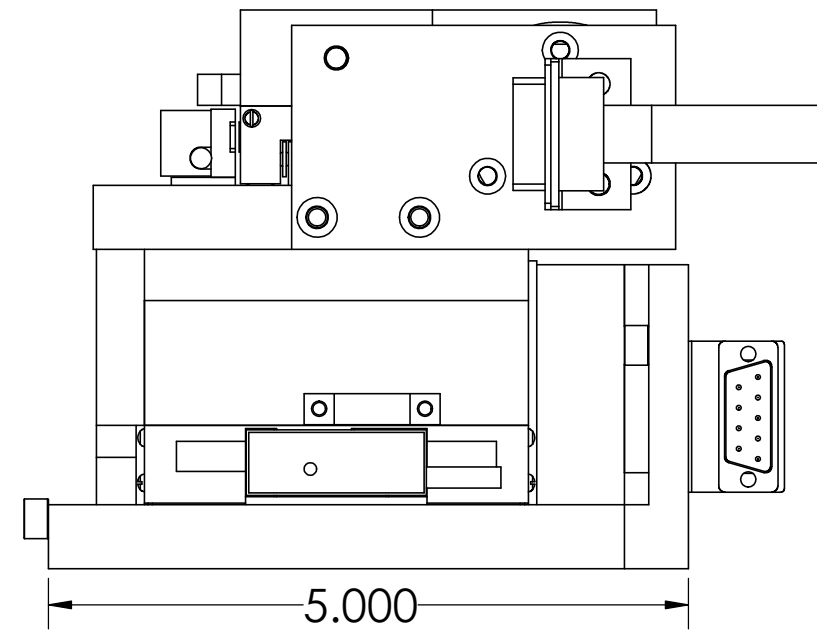
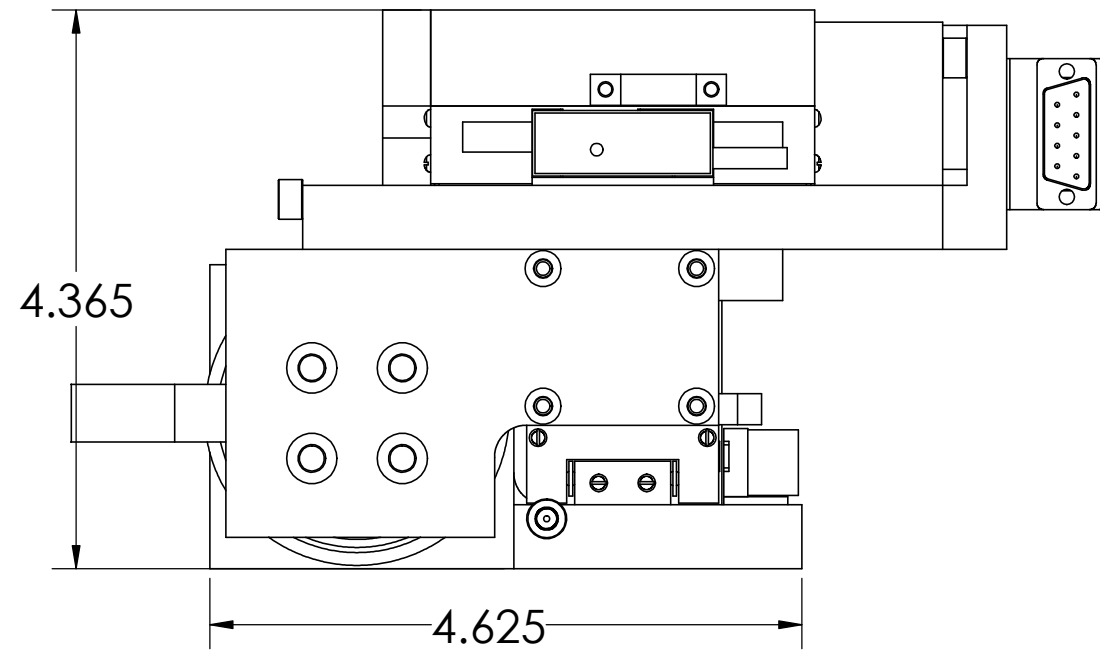
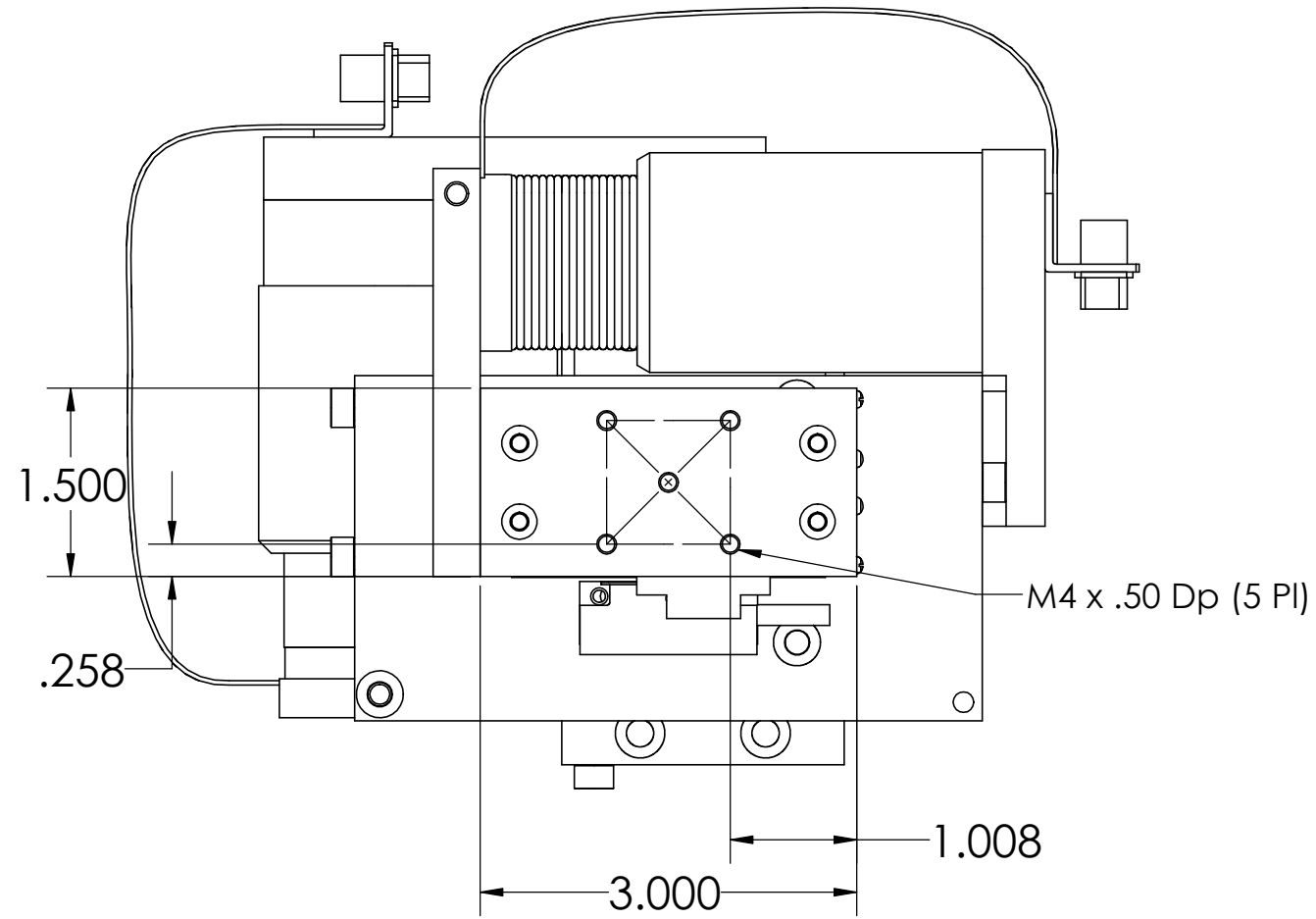


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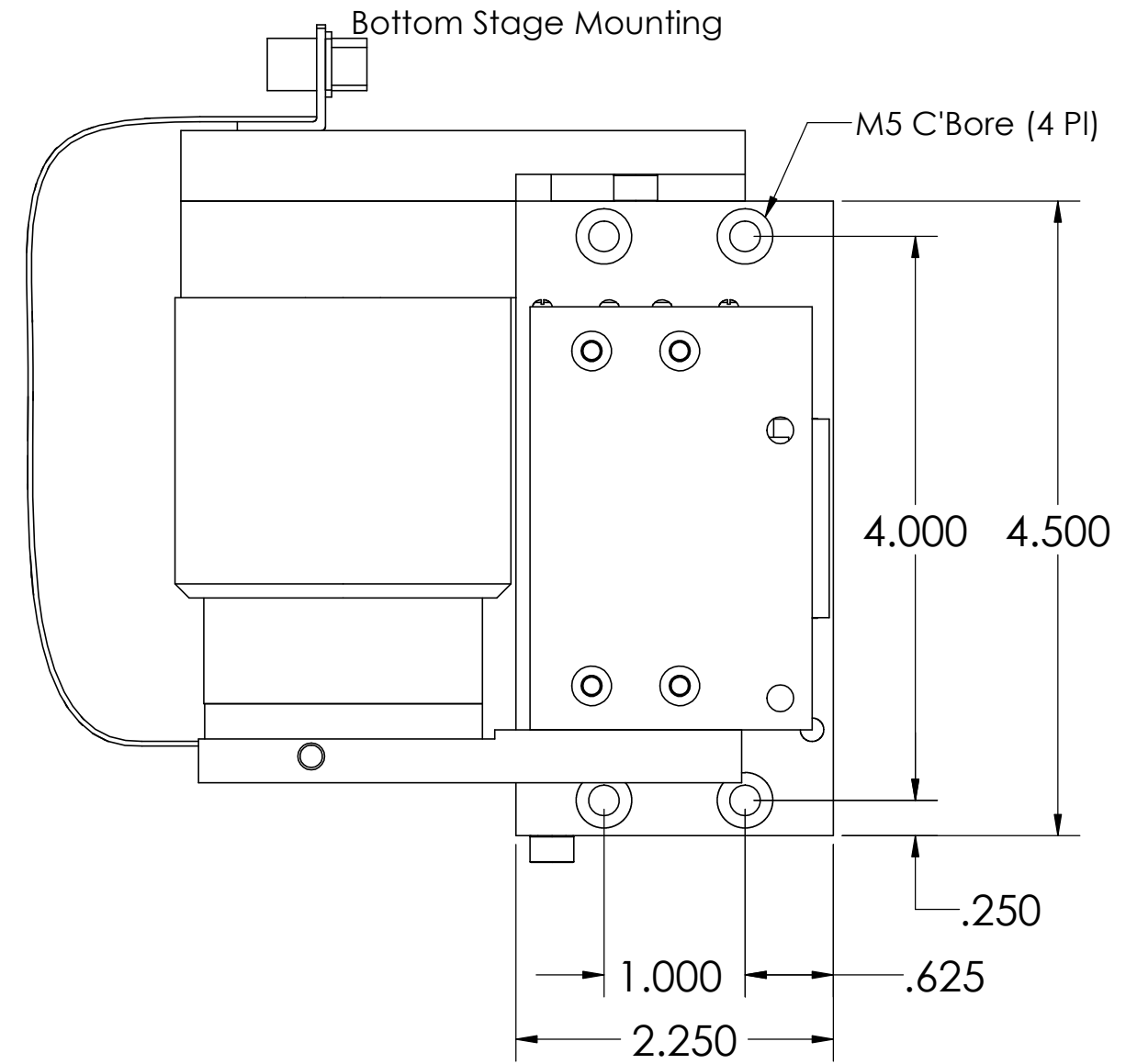
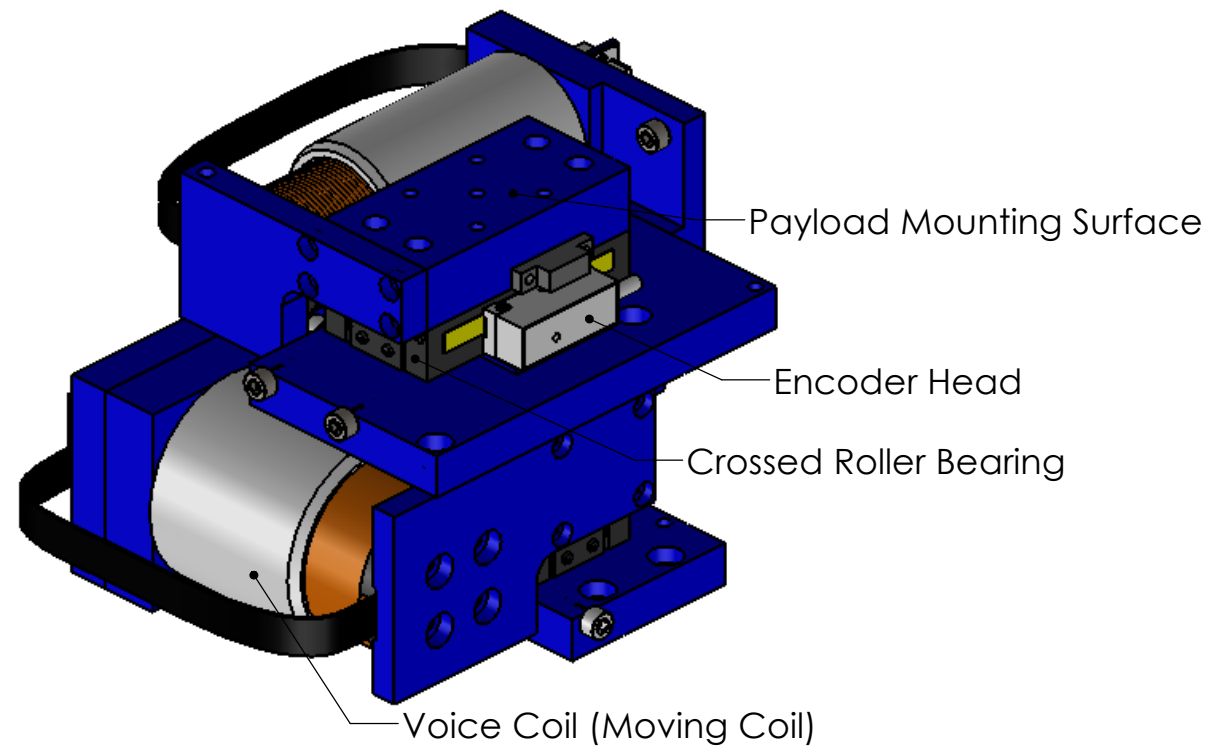
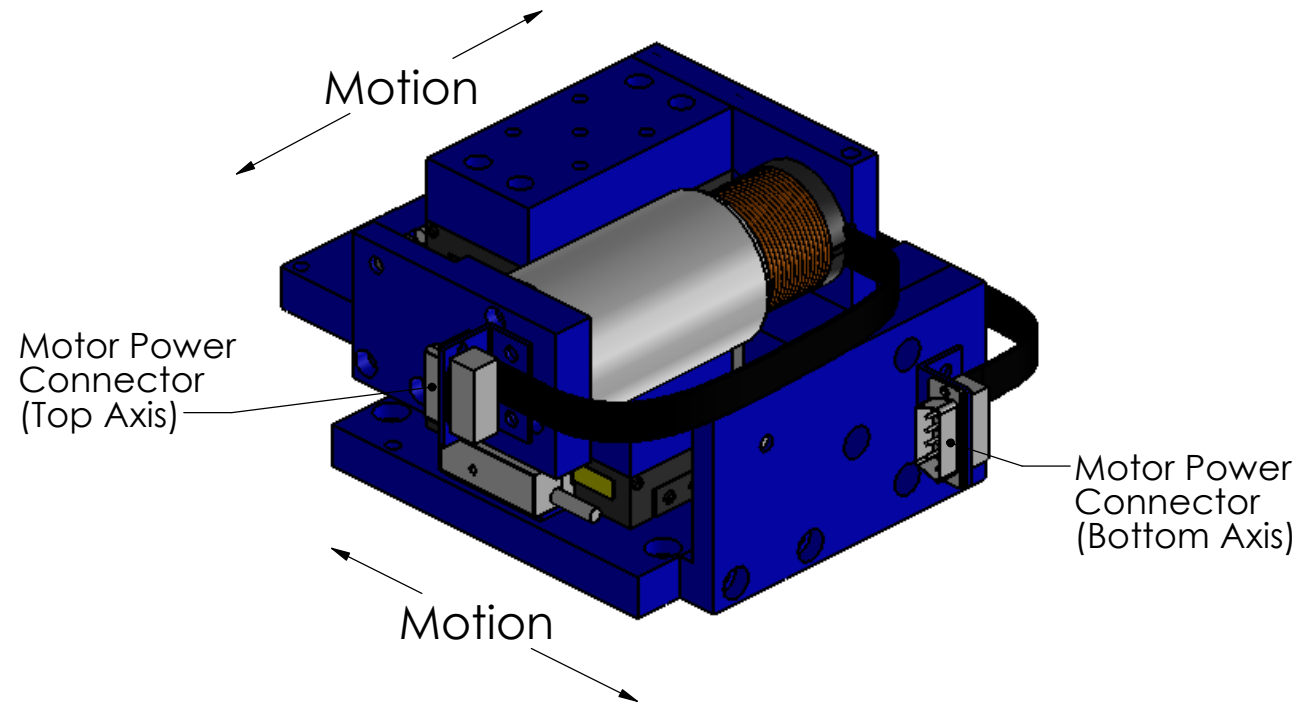
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 26470 Ruether Ave #102 Santa Clarita, CA 91350 USA
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VOICE COIL POSITIONING STAGE
Model #: VCS15-084-CR-001-XY

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		DATE	
FINISH		DRAWN	DATE	APPROVED	DATE
		OOG	7-22-11	MPW	7-22-11

TITLE	VOICE COIL POSITIONING STAGE	
DWG #	REV	SHEET
31-0281	A	1 of 3

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VOICE COIL POSITIONING STAGE SPECIFICATIONS (Bottom Axis)		
Motor P/N (2 Motors)	NCC15-24-050-1R	
Stroke	1.50 in	38.1 mm
Encoder Resolution	0.1 micron	
Encoder Type	Optical	
Bearing Type	Crossed Roller	
Moving Mass	1.33 lbs	604 g
Total Mass	3.91 lbs	1775 g
Resistance @ 20C	1.9 ohms / 7.8 ohms	
Inductance @ 20C	1.4 mH / 5.8 mH	
Electrical Time Constant	0.74 msec	
Motor Constant	1.48 LBS/SQRT(Watt)	6.59 N/SQRT(Watt)
Force Constant	2.04 LBS/Amp or 4.13 LBS/Amp	9.08 N/Amp or 18/38 n/Amp
Back EMF	0.23 V/ips or 0.46 V/ips	9.08 V/m/sec or 18.38 V/m/sec
Force @ 100% Duty	8.4 lbs	37.4 N
Power @ 100% Duty	32 Watts	
Current @ 100% Duty	4.1 Amps / 2.0 Amps	
Force @ 10% Duty	25.2 lbs	112 N
Power @ 10% Duty	291 Watts	
Current @ 10% Duty	12.3 Amps / 6 Amps	
Moving Part	Coil Assembly	

VOICE COIL POSITIONING STAGE SPECIFICATIONS (Top Axis)		
Motor P/N (2 Motors)	NCC20-18-020-1X	
Stroke	2.00 in	50.8 mm
Encoder Resolution	0.1 micron	
Encoder Type	Optical	
Bearing Type	Crossed Roller	
Moving Mass	0.75 lbs	341 g
Total Mass	3.0 lbs	1362 g
Resistance @ 20C	3.50 ohms	
Inductance @ 20C	3.70 mH	
Electrical Time Constant	1.05 msec	
Motor Constant	0.75 LBS/SQRT(Watt)	3.34 N/SQRT(Watt)
Force Constant	1.4 LBS/Amp	6.1 N/Amp
Back EMF	0.2 V/ips	6.1 V/m/sec
Force @ 100% Duty	2.0 lbs	8.9 N
Power @ 100% Duty	7 Watts	
Current @ 100% Duty	1.4 Amps	
Force @ 10% Duty	6.0 lbs	26.7 N
Power @ 10% Duty	64 Watts	
Current @ 10% Duty	4.3 Amps	
Moving Part	Coil Assembly	

NOTE:
Moving and Total Mass are per individual stage.