

Rev. 1.2	MOTION CONTROL										MECHANICAL					ENVIRONMENT				SPECIAL		Location					
Axis Number	Device Description	Custom / Off The Shelf	Axis description	Motion Type	Actuator Type	Range (mm/°)	Accuracy (mm/°)	Precision / Repeatability (mm/°)	Encoder Type	Synch' with other axis	Synch' with signals / sensors	Load (Kg)	Force / Torque	Speed	Acceleration	Brake Required	Fixed or Removable	Vacuum	Radiation (Neutron)	Radiation (Gamma)	Magnetic Field Strength	Temp	Safety Critical - PSS Interface	Local MPS Required	Distance from Control Rack	Location	Distance from moderator (m)
1	Pulse Shaping Chopper Unit 1	Costum	X1	Linear	Electrical	200	0.1	0.1	Absolute			800	Medium	Low	Low	Yes	Removable	Rough Vacuum	High	High					>30	Bunker	6.5
2	Pulse Shaping Chopper Unit 1	Costum	X2	Linear	Electrical	200	0.1	0.1	Absolute	Yes		800	Medium	Low	Low	Yes	Removable	Rough Vacuum	High	High					>30	Bunker	6.5
3	Pulse Shaping Chopper Unit 2	Costum	X1	Linear	Electrical	200	0.1	0.1	Absolute			800	Medium	Low	Low	Yes	Removable	Rough Vacuum	High	High					>30	Bunker	6.5
4	Pulse Shaping Chopper Unit 2	Costum	X2	Linear	Electrical	200	0.1	0.1	Absolute	Yes		800	Medium	Low	Low	Yes	Removable	Rough Vacuum	High	High					>30	Bunker	6.5
5	Heavy Shutter	Costum	X1	Linear	Pneumatic	90	0.05	0.05	Absolute			1000	Medium	Low	Low		Fixed		High	High			Yes		>10	Bunker	11
6	Secondary Shutter	Shelf	Z1	Linear	Pneumatic	120	1	1	Absolute			5	Low	Medium	Medium		Fixed		High	High					~15	Cave	49.5
7	Variable Pinhole System	Shelf	X1	Rotary	Electrical	360	0.1	0.1	Absolute			500	Medium	Low	Low		Fixed		Medium	High					~15	Cave	50
8	Variable Pinhole System	Shelf	X2	Rotary	Electrical	360	0.1	0.1	Absolute			500	Medium	Low	Low		Fixed		Medium	High					~15	Cave	50
9	Variable Pinhole System	Shelf	Y1	Linear	Electrical	400	0.1	0.1	Absolute			5	Medium	Low	Low		Fixed		Medium	High					~15	Cave	50
10	Variable Pinhole System	Shelf	Y1	Linear	Pneumatic	300	0.1	0.1				5	Medium	Low	Low		Fixed		Medium	High					~15	Cave	50
11	Variable Pinhole System	Shelf	Y1	Linear	Pneumatic	300	0.1	0.1				5	Medium	Low	Low		Fixed		Medium	High					~15	Cave	50
12	Variable Pinhole System	Shelf	Y1	Linear	Pneumatic	300	0.1	0.1				5	Medium	Low	Low		Fixed		Medium	High					~15	Cave	50
13	Slit 1	Shelf	Y1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
14	Slit 1	Shelf	Y2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
15	Slit 1	Shelf	Z1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
16	Slit 1	Shelf	Z2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
17	Slit 2	Shelf	Y1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
18	Slit 2	Shelf	Y2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
19	Slit 2	Shelf	Z1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
20	Slit 2	Shelf	Z2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
21	Slit 3	Shelf	Y1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
22	Slit 3	Shelf	Y2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
23	Slit 3	Shelf	Z1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
24	Slit 3	Shelf	Z2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
25	Slit 4	Shelf	Y1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
26	Slit 4	Shelf	Y2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
27	Slit 4	Shelf	Z1	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
28	Slit 4	Shelf	Z2	Linear	Electrical	35	0.1	0.1	Absolute		Yes	5	Low	Low	Low		Removable			Medium					~15	Cave	55
29	Sample Stage 1a	Shelf	X1	Linear	Electrical	500	0.1	0.1	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	53
30	Sample Stage 1a	Shelf	X2	Rotary	Electrical	20	0.01	0.01	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	53
31	Sample Stage 1a	Shelf	Y1	Linear	Electrical	500	0.1	0.1	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	53
32	Sample Stage 1a	Shelf	Y2	Rotary	Electrical	20	0.01	0.01	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	53
33	Sample Stage 1a	Shelf	Z1	Linear	Electrical	1000	0.1	0.1	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	53
34	Sample Stage 1a	Shelf	Z2	Rotary	Electrical	360	0.01	0.01	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	53
35	Sample Stage 1b	Shelf	X1	Linear	Electrical	500	0.1	0.1	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	60
36	Sample Stage 1b	Shelf	X2	Rotary	Electrical	20	0.01	0.01	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	60
37	Sample Stage 1b	Shelf	Y1	Linear	Electrical	500	0.1	0.1	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	60
38	Sample Stage 1b	Shelf	Y2	Rotary	Electrical	20	0.01	0.01	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	60
39	Sample Stage 1b	Shelf	Z1	Linear	Electrical	1000	0.1	0.1	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	60
40	Sample Stage 1b	Shelf	Z2	Rotary	Electrical	360	0.01	0.01	Absolute			1000	Medium	Low	Low		Fixed				Medium				~15	Cave	60
41	Sample Stage 2	Shelf	X1	Linear	Electrical	100	0.001	0.001	Absolute			100	Medium	Medium	Low		Removable				Low				~15	Cave	55
42	Sample Stage 2	Shelf	X2	Rotary	Electrical	20	0.01	0.01	Absolute			100	Medium	Low	Low		Removable				Low				~15	Cave	55
43	Sample Stage 2	Shelf	Y1	Linear	Electrical	100	0.001	0.001	Absolute			100	Medium	Medium	Low		Removable				Low				~15	Cave	55
44	Sample Stage 2	Shelf	Y2	Rotary	Electrical	20	0.01	0.01	Absolute			100	Medium	Low	Low		Removable				Low				~15	Cave	55
45	Sample Stage 2	Shelf	Z1	Linear	Electrical	200	0.001	0.001	Absolute			100	Medium	Medium	Low		Removable				Low				~15	Cave	55
46	Sample Stage 2	Shelf	Z2	Rotary	Electrical	360	0.01	0.01	Absolute			100	Medium	Low	Low		Removable				Low				~15	Cave	55
47	Detector Stage 1	Shelf	Y1	Linear	Electrical	100	0.1	0.1	Absolute			15	Low	Medium	Low		Removable				Medium				~15	Cave	60
48	Detector Stage 1	Shelf	Z1	Linear	Electrical	10	0.1	0.1	Absolute			15	Low	Medium	Low		Removable				Medium				~15	Cave	60
49	Detector Stage 1	Shelf	Z2	Rotary	Electrical	10	0.01	0.01	Absolute			15	Medium	Medium	Low		Removable				Medium				~15	Cave	60
50	Detector Stage 2	Shelf	Y1	Linear	Electrical	100	0.1	0.1	Absolute			60	Low	Medium	Low		Removable				Medium				~15	Cave	60
51	Detector Stage 2	Shelf	Z1	Linear	Electrical	100	0.1	0.1	Absolute			60	Low	Medium	Low		Removable				Medium				~15	Cave	60
52	Detector Stage 2	Shelf	Z2	Rotary	Electrical	100	0.1	0.1	Absolute			60	Low	Medium	Low		Removable				Medium				~15	Cave	60
53	Camera Optics Motor 1	Shelf	Z1	Linear	Electrical	60	0.1	0.1	Absolute			10	Low	Medium	Low		Removable								~15	Cave	60
54	Camera Optics Motor 2	Shelf	Z1	Linear	Electrical	60	0.1	0.1	Absolute			10	Low	Medium	Low		Removable								~15	Cave	60

