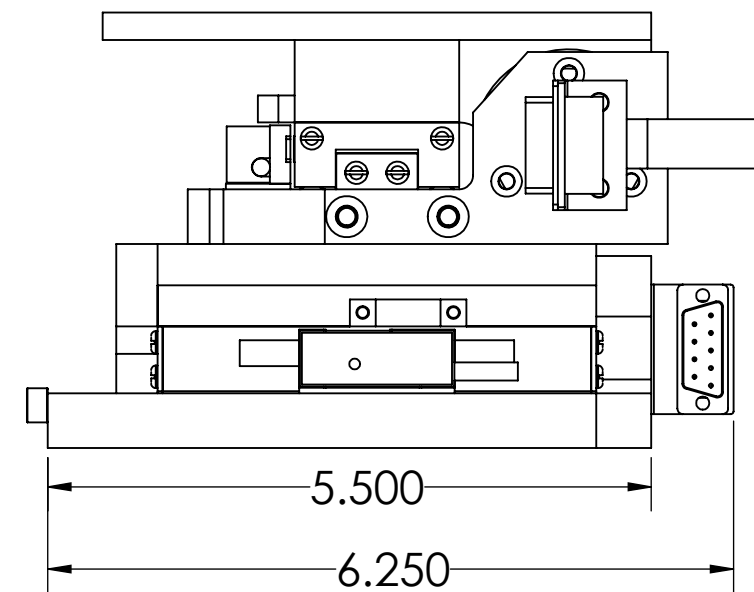
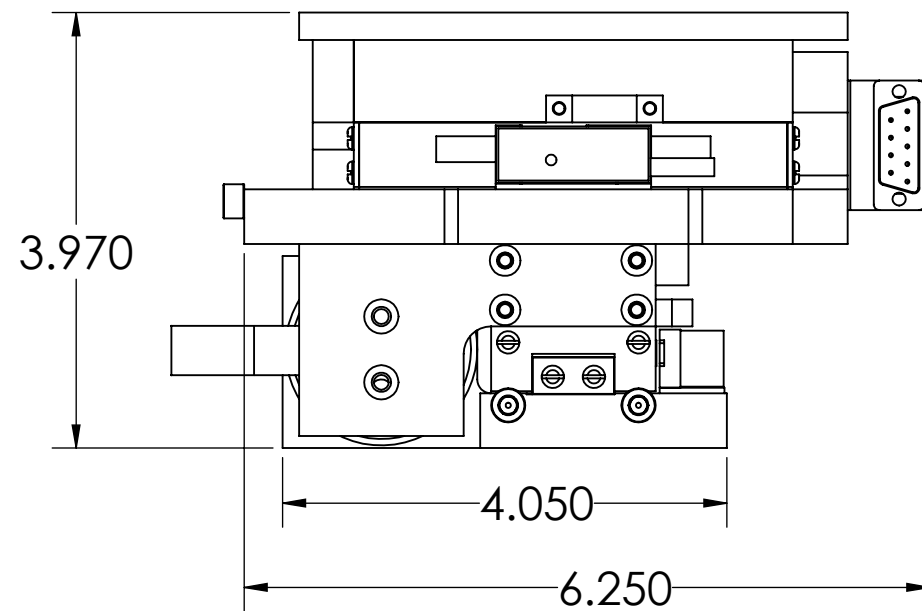
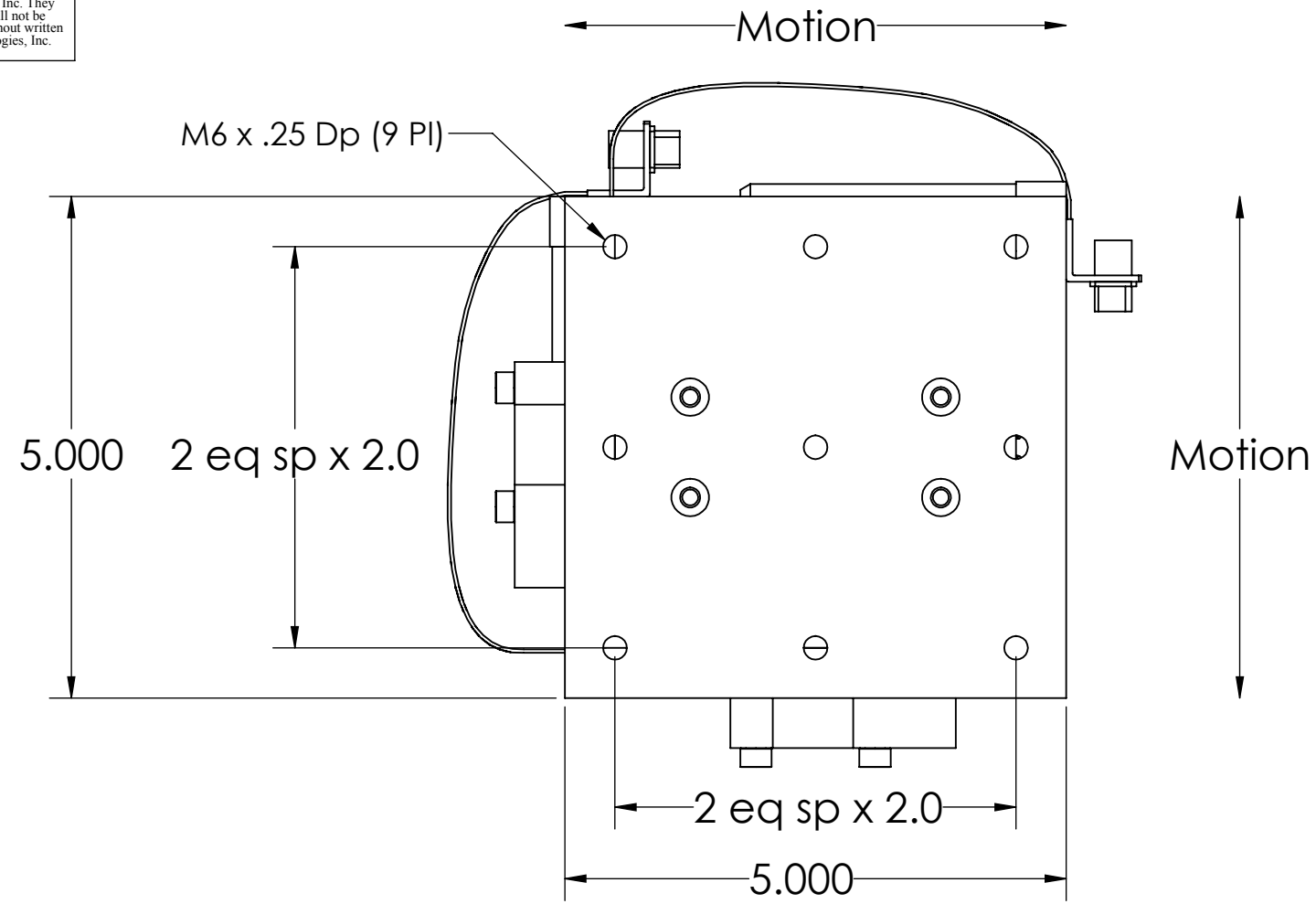


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REVISION TABLE						
REV	ECN#	DESCRIPTION	REV BY	APPROVED	DATE	
---	---	Original Drawing	OOG	MPW	7-30-12	

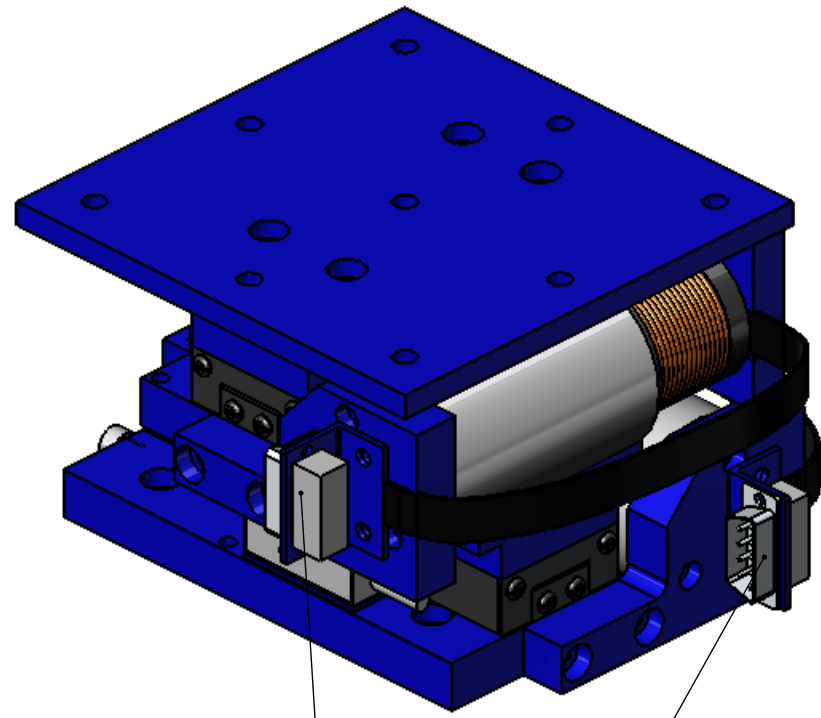


UNLESS SPECIFIED OTHERWISE:
 All dimensions are in inches
 Standard Tolerances are as follows
 .XXX = .005 ANGLES = ±1°
 .XX = ±.010 FILLETS AND
 X = ±.020 CORNERS .010
 Remove All Burrs and Sharp Edges

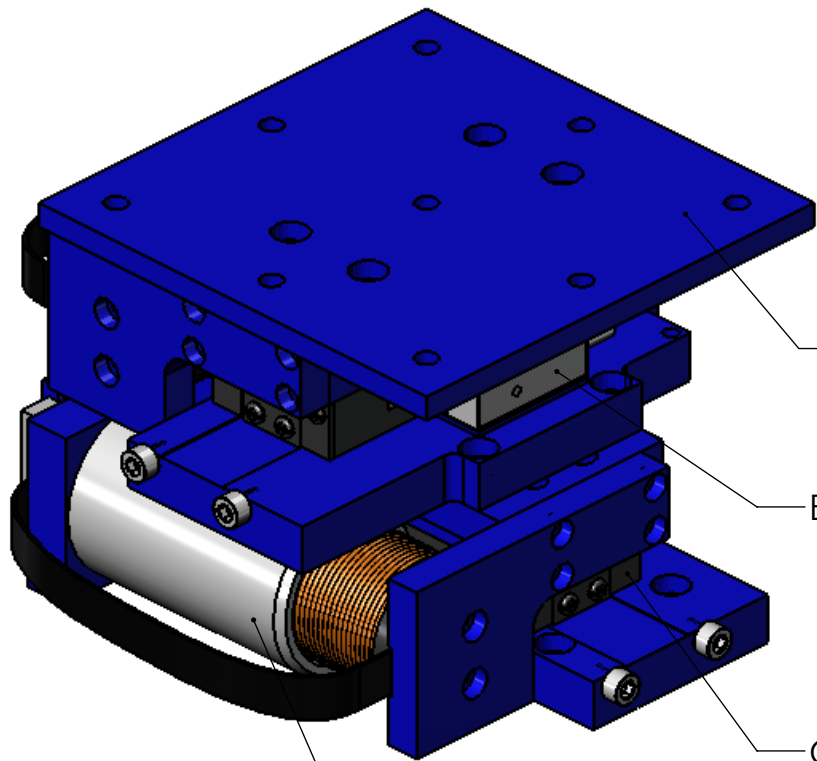
MATERIAL		FINISH	
DRAWN	DATE	APPROVED	DATE
OOG	7-30-12	MPW	7-30-12

TITLE			
H2W Technologies, Inc. 26470 Ruether Ave #102 Santa Clarita, CA 91350 USA Tel: (661) 251-2081 Fax: (661) 251-2067 www.h2wtech.com			
Voice Coil Positioning Stage Model #: VCS20-020-CR-001-XY-A			
DWG #	REV	SHEET	
31-0367	---	1 of 3	

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Motor Power Connector



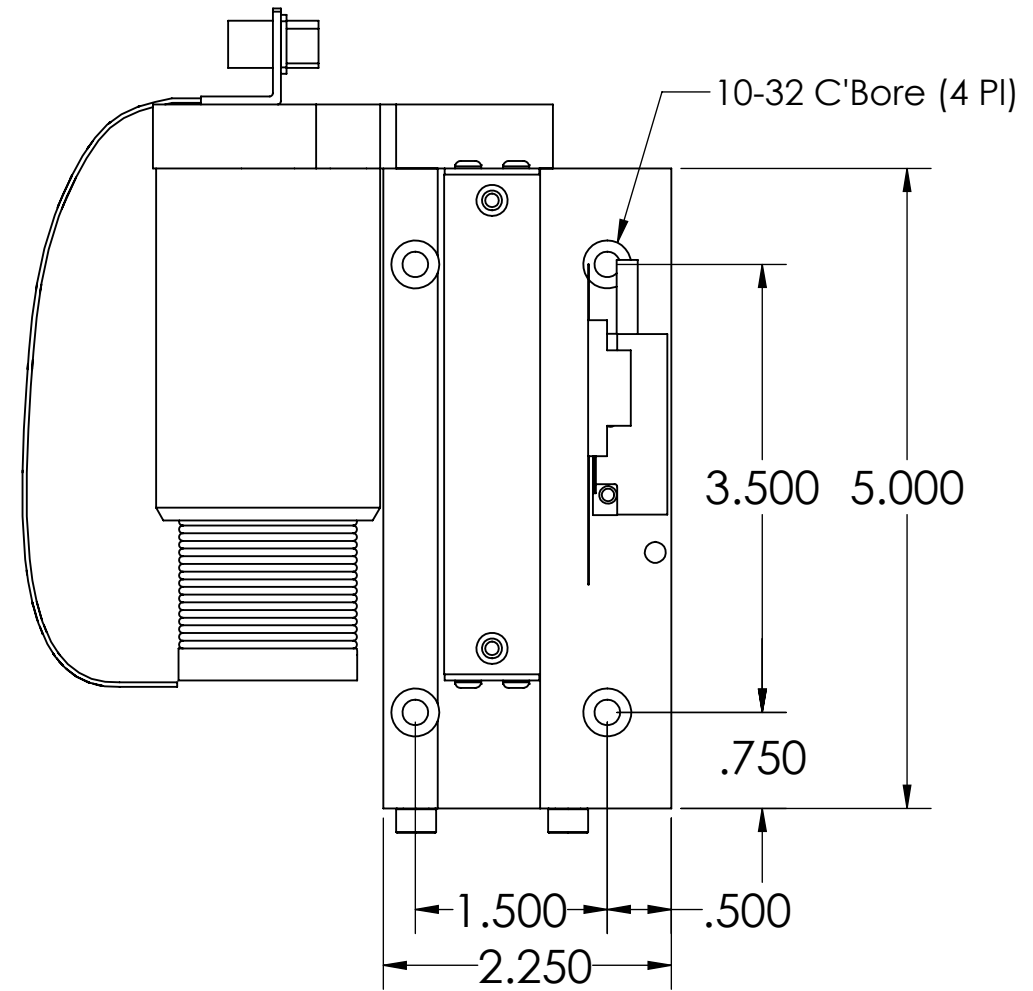
Payload Mounting Plate

Encoder Head

Crossed Roller Bearing

Voice Coil (Moving Coil)

Stage Mounting



PARTS HAVE BEEN HIDDEN TO SHOW MOUNTING HOLES

TITLE			
Voice Coil Positioning Stage			
Model #: VCS20-020-CR-001-XY-A			
DWG #	REV	SHEET	2 of 3
31-0367	---		

VOICE COIL POSITIONING STAGE SPECIFICATIONS (Bottom 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	1.20 lbs	545 g
Total Mass	3.27 lbs	1500 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	

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	1.11 lbs	503 g
Total Mass	3.21 lbs	1460 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	

NOTES:

- Electrical specs & masses are per individual axis
- Total stage weight = 11.5lb (1.4Kg)
- Top Mounting Plate weight is 0.1lbs (45 grams)