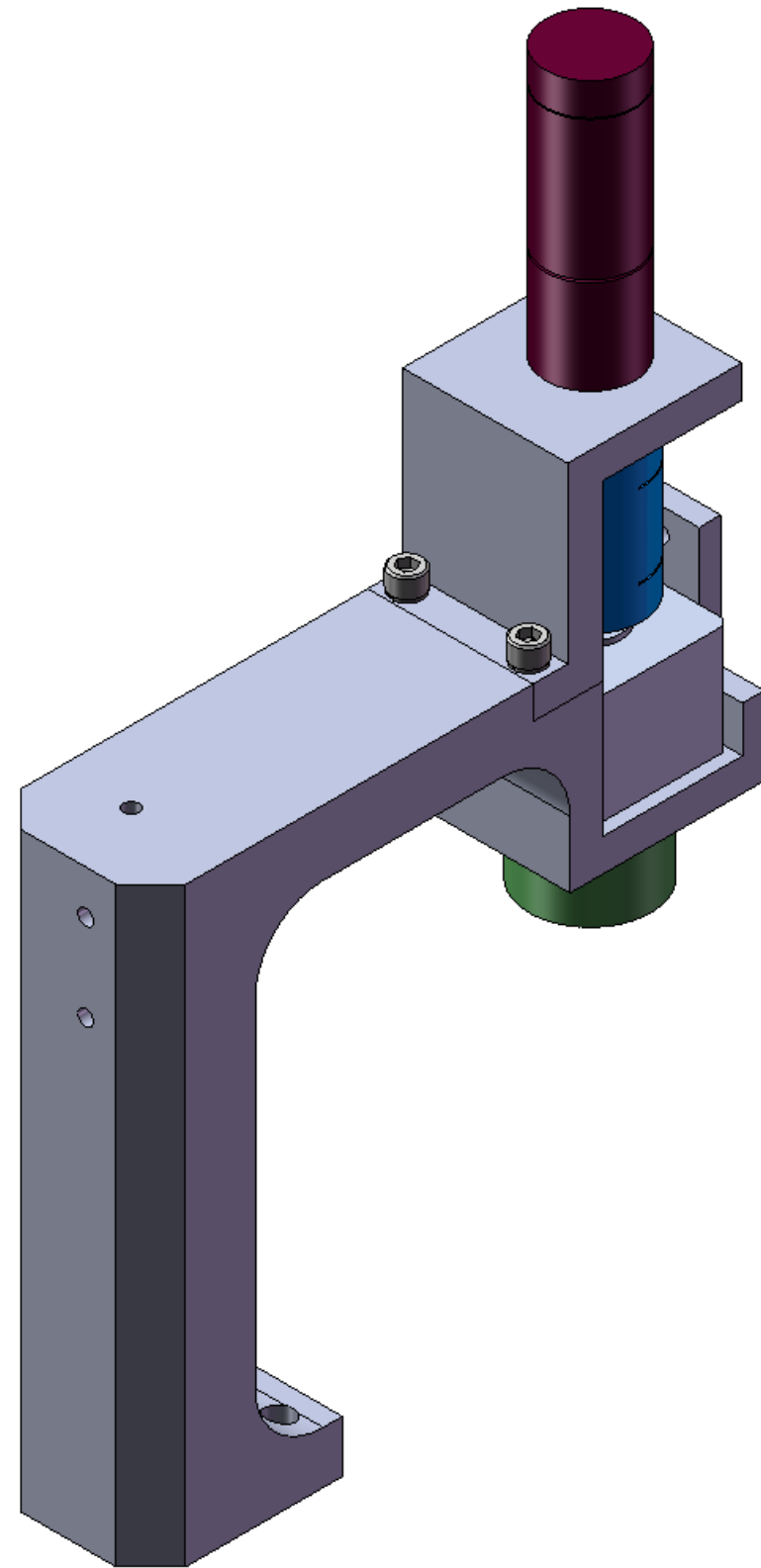
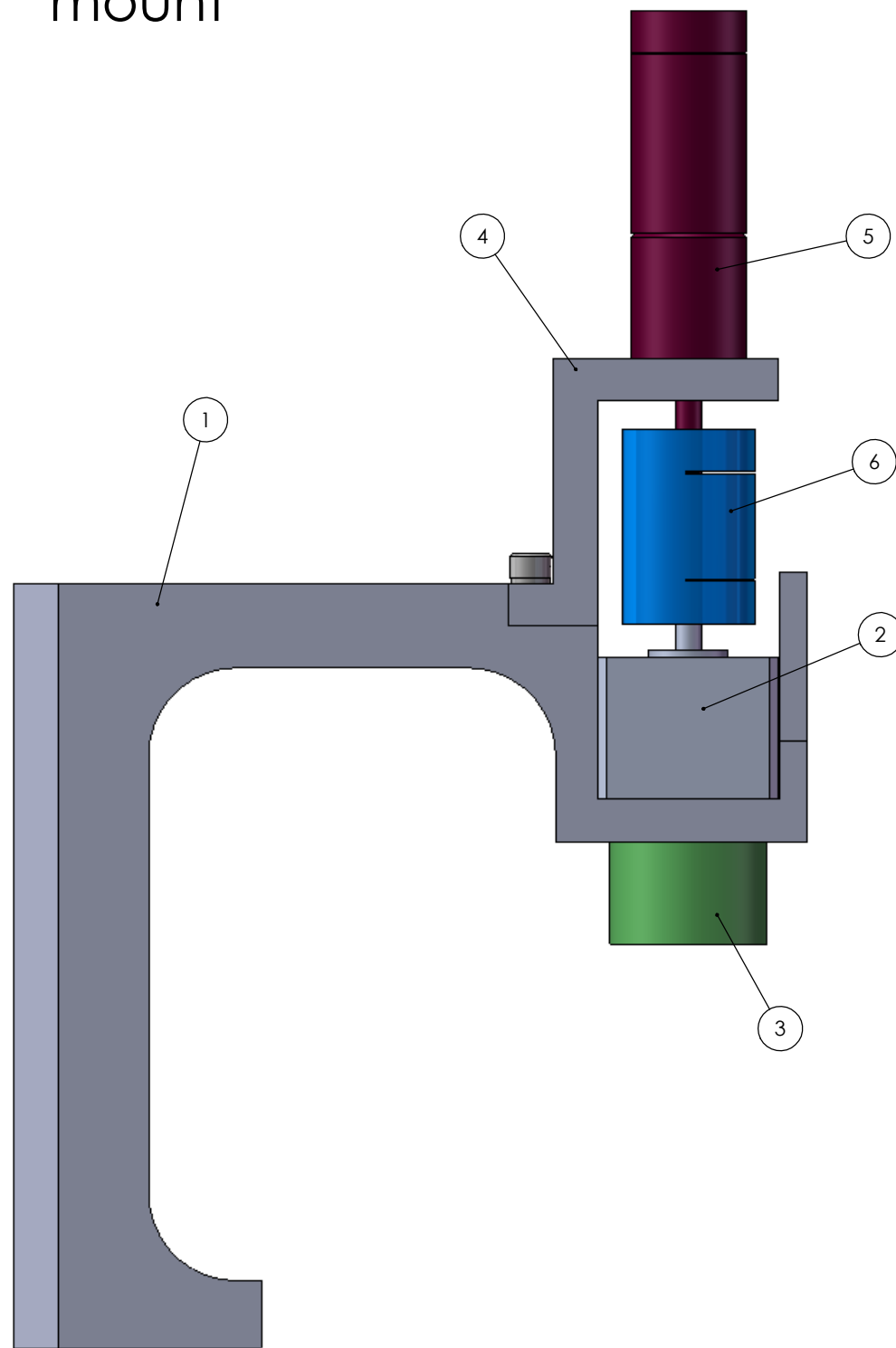


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New Manipulator mount



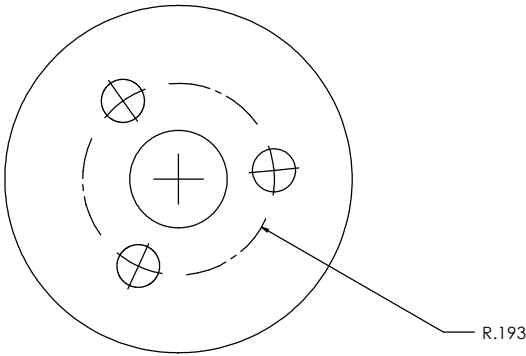
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	1002451-001new		6061 Aluminum	1
2	1002451-024	CSF-5-100-1U-F		1
3	1002451-023	Harmonic Drive Spacer	6061 Aluminum	1
4	1002451-028		6061 Aluminum	1
5	maxon GP13A4.1to1 - REmax13			1
6	helical W/C 15-3- 3mm	Motor Shaft Coupling	S.S. 17-4 PH	1

BILL OF MATERIALS				last updated on: Monday, March 30, 2009 3:17:16 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS	DATE
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	ENGINEER Jason Feldman 831-775-1837	
Shop Foreman		4 PLACE DIM ±.0005	ANGLES ±1°	CHECKED	
Engineer		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .015 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .003 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED			
NEXT ASSY Description	NEXT ASSY Number	PROJECT NUMBER 701312.00		PROJECT ESP 2G	
		SIZE C		DWG. NO. 1002451	REV. D
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209) SHEET 20 OF 23			

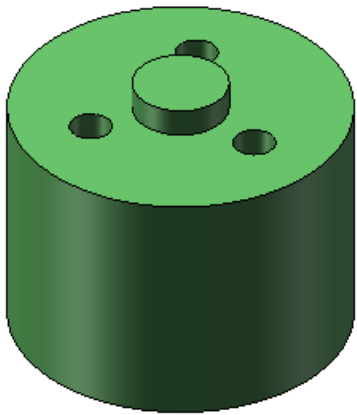


7700 Sandholdt Road
Moss Landing, CA
95039

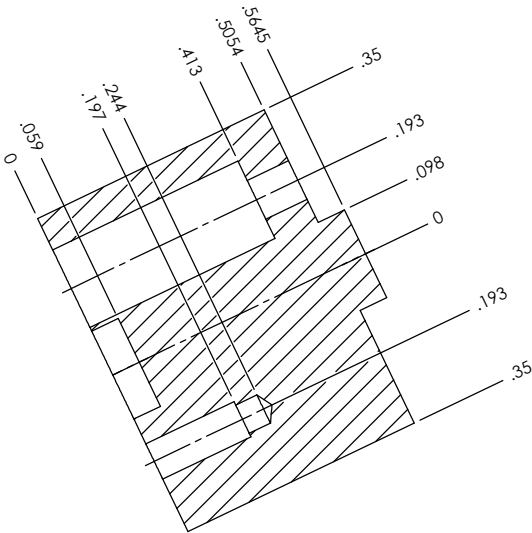
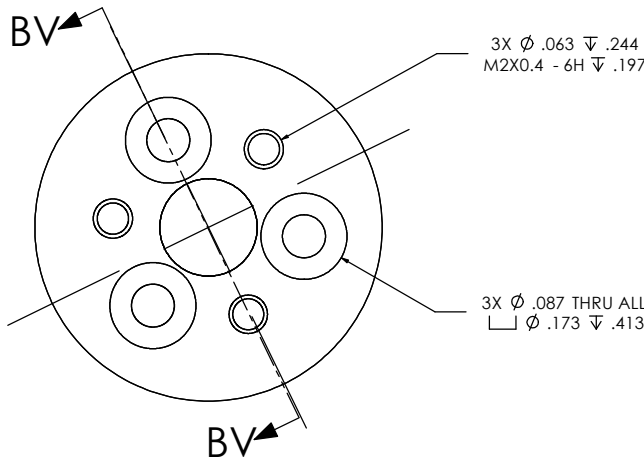
Top view



1002451-023
HD Spacer

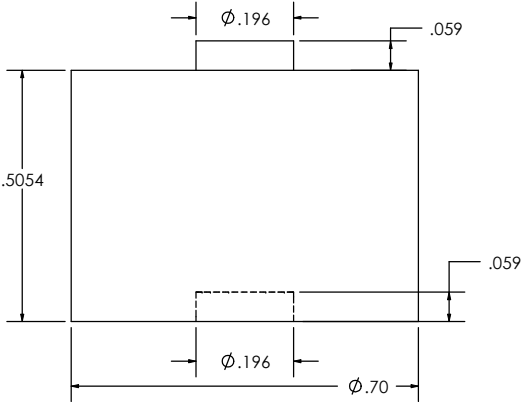


Bottom view



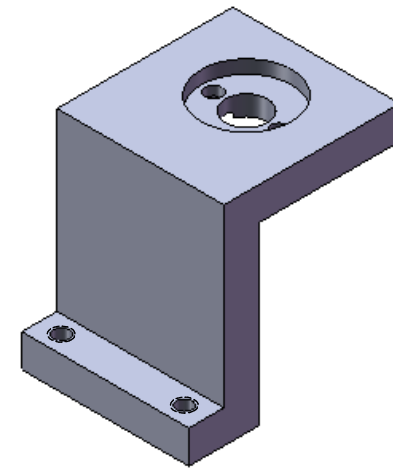
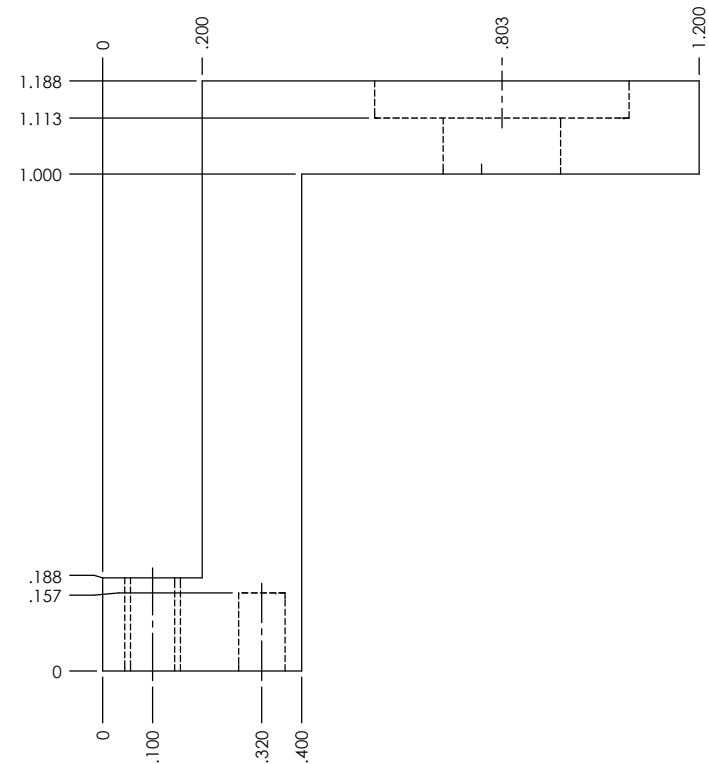
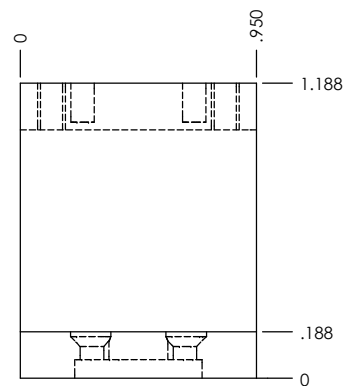
SECTION BV-BV
SCALE 4 : 1

Side view



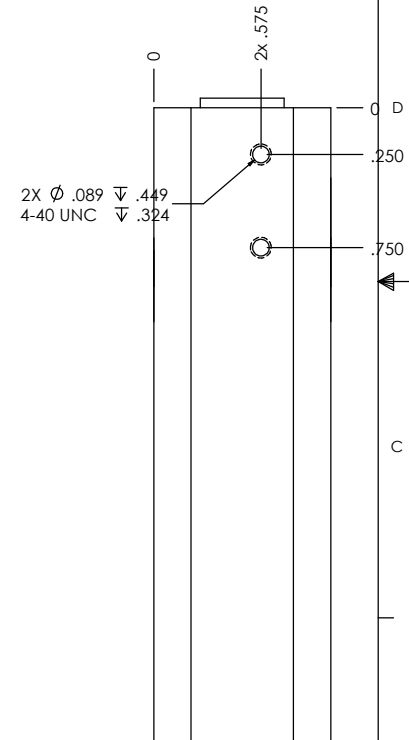
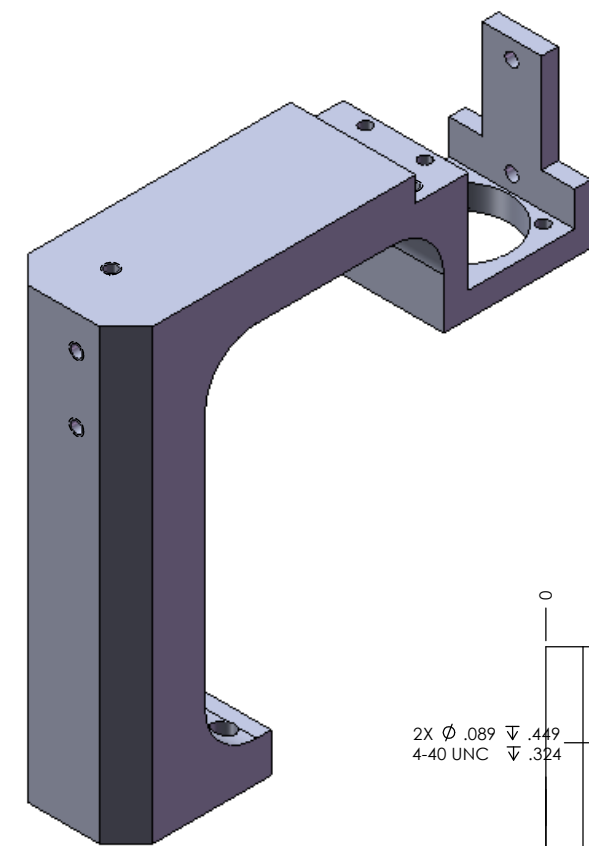
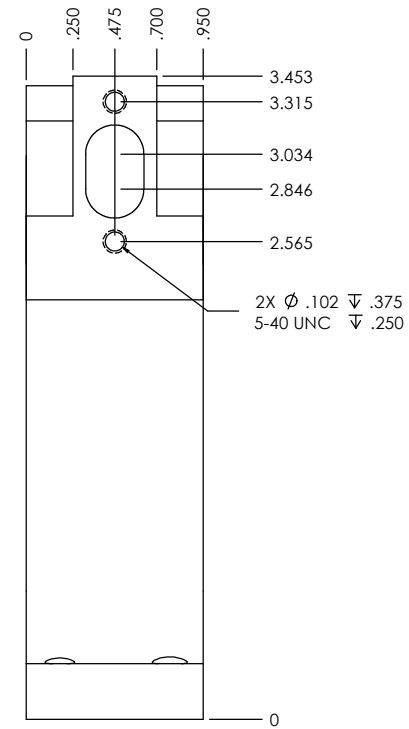
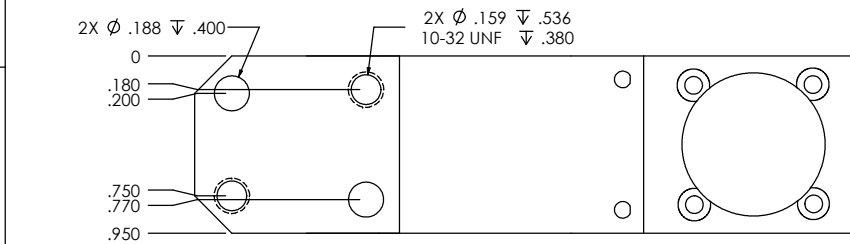
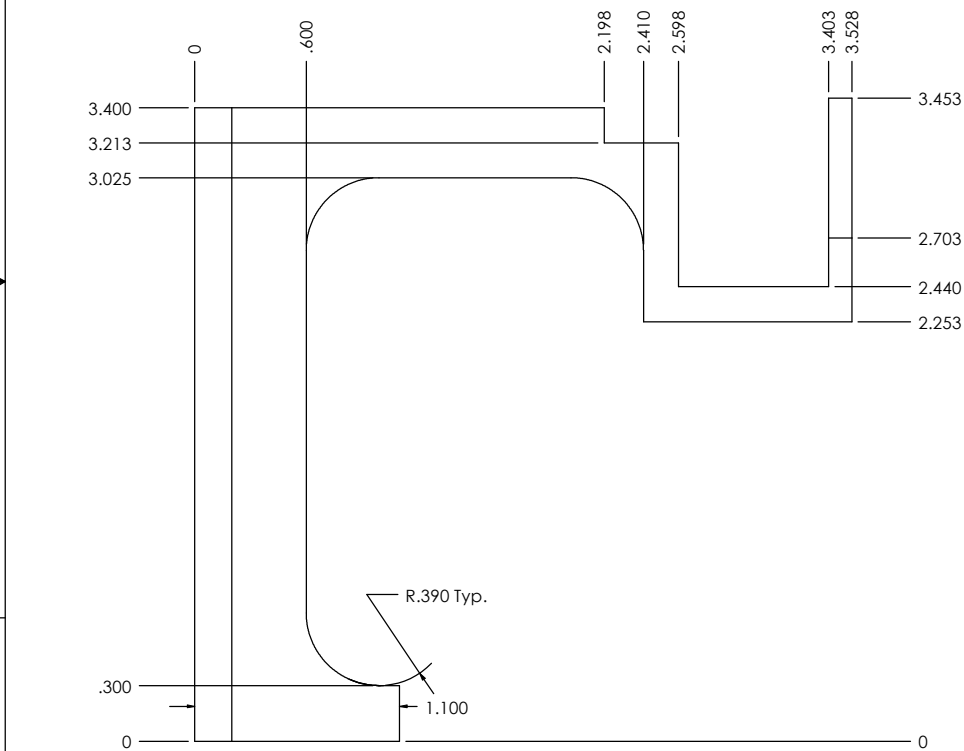
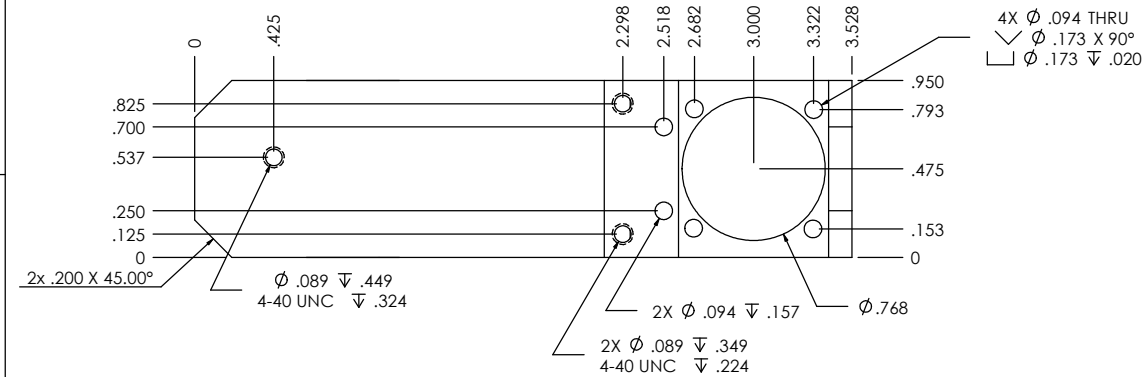
BILL OF MATERIALS						last updated on: Monday, March 30, 2009 3:17:16 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: 2 PLACE DIM ±.01 3 PLACE DIM ±.005 4 PLACE DIM ±.0005 ANGLES ±1° 1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .015 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH, MAX .003 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED			APPROVALS		DATE		
Inspector					ENGINEER Jason Feldman 831-775-1837		Monterey Bay Aquarium Research Institute		
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .015 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH, MAX .003 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED			CHECKED		7700 Sandholdt Road Moss Landing, CA 95039		
Engineer					PROJECT NUMBER 701312.00		manipulator		
NEXT ASSY Description	NEXT ASSY Number	1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .015 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH, MAX .003 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED			PROJECT ESP 2G		SIZE C	DWG. NO. 1002451	REV. D
DO NOT SCALE DRAWING					CAD FILE: X:\701312 ESP 2G\SolidWorks files\Internal structure (1002209)		SHEET 21 OF 23		

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Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005	ANGLES ±1°	ENGINEER Jason Feldman 831-775-1837		7700 Sandholdt Road Moss Landing, CA 95039			
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. TOLERANCE LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .015				CHECKED					
Engineer		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				PROJECT NUMBER 701312.00		manipulator			
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .003 INCHES FOR SINGLE SURFACE.				PROJECT ESP 2G		SIZE C	DWG. NO. 1002451	REV. D	
DO NOT SCALE DRAWING		7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED				CAD FILE: X:\701312 ESP 2G\SolidWorks files\Internal structure (1002209)					
						SHEET 22 OF 23					

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Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:					APPROVALS		DATE		Monterey Bay Aquarium Research Institute	
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005	ANGLES ±1°		ENGINEER Jason Feldman 831-775-1837			7700 Sandholdt Road Moss Landing, CA 95039		
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DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\Internal structure (1002209)							SHEET 23 OF 23			