

REV.	DATE	DCN #	DRAWING TREE #
v1	5 May 2011	E1100408	E1100409
v2	31 May 2011	E1100459	E1100409
v3	11 July 2011	E1100657	E1100409

MAIN CONFIGURATION 1

CONFIGURATIONS DIFFER AS A FUNCTION OF SHAFT HOLES USED, MIRROR POSITION CAN BE TRANSLATED BY THE COMBINATION OF HOLES USED.

QTY. SAME BOTH CONFIGURATIONS

D

C

B

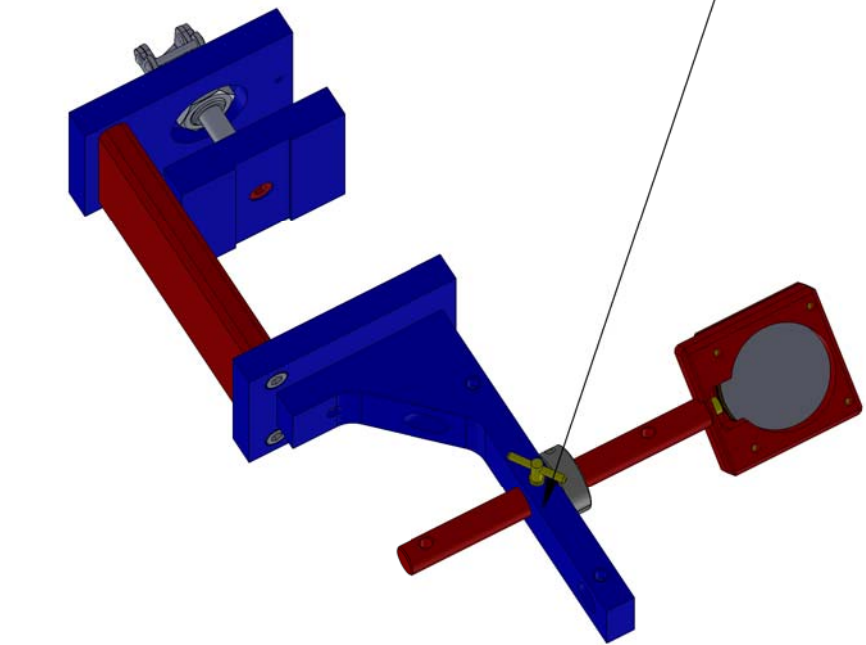
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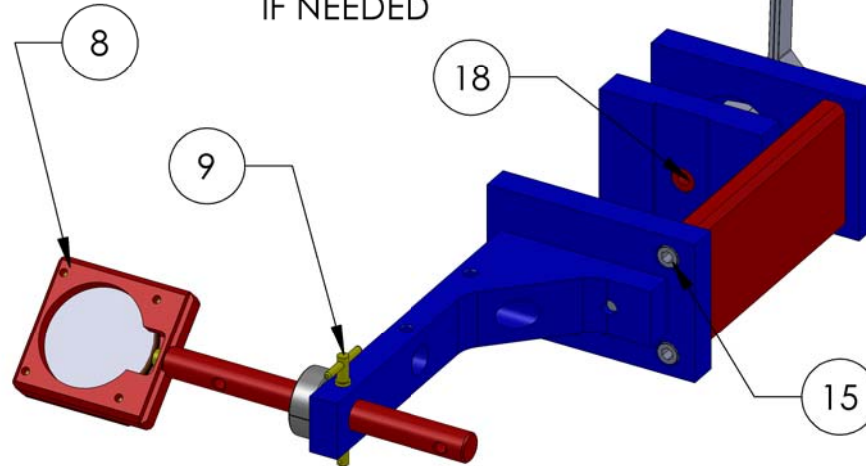
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NOTE 6

5

ALT CONFIGURATION IF NEEDED



NOTES CONTINUED:

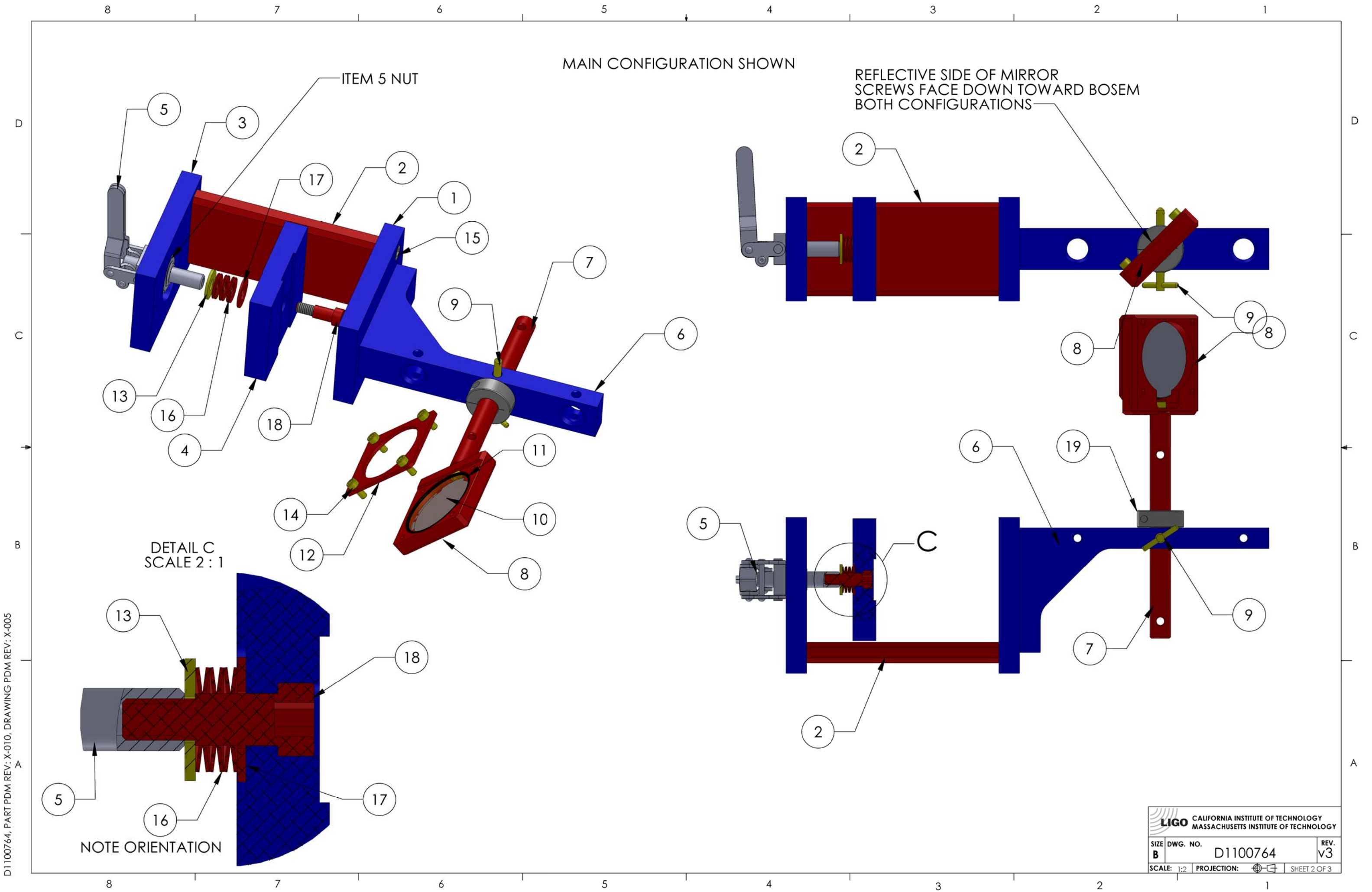
4. VENDOR REFERENCES ARE PROVIDED AS EXAMPLES OF PARTS MEETING ALL REQUIRED SPECIFICATIONS. EQUIVALENTS ARE ALWAYS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.

5. REFER TO LIGO E0900357 FOR ASSEMBLY AND LOADING PROCEDURE.

6. THE VINYL HANDEL ON ITEM 5 TOGGLE CLAMP MUST BE REMOVED AND DISCARDED THEN CLEANED PRIOR TO USE.

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY C-1	QTY. C-2
19	McMASTER_9421T7	1/2" SHAFT CLAMP	316 SSTL	1	1
18	McMASTER_97345A578	SHOULDER SCREW, 1/4-20 THD 5/16 DIA SHOULDER X 1/2 LG	316 SSTL	1	1
17	McMASTER_90107A030	WASHER .34 ID X .75 OD X .04-.06 THK.	316 SSTL	1	1
16	McMASTER_9713k65	BELLEVILLE SPRING WASHER, .317 ID X .625 OD X .022 THK	302 SSTL	6	6
15	HOLOKROME_78056	SHCS, 1/4"-20x.625"	18-8 SS	6	6
14	MSC_05667043	SCREW SHCS, 8-32 X 3/8 LG	18-8 SSTL	5	5
13	McMASTER_92217A475	WASHER .28 ID X .73 OD X .05-.08 THK.	18-8 SSTL	1	1
12	D1100804	BOSEM 45 DEG MIRROR TOP	304 SSTL	1	1
11	McMASTER_1201T751	O-RING, AS568A-032 .070" THK X 1.87" ID	VITON	1	1
10	EDMUND OPTICS_NT64-440	2" DIA MIRROR	BK7 GLASS	1	1
9	McMASTER_98405A012	QUICK RELEASE PIN	18-8 SSTL	1	1
8	D1100798	BOSEM 45 JIG MIRROR MOUNT	304 SSTL	1	1
7	D1100797	BOSEM 45 DEG MIRROR JIG SHAFT	304 SSTL	1	1
6	D1100767	BOSEM 45 DEG. MIRROR JIG LEG	6061-T6 Al	1	1
5	CarrLane-150-TPC-S	TOGGLE CLAMP	STAINLESS STEEL	1	1
4	D1100768	BOSEM 45 DEG MIRROR JIG PUSHER	6061-T6 Al	1	1
3	D1100774	BOSEM 45 DEG MIRROR JIG PUSHER MOUNT	6061-T6 Al	1	1
2	D1100765	BOSEM 45 DEG MIRROR JIG SPACER	304 SSTL	1	1
1	D1100766	BOSEM 45 DEG MIRROR JIG END BLOCK	6061-T6 Al	1	1

DIMENSIONS ARE IN INCHES		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
TOLERANCES: .XX ± N/A .XXX ± N/A		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, .03 x 45°. 3. DO NOT SCALE FROM DRAWING.		ADVANCED LIGO		BOSEM 45 DEG MIRROR JIG ASSEMBLY	
ANGULAR ± N/A*		MATERIAL N/A FINISH N/A μinch		SUB-SYSTEM SEI		DESIGNER M.HILLARD 21 Apr. 2011	
				NEXT ASSY SUS TOOLING		DRAFTER M.HILLARD 5 May 2011	
						CHECKER J.LEWIS 5 May 2011	
						APPROVAL C.TORRIE 5 May 2011	
				SCALE: 1:2		DWG. NO. D1100764	
				PROJECTION:		REV. v3	
				SHEET 1 OF 3			



MAIN CONFIGURATION SHOWN

REFLECTIVE SIDE OF MIRROR
SCREWS FACE DOWN TOWARD BOSEM
BOTH CONFIGURATIONS

DETAIL C
SCALE 2:1

NOTE ORIENTATION

D1100764, PART PDM REV: X-010, DRAWING PDM REV: X-005

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE	DWG. NO.	REV.
B	D1100764	v3
SCALE: 1:2	PROJECTION:	SHEET 2 OF 3

ALT CONFIGURATION
SHOWN LOOKING DOWN ON BOSEM

MIRROR ASSEMBLY SAME BOTH
CONFIGURATIONS ONLY DIFFERENCE IS
THE HOLE COMBINATION USED

MAIN BOSEM ALIGNMENT CONFIGURATION
AS SHOWN LOOKING DOWN ON BOSEM

D

D

C

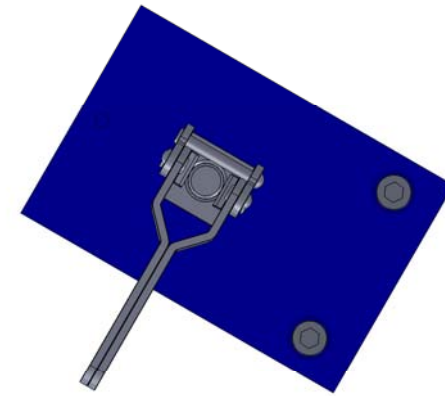
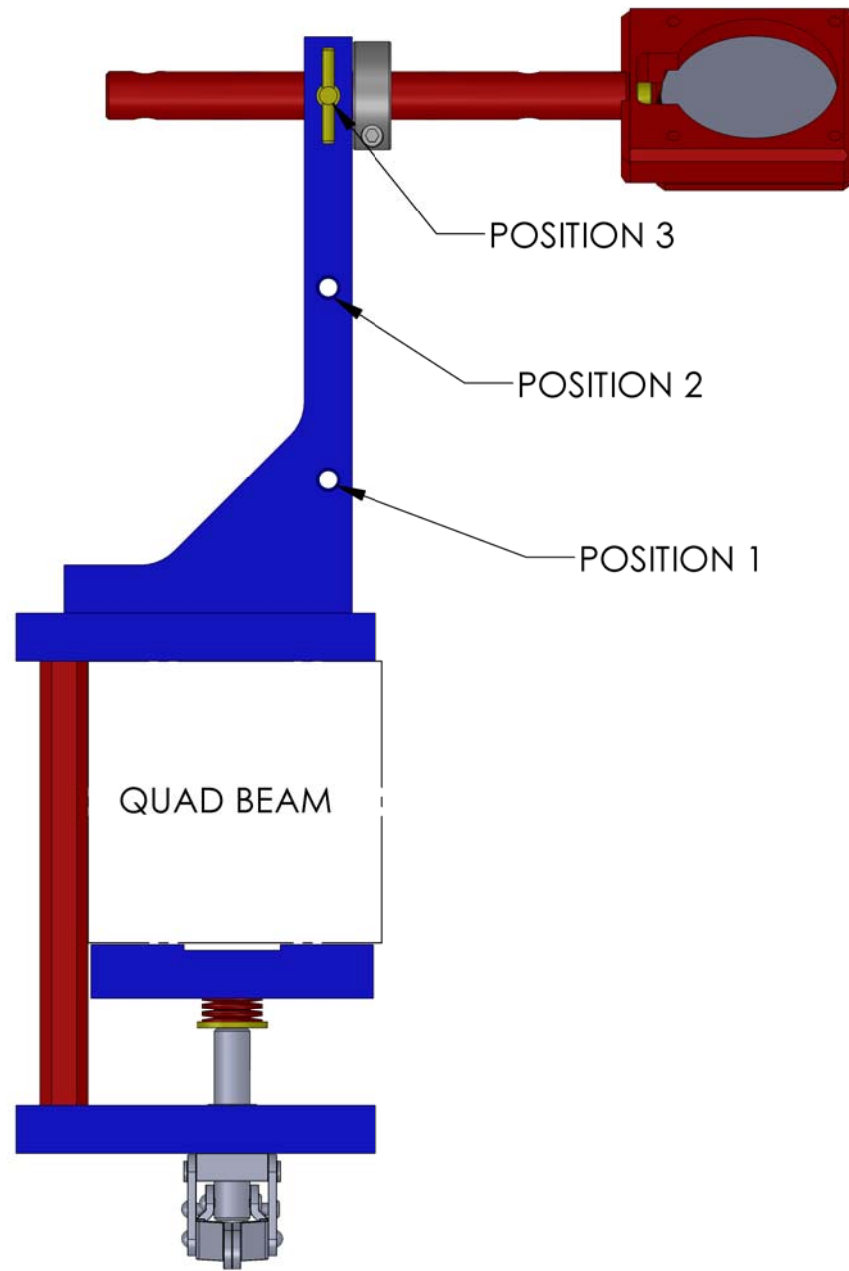
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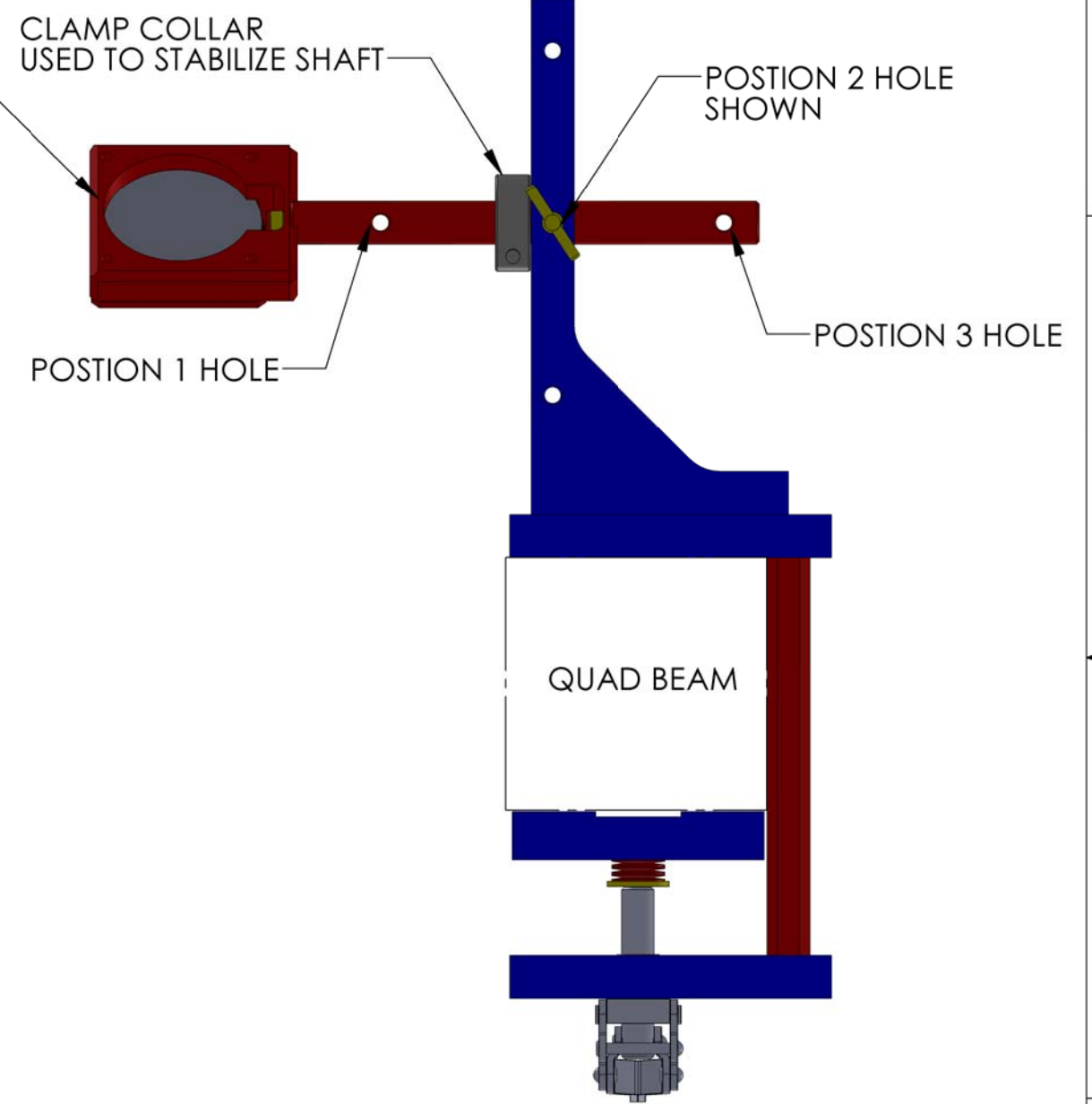
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FOR ALT CONFIGURATION
TOOL USED BY ROTATING 180 DEG.
THEN REINSERTING MIRROR ASSEMBLY



D1100764, PART PDM REV: X-010, DRAWING PDM REV: X-005

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE B	DWG. NO. D1100764
SCALE: 1:2	PROJECTION: SHEET 3 OF 3
REV. v3	