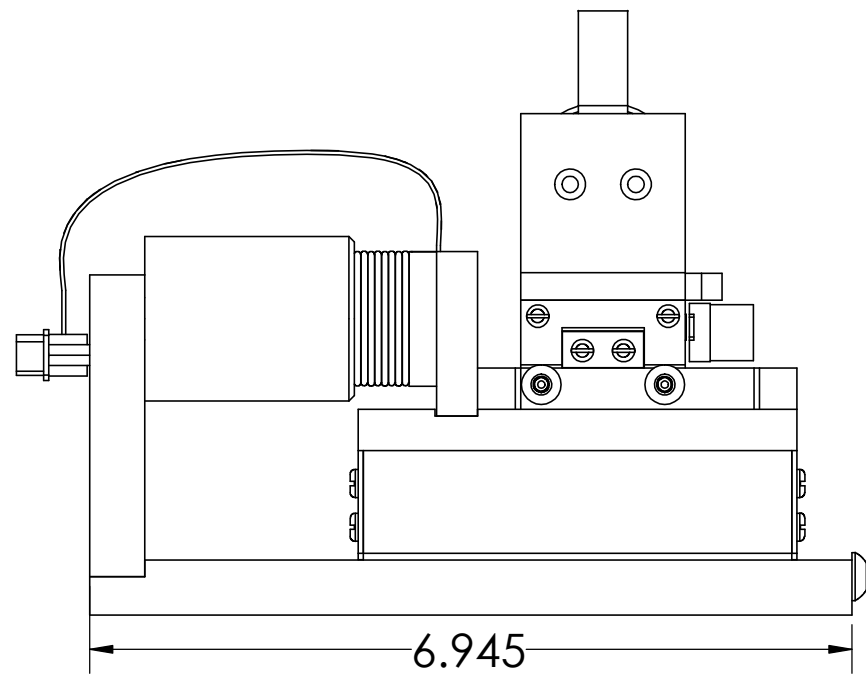
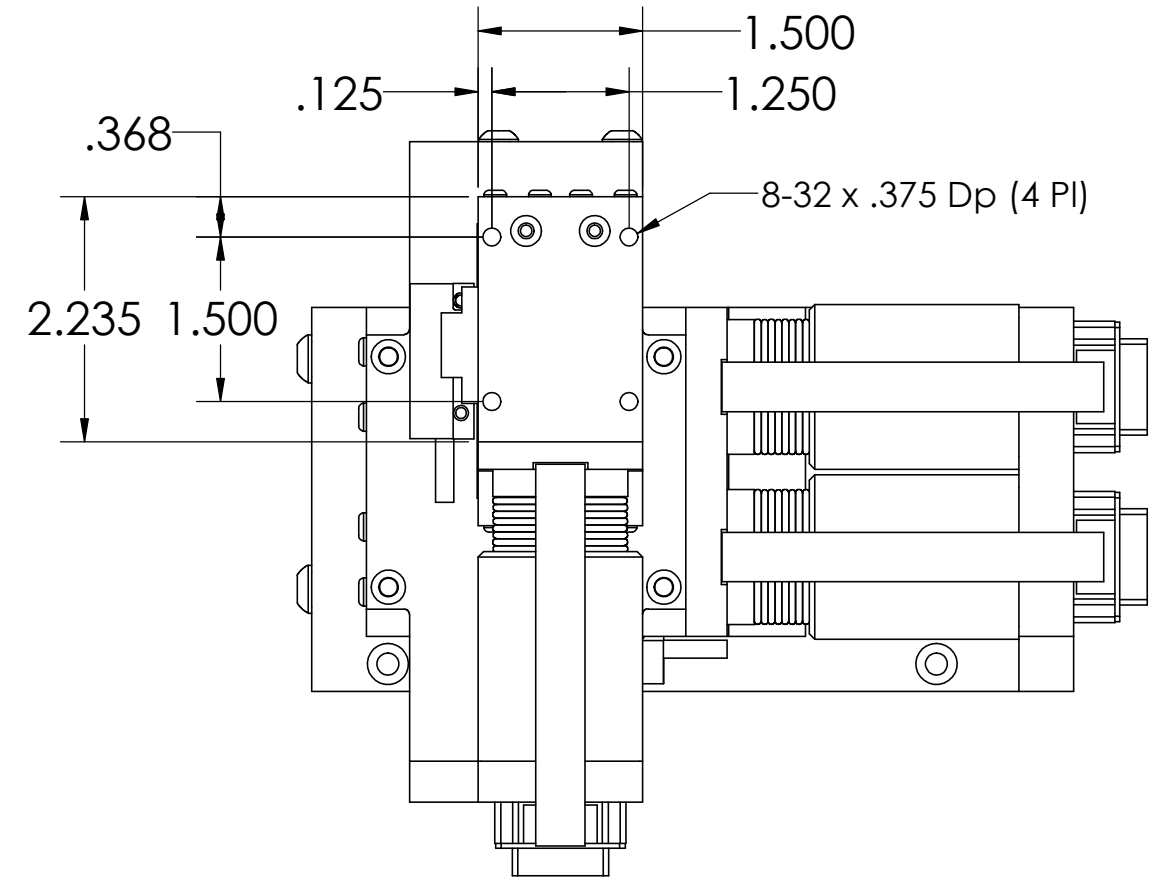
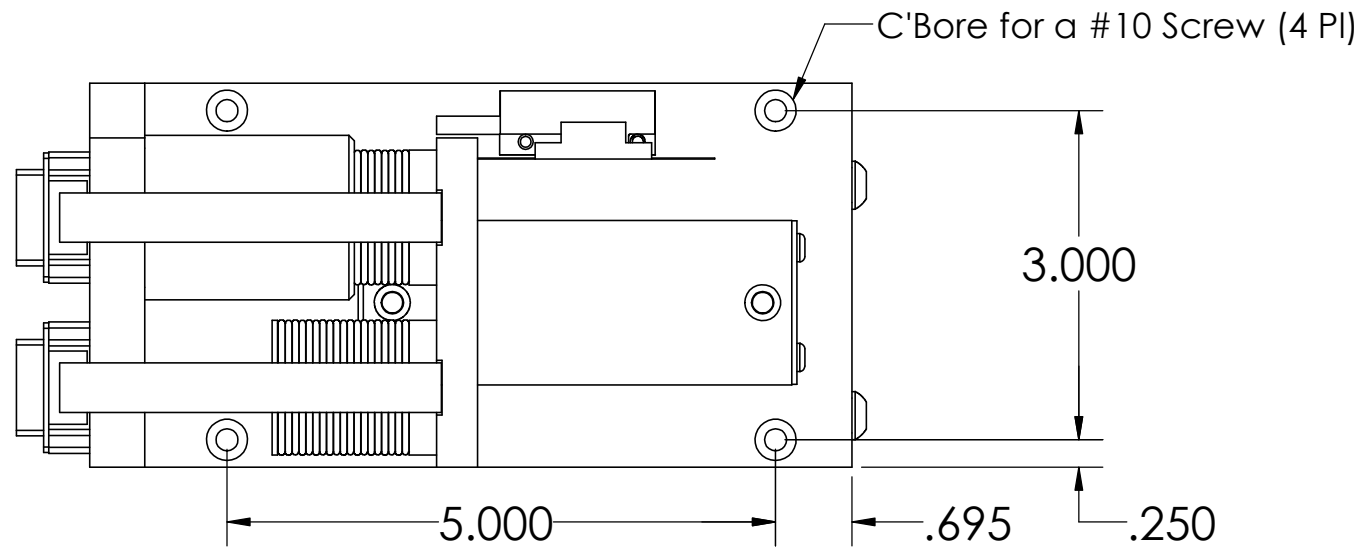


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MOTORS HAVE BEEN HIDDEN TO SHOW BASE MOUNTING HOLES

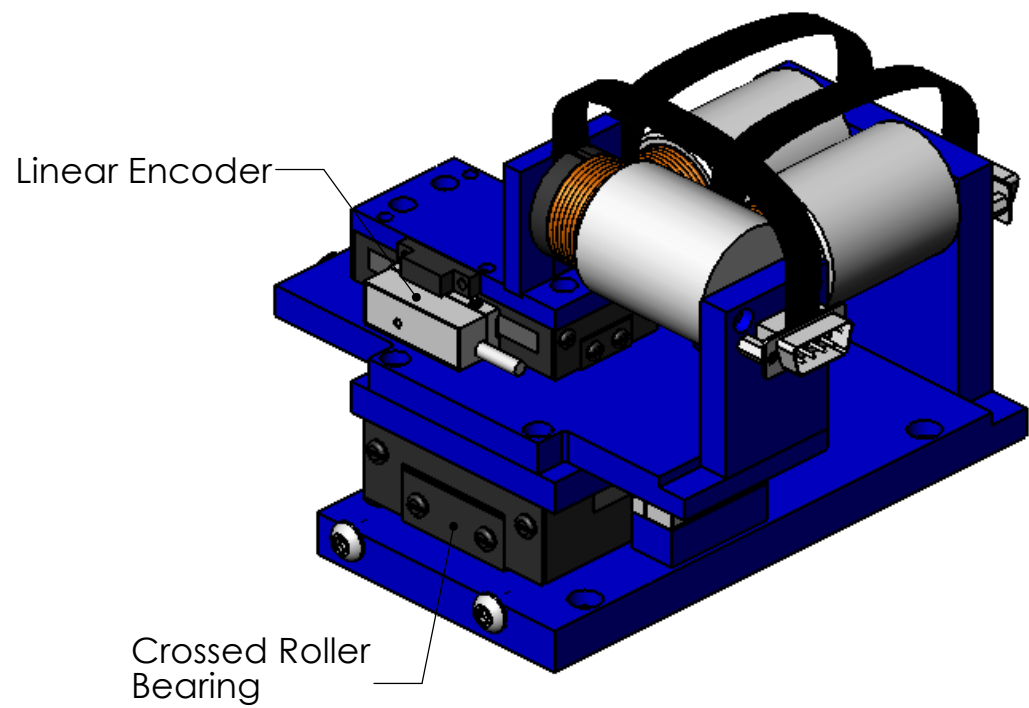
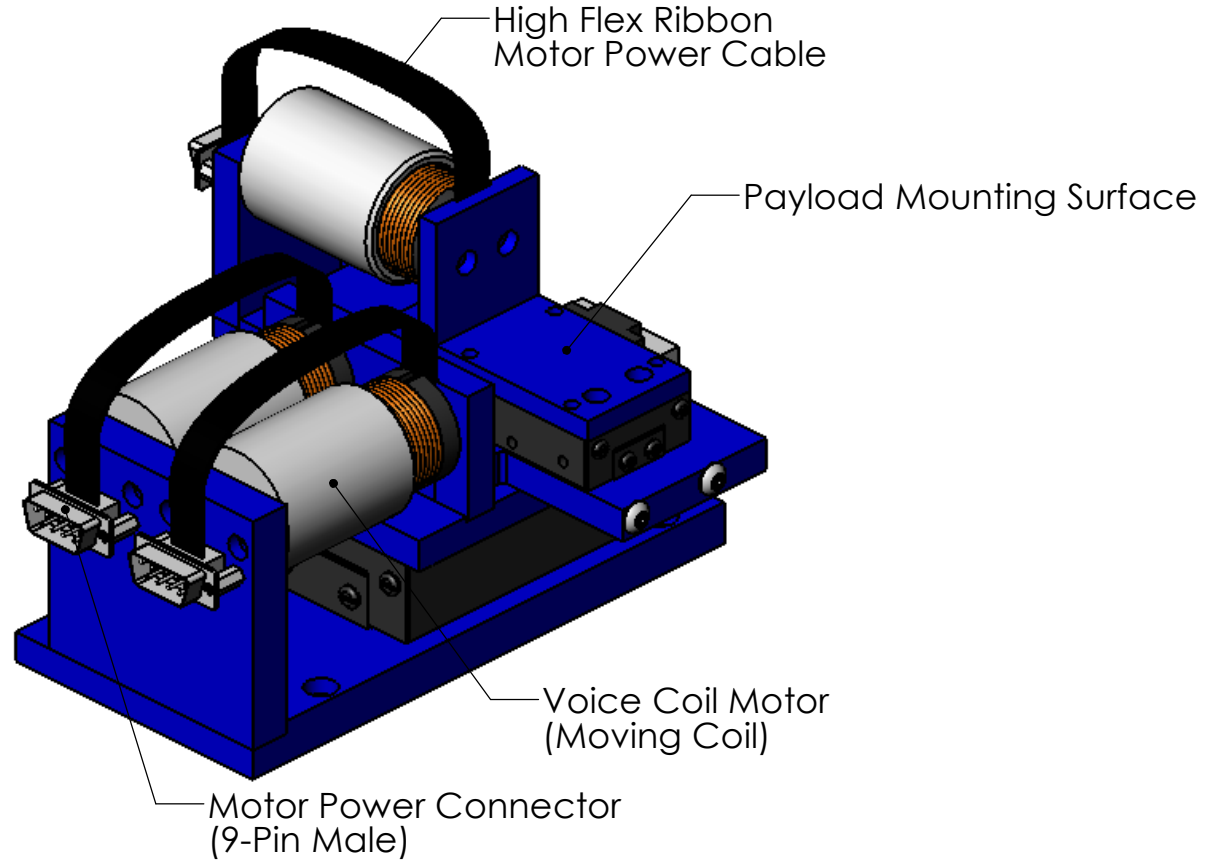


NOTE: Motors shown at mid-stroke

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UNLESS SPECIFIED OTHERWISE: All dimensions are in inches Standard Tolerances are as follows .XXX ±.005 ANGLES ±1° .XX ±.010 FILLETS AND .X ±.020 CORNERS .010 Remove All Burrs and Sharp Edges				MATERIAL		TITLE	
				FINISH		Voice Coil Positioning Stage VCS10-046/023-CR-001-CXY	
DRAWN	DATE	APPROVED	DATE	DWG #	REV	SHEET	
OOG	12-9-11	MPW	12-9-11	31-0305	---	1 of 2	

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VOICE COIL POSITIONING STAGE SPECIFICATIONS (Top Axis)

Motor P/N (2 Motors)	NCC10-15-023-1X	
Stroke	1.00 in	25.4 mm
Encoder Resolution	0.1 micron	
Encoder Type	Optical	
Bearing Type	Crossed Roller	
Moving Mass	0.47 lbs	213 g
Total Mass	1.92 lbs	870 g
Resistance @ 20C	7.5 ohms	
Inductance @ 20C	3.3 mH	
Electrical Time Constant	0.44 msec	
Motor Constant	0.85 LBS/SQRT(Watt)	3.78 N/SQRT(Watt)
Force Constant	2.3 LBS/Amp	10.2 N/Amp
Back EMF	0.26 V/ips	10.2 V/m/sec
Force @ 100% Duty	2.3 lbs	10.2 N
Power @ 100% Duty	7 watts	
Current @ 100% Duty	1.0 amps	
Force @ 10% Duty	6.9 lbs	30.7 N
Power @ 10% Duty	66 watts	
Current @ 10% Duty	3.0 amps	
Moving Part	Coil Assembly	

VOICE COIL POSITIONING STAGE SPECIFICATIONS (Bottom Axis)

Motor P/N (2 Motors)	NCC10-15-023-1X	
Stroke	1.00 in	25.4 mm
Encoder Resolution	0.1 micron	
Encoder Type	Optical	
Bearing Type	Crossed Roller	
Moving Mass	1.43 lbs	647 g
Total Mass	4.82 lbs	2188 g
Resistance @ 20C	15.0 ohms	
Inductance @ 20C	6.6 mH	
Electrical Time Constant	0.44 msec	
Motor Constant	1.70 LBS/SQRT(Watt)	7.5 N/SQRT(Watt)
Force Constant	4.6 LBS/Amp	20.4 N/Amp
Back EMF	0.52 V/ips	20.4 V/m/sec
Force @ 100% Duty	4.6 lbs	20.4 N
Power @ 100% Duty	14 watts	
Current @ 100% Duty	1.0 amps	
Force @ 10% Duty	13.8 lbs	61.4 N
Power @ 10% Duty	132 watts	
Current @ 10% Duty	3.0 amps	
Moving Part	Coil Assembly	

NOTE: Electrical specs & masses are per individual axis

TITLE	Voice Coil Positioning Stage VCS10-046/023-CR-001-CXY		
DWG #	31-0305	REV	---
SHEET			2 of 2