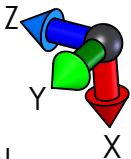


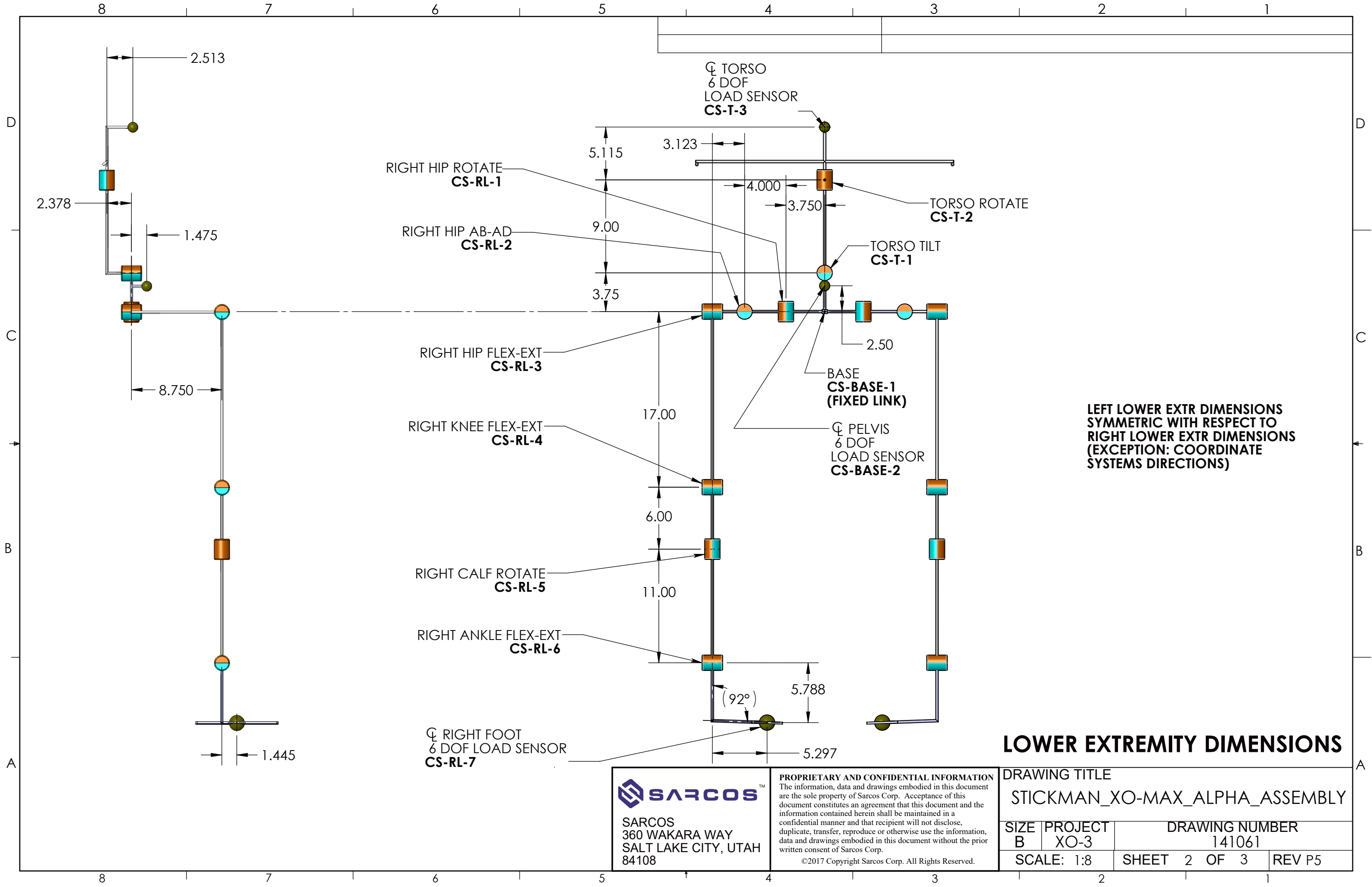
REV	DESCRIPTION	DRWN	DATE
P3	UPDATED ELBOW RANGE OF MOTION AND LOWER ARM LINK LENGTHS	TL	7-3-19
P4	UPDATED RANGES OF MOTION AND LINK LENGTHS	TL/FC	11-5-19
P5	ROTATED TORSO 6 DOF LC C'SYSTEM (CS-T-3) 180 DEG ABOUT X	TL	11-12-19

COORDINATE SYSTEMS AND RANGES OF MOTION				
DEGREE OF FREEDOM	PROXIMAL COORDINATE SYSTEM	MAX RANGE OF MOTION (TOTAL)	MAX RANGE OF MOTION (RELATIVE TO SHOWN) VARIANT A	RESTRICTED RANGE OF MOTION (WHERE APPLICABLE)
BASE	CS-BASE-1	FIXED	FIXED	
PELVIS 6 DOF LOAD SENSOR	CS-BASE-2	N/A	N/A	
TORSO TILT	CS-T-1	40°	Plus 20°/Minus 20°	
TORSO ROTATE	CS-T-2	40°	Plus 20°/Minus 20°	
TORSO 6 DOF LOAD SENSOR	CS-T-3	N/A	N/A	
RIGHT HIP ROTATE	CS-RL-1	45°	Plus 30°/Minus 15°	Plus 30°/Minus 10°
RIGHT HIP AB-AD	CS-RL-2	60°	Plus 30°/Minus 30°	Plus 20°/Minus 20°
RIGHT HIP FLEX-EXT	CS-RL-3	170°	Plus 145°/Minus 25°	
RIGHT KNEE FLEX-EXT	CS-RL-4	125°	Plus 00°/Minus 125°	
RIGHT CALF ROTATE	CS-RL-5	90°	Plus 45°/Minus 45°	Plus 35°/Minus 15°
RIGHT ANKLE FLEX-EXT	CS-RL-6	105°	Plus 60°/Minus 45°	Plus 60°/Minus 30°
RIGHT FOOT 6 DOF LOAD SENSOR	CS-RL-7	N/A	N/A	
RIGHT SHOULDER AB-AD	CS-RA-1	130°	Plus 120°/Minus 10°	
RIGHT SHOULDER FLEX-EXT	CS-RA-2	147.3°	Plus 120°/Minus 27.3°	
RIGHT HUMERAL ROTATE	CS-RA-3	130°	Plus 50°/Minus 80°	
RIGHT ELBOW FLEX-EXT	CS-RA-4	153°	Plus 153°/Minus 00°	
RIGHT WRIST ROTATE	CS-RA-5	180°	Plus 90°/Minus 90°	
RIGHT HAND 6 DOF LOAD SENSOR	CS-RA-6	N/A	N/A	
LEFT HIP ROTATE	CS-LL-1	45°	Plus 30°/Minus 15°	Plus 30°/Minus 10°
LEFT HIP AB-AD	CS-LL-2	60°	Plus 30°/Minus 30°	Plus 20°/Minus 20°
LEFT HIP FLEX EXT	CS-LL-3	170°	Plus 145°/Minus 25°	
LEFT KNEE FLEX-EXT	CS-LL-4	125°	Plus 00°/Minus 125°	
LEFT CALF ROTATE	CS-LL-5	90°	Plus 45°/Minus 45°	Plus 35°/Minus 15°
LEFT ANKLE FLEX-EXT	CS-LL-6	105°	Plus 60°/Minus 45°	Plus 60°/Minus 30°
LEFT FOOT 6 DOF LOAD SENSOR	CS-LL-7	N/A	N/A	
LEFT SHOULDER AB-AD	CS-LA-1	130°	Plus 120°/Minus 10°	
LEFT SHOULDER FLEX-EXT	CS-LA-2	147.3°	Plus 120°/Minus 27.3°	
LEFT HUMERAL ROTATE	CS-LA-3	130°	Plus 50°/Minus 80°	
LEFT ELBOW FLEX-EXT	CS-LA-4	153°	Plus 153°/Minus 00°	
LEFT WRIST ROTATE	CS-LA-5	180°	Plus 90°/Minus 90°	
LEFT HAND 6 DOF LOAD SENSOR	CS-LA-6	N/A	N/A	


- NOTES:
- ROBOT IS SHOWN IN ZERO (DEFAULT) POSITION.
 - BASE LINK (PELVIS) IS FIXED.
 - ALL JOINTS ROTATE ABOUT THE Z AXIS.
(POSITIVE ANGULAR DISPLACEMENT IS POSITIVE ROTATION ABOUT Z)
 - COORDINATE SYSTEMS FOLLOW RIGHT-HANDED CONVENTION SHOWN.



MATERIAL	TOLERANCES (INCHES) (UNLESS SPECIFIED)	FILENAME: 141061				 SARCOS 360 WAKARA WAY SALT LAKE CITY, UTAH 84108	PROPRIETARY AND CONFIDENTIAL INFORMATION The information, data and drawings embodied in this document are the sole property of Sarcos Corp. Acceptance of this document constitutes an agreement that this document and the information contained herein shall be maintained in a confidential manner and that recipient will not disclose, duplicate, transfer, reproduce or otherwise use the information, data and drawings embodied in this document without the prior written consent of Sarcos Corp. ©2017 Copyright Sarcos Corp. All Rights Reserved.	DRAWING TITLE		
		SIGNATURES		DATE	QA:			STICKMAN_XO-MAX_ALPHA_ASSEMBLY		
		DRWN: TL		05 21 19	PROD:					
		CHK: FC		11-5-19	MGR:					
	FINISH 63 UNLESS OTHERWISE SPECIFIED	FRAC. ± 1/64 X.X ± 0.1 X.XX ± 0.01 X.XXX ± 0.005 X.XXXX ± 0.0005 ANGLE ± 0°30'	ENG:		PRG MGR:		DRAWING NUMBER			
						141061				
						SIZE B	PROJECT XO-3	DRAWING NUMBER 141061		
						SCALE: 1:8		SHEET 1 OF 3	REV P5	



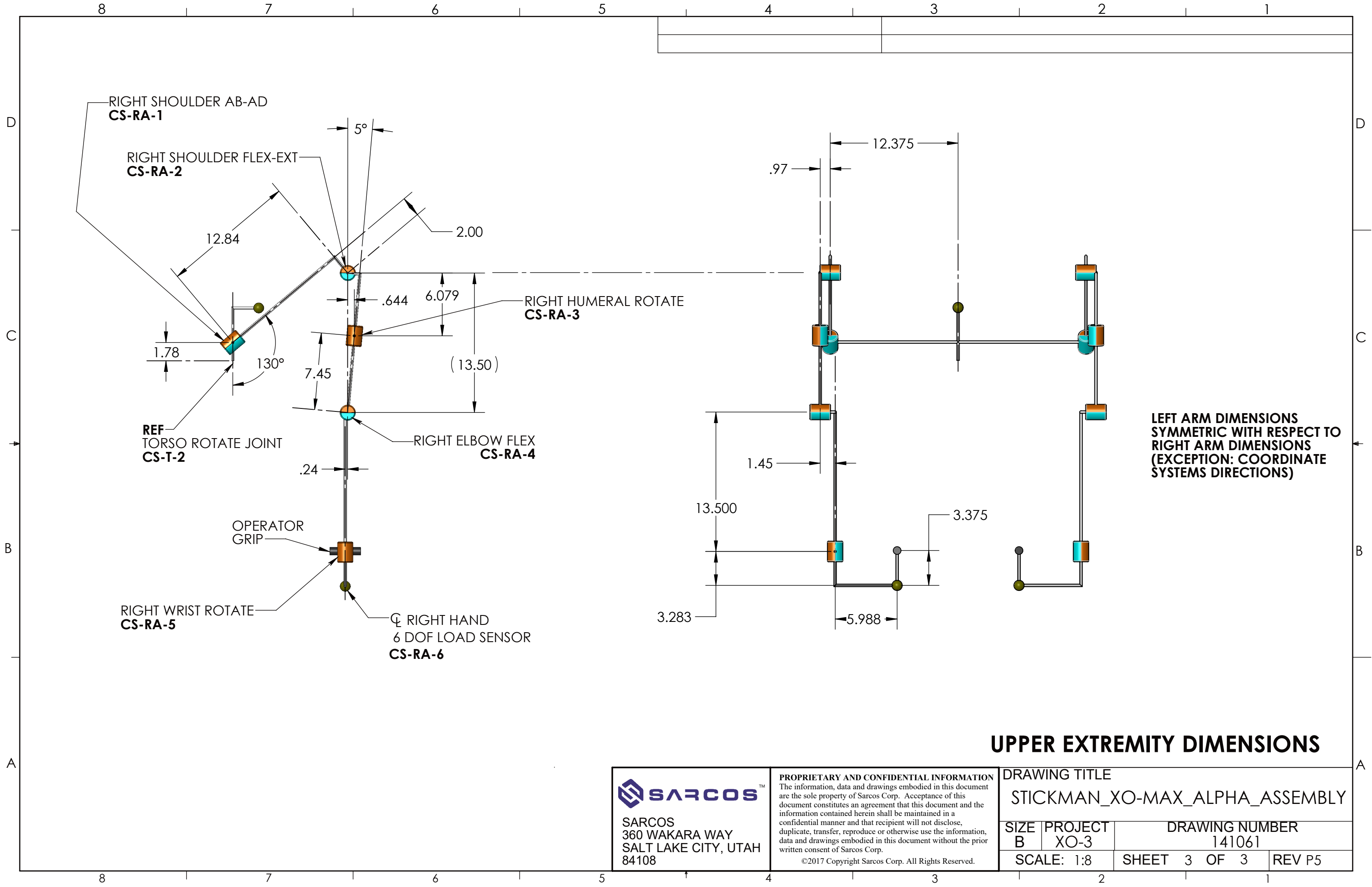
LOWER EXTREMITY DIMENSIONS




SARCOS
360 WAKARA WAY
SALT LAKE CITY, UTAH
84108

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DRAWING TITLE			
STICKMAN_XO-MAX_ALPHA_ASSEMBLY			
SIZE	PROJECT	DRAWING NUMBER	
B	XO-3	141061	
SCALE: 1:8	SHEET 2 OF 3	REV P5	



<div> SARCOS 360 WAKARA WAY SALT LAKE CITY, UTAH 84108</div>	<div>PROPRIETARY AND CONFIDENTIAL INFORMATION The information, data and drawings embodied in this document are the sole property of Sarcos Corp. Acceptance of this document constitutes an agreement that this document and the information contained herein shall be maintained in a confidential manner and that recipient will not disclose, duplicate, transfer, reproduce or otherwise use the information, data and drawings embodied in this document without the prior written consent of Sarcos Corp. ©2017 Copyright Sarcos Corp. All Rights Reserved.</div>	DRAWING TITLE STICKMAN_XO-MAX_ALPHA_ASSEMBLY		
		SIZE B	PROJECT XO-3	DRAWING NUMBER 141061
		SCALE: 1:8		SHEET 3 OF 3
				REV P5