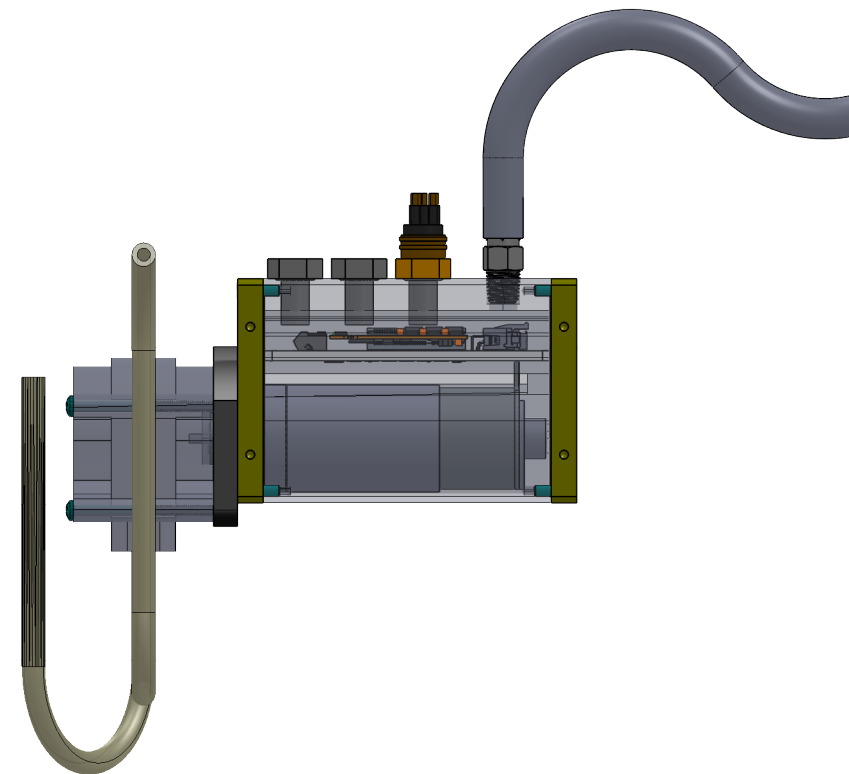
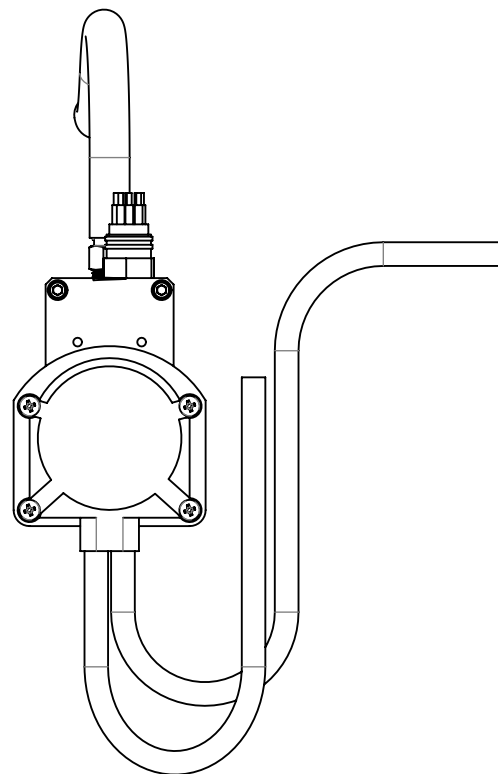
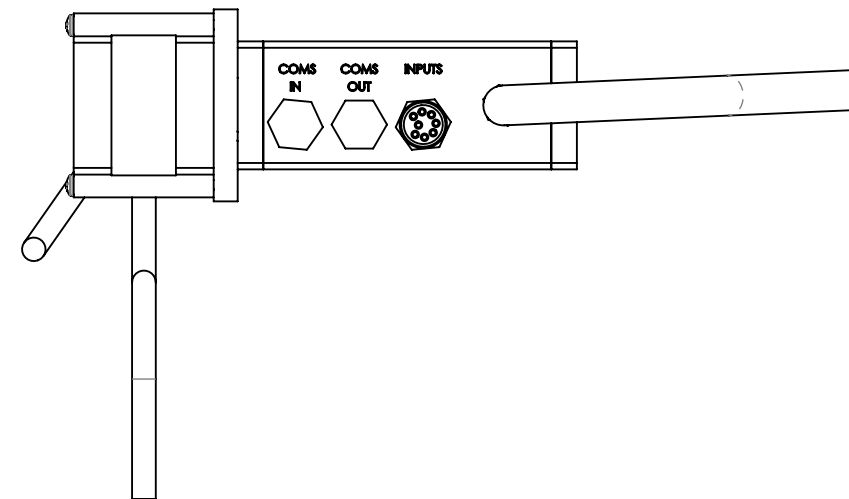
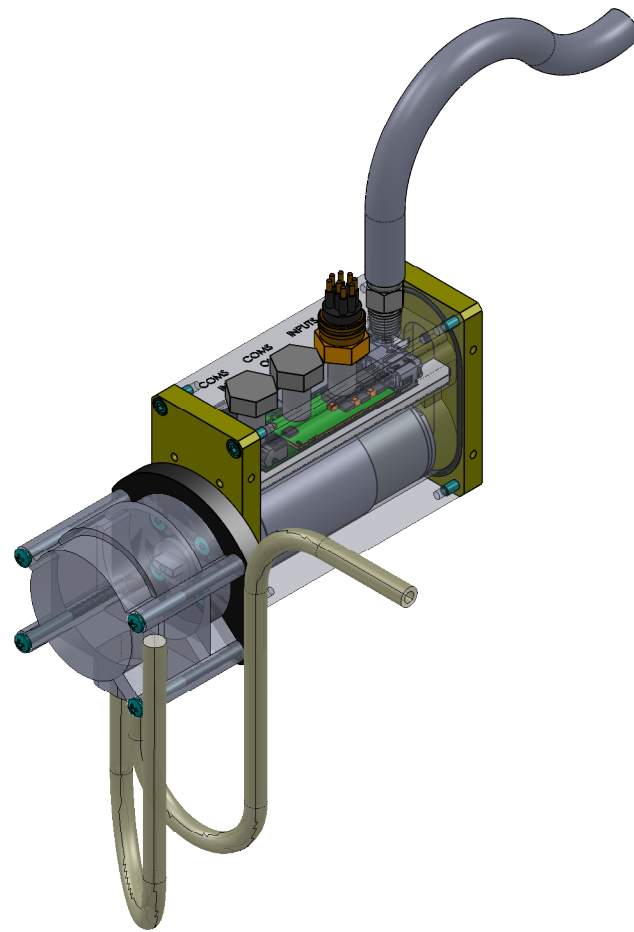


THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

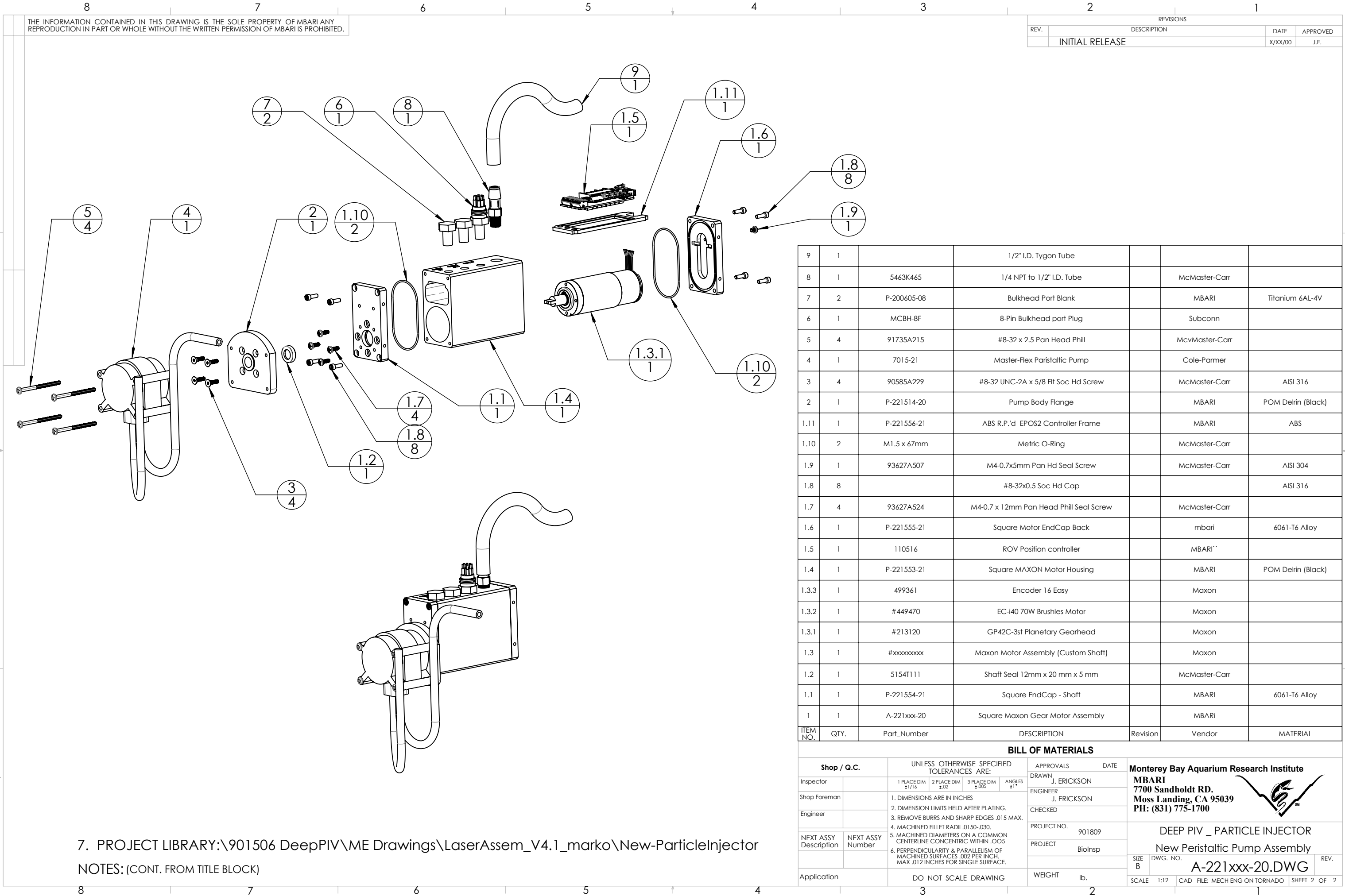
REVISIONS			
INITIAL	RELEASE	X/XX/01	J.E.



7. PROJECT LIBRARY:\901506 DeepPIV\ME Drawings\LaserAssem_V4.1_marko\New-ParticleInjector
NOTES: (CONT. FROM TITLE BLOCK)

BILL OF MATERIALS

BILL OF MATERIALS										
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN J. ERICKSON		Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 		
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADIUS .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH MAX. .012 INCHES FOR SINGLE SURFACE.				ENGINEER J. ERICKSON				
Engineer						CHECKED				
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.		901809		
						PROJECT		Biolnsp		
Application		DO NOT SCALE DRAWING				WEIGHT		SIZE B	DWG. NO.	REV.
								SCALE	1:4	CAD FILE: MECH ENG ON TORNADO
DEEP PIV _ PARTICLE INJECTOR New Peristaltic Pump Assembly A-221xxx-20.DWG										



7. PROJECT LIBRARY:\901506 DeepPIV\ME Drawings\LaserAssem_V4.1_marko\New-ParticleInjector

NOTES: (CONT. FROM TITLE BLOCK)

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE	X/XX/00	J.E.

9	1		1/2" I.D. Tygon Tube			
8	1	5463K465	1/4 NPT to 1/2" I.D. Tube	McMaster-Carr		
7	2	P-200605-08	Bulkhead Port Blank	MBARI	Titanium 6AL-4V	
6	1	MCBH-8F	8-Pin Bulkhead port Plug	Subconn		
5	4	91735A215	#8-32 x 2.5 Pan Head Phill	McMaster-Carr		
4	1	7015-21	Master-Flex Peristaltic Pump	Cole-Parmer		
3	4	90585A229	#8-32 UNC-2A x 5/8 Flt Soc Hd Screw	McMaster-Carr	AISI 316	
2	1	P-221514-20	Pump Body Flange	MBARI	POM Delrin (Black)	
1.11	1	P-221556-21	ABS R.P.'d EPOS2 Controller Frame	MBARI	ABS	
1.10	2	M1.5 x 67mm	Metric O-Ring	McMaster-Carr		
1.9	1	93627A507	M4-0.7x5mm Pan Hd Seal Screw	McMaster-Carr	AISI 304	
1.8	8		#8-32x0.5 Soc Hd Cap		AISI 316	
1.7	4	93627A524	M4-0.7 x 12mm Pan Head Phill Seal Screw	McMaster-Carr		
1.6	1	P-221555-21	Square Motor EndCap Back	mbari	6061-T6 Alloy	
1.5	1	110516	ROV Position controller	MBARI		
1.4	1	P-221553-21	Square MAXON Motor Housing	MBARI	POM Delrin (Black)	
1.3.3	1	499361	Encoder 16 Easy	Maxon		
1.3.2	1	#449470	EC-i40 70W Brushless Motor	Maxon		
1.3.1	1	#213120	GP42C-3st Planetary Gearhead	Maxon		
1.3	1	#xxxxxxxx	Maxon Motor Assembly (Custom Shaft)	Maxon		
1.2	1	5154T111	Shaft Seal 12mm x 20 mm x 5 mm	McMaster-Carr		
1.1	1	P-221554-21	Square EndCap - Shaft	MBARI	6061-T6 Alloy	
1	1	A-221xxx-20	Square Maxon Gear Motor Assembly	MBARI		
ITEM NO.	QTY.	Part_Number	DESCRIPTION	Revision	Vendor	MATERIAL

BILL OF MATERIALS

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 DEEP PIV _ PARTICLE INJECTOR New Peristaltic Pump Assembly A-221xxx-20.DWG			
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	J. ERICKSON					
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				ENGINEER	J. ERICKSON					
Engineer						CHECKED						
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.	901809		SIZE B	DWG. NO.	REV.	
						PROJECT	Biolnsp					
						WEIGHT	lb.					
Application		DO NOT SCALE DRAWING							SCALE 1:12	CAD FILE: MECH ENG ON TORNADO	SHEET 2 OF 2	