

item	Description	MFR	Model	SSN	Category	Qty	Spares		Cost \$	Lead time wk/mo	Reference Drawing(s)	Comments
							desired	Qty on hand				
1	Actuator	Exlar	GSX40-0601-ICA-GA1-1B8-04-RB-AX-L3		mechanical	1	0		10,000	4		
2	Rotary Air Motor	Ingersoll Rand	M007RVR275BR6		mechanical	1	1		2,450	3		
3	Air motor coupling	Amerigear Gear	200F / 100C		mechanical	1	1		300	1		couplings
4	Inner drum rotation servomotor	Magmotor	C33-H-400E	720280115	mechanical	1	1		800			
5	Inner drum rotation speed reducer	Harmonic Drive	ISR01M0601CCGPSP4265		mechanical	1	1		2,300			
6	Pinion Gear	UCO	872-LM3130		mechanical	1	1		1,000			fab'd in house
7	Swing arm motor controller	Galil	DMC-4040 (16bit,ISCNTL,MO,TRES4) - C022-I000-D3740-SRH90		Electronics	1	1	0.5	3,770	2-3 wks		shared spare with rotation controller
8	Swing arm safety PLC	Galil	RIO-47122-16bit-BiSS		Electronics	1	1	1	520	2-3 wks		RIO-47122-16bit-BiSS can be used for either dock or safety PLC
9	Tower docking PLC	Galil	RIO-47122-16bit-BiSS or RIO-47142-16bit		Electronics	1		1?	520	2-3 wks		spare swapped in (April 2018) status of removed unit unknown RIO-47122-16bit-BiSS can be used for either dock or safety PLC
10	Rotation motor controller	Galil	DMC-4040 (16bit,ISCNTL,MO,TRES4) - C022-I000-D3740-SRH90		Electronics	1	1	0.5	3,770	2-3 wks		shared spare with swing arm controller
11	Kinematic couplings	Bal-Tec	2000-CS / VB-2000-CPM		mechanical	3	0		1,500	1 mo		deployment system; canoe sphere. V-block
12	Kinematic couplings	Bal-Tec	CS-1125-CPM / VB-750-CPM modified		mechanical	3			220	2 wks	872-LM4522	Mirror Assy; canoe sphere. V-block
13	Deploy clamps	Destaco	8007 EHL		mechanical	4	4	1	311			no manuals available, only spec sheet
14	Docking Clamp	Destaco	803		mechanical	1	?	0	208	1 wk	872-LM5100 872-LM6009	docking system; no manuals available, only spec sheet
15	Solenoid Valve	BIMBA/MDF	M4V230C-06-24VDC		mechanical	1			132	1 mo	872-LM5100	docking system, could serve as replacement for S22, Check
16	Solenoid Valve	Bimba/Pneumadyne	S22U4C-DS-24-0		mechanical	5	4	1	113			deployment clamps, may be discontinued, check
17	Hall Effect Sensor	Cherry	VN101501		Electronics	1	?	0	10	1 wk	872-LM6009	docking system
18	Compressed air delivery actuator	Bimba	FOD-040.38-BHY		mechanical	1	1	1	100	1 mo		
19	Flowmeter	Hedland	H604S-002		mechanical	1	?	0	600	5 wks	872-LM5101 872-LM5201	M1 Box glycol system; have manual
20	Flow Control Valve	Parker	F-820-SS		mechanical	1	?	0	308	5 wks	872-LM5101 872-LM5201	M1 Box glycol system
21	Detent Valve Solenoid	Ingersoll Rand	116218-39		mechanical	1	0	0	29	3 wks		
22	Deploy FOB (fan out board)	UCO/custom	872-LE0420-DeployFOB_r01		Electronics	1		1				
23	RotationFOB	UCO/custom	872-LE0120-RotationFOB_r00		Electronics	1		1				verify mods
24	SafetyFOB	UCO/custom	872-LE0440-SafetyFOB_r01		Electronics	1		**				spare @UCSC to be shipped Feb 2019
25	Power protection board	UCO/custom	872-LE0140-PowerProt_r00B		Electronics	1		**				spare @UCSC to be shipped Feb 2019
26	AirFOB	UCO/custom	872-LE0460-AirFOB_r00a		Electronics	1		1				
27	Actuator encoder (magnetic strip)	Renishaw	LA11		Electronics	2		1				Actuator travel, absolute encoder - connected to SafetyPLC
28	48V power supply	TDK-Lamda	HWS150048		Electronics	1		0	1,685		872-LM5200	motor power for rotation and deploy / retract
29	24V power supply	TDK-Lamda	LS150-24		Electronics	1		0	40		872-LM5200	logic power for rotation and deploy / retract
30	25A @ 120VAC SSR	Crydom	CWA2425		Electronics	2		0	50			used to control 120VAC to 24V and 48V supplies
31	40A @ 100VDC SSR (4-32V DC input)	Crydom	DC100D40C		Electronics	2		0	105			used to control 48VDC to Rotation and deploy motor controllers

32	10A @ 60VDC SSR (3-32V DC input)	Crydom	GN84137750	Electronics	1	0	55	electrical isolation for "Module Installed" signal
33	10A @ 24-240V SSR (120VAC input)	Omron	G3NA-D210B-AC100-240	Electronics	1	0	65	isolation and voltage drop for "K1 ESTOP"
34	5A @ 60VDC (3-32VDC input)	Crydom	DC60S5	Electronics	1	0	35	used to control 24VDC to inner drum
35	12 ohm 300W resistor	Vishay-Huntington	FVE030020E12R0KE	Electronics	2	1	20	load dump for power protection board
36	Drum encoder (magnetic strip)	Renishaw	LM13	Electronics	1	?		load encoder for drum rotation
37	Ethernet router	Ubiquiti	Edgerouter X-SFP	Electronics	1	1	84	872-LM5200
38	contact blocks	custom	?	Electronics	lot	full set		fab'd in house
39	contact springs	custom	?	Electronics	lot	full set		full set plus...
40	MS connectors	various	various	Electronics	lot	lot		1 each of crimp cable connectors (not panel connectors)
41	Renishaw absolute encoder	Renishaw	LA11DCA13BKB10DF00					