

Tools								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
SM1 Spanner Wrench, Graduated, Length = 3.88"	SPW602	Thorlabs	1	\$26.75	\$26.75	-	-	-
SM2 Spanner Wrench, Length = 4.35"	SPW604	Thorlabs	1	\$44.50	\$44.50	-	-	-
Metric Hex Key Set	-	-	1	-	-	-	-	-
Inch Hex Key Set	-	-	1	-	-	-	-	-
Flathead Screwdriver	-	-	1	-	-	-	-	-
Small Moncky Wrench	-	-	1	-	-	-	-	-
Nipper tool	-	-	1	-	-	-	-	-
Vernier Caliper 200mm	-	-	1	-	-	-	-	-

Breadboard								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
#031 Optical Breadboard 2	#031	Machine Shop	1	-	-	1175	-	1175

Light Source								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Stabilized Fiber-Coupled Light Source w/ Universal Power Adapter, 360 - 2600 nm, M6 Taps	SLS201L/M	Thorlabs	1	\$1,010.00	\$1,010.00	1173	-	1173
Adapter with External M6 x 1.0 Threads and External M4 x 0.7 Threads	AP6M4M	Thorlabs	2	\$1.94	\$3.88	2	-	4
Ø12.7 mm Optical Post, SS, M4 Setscrew, M6 Tap, L = 30 mm	TR30/M	Thorlabs	2	\$4.74	\$9.48	25	-	50
Ø12.7 mm Post Holder, Spring-Loaded Hex-Locking Thumbscrew, L=30 mm	PH30/M	Thorlabs	2	\$7.03	\$14.06	38	-	76
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 10 mm Long	-	-	2	-	-	5	-	10

Collimator								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Cage Assembly Rod, 6" Long, Ø6 mm, 4 Pack	ER6-P4	Thorlabs	1	\$32.21	\$32.21	-	-	-
SM1-Threaded 30 mm Cage Plate, 0.35" Thick, 2 Retaining Rings, M4 Tap	CP02/M	Thorlabs	4	\$16.40	\$65.60	-	-	-
Ø1" Aspheric Lens, SM1 Mounted, f = 79.0 mm, NA = 0.143, Uncoated	ASL10142M	Thorlabs	2	\$337.00	\$674.00	-	-	-
Ø1" Mounted Precision Pinhole, 1000 ± 10 µm Pinhole Diameter	P1000S	Thorlabs	1	\$67.50	\$67.50	-	-	-
Ring-Actuated SM1 Iris Diaphragm	SM1D12D	Thorlabs	1	\$65.75	\$65.75	-	-	-
Cardboard Cover	-	Hand Made	1	-	-	12	-	12

Fixed Mirror								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Kinematic Mirror Mount for Ø50.8 mm Optics with Post-Centered Front Plate, M4 Taps	KM200CP/M	Thorlabs	1	\$101.00	\$101.00	149	-	149
Ø2" (Ø50.8 mm) UV Enhanced Aluminum Mirror	PF20-03-F01	Thorlabs	1	\$96.75	\$96.75	53	-	53
Ø12.7 mm Optical Post, SS, M4 Setscrew, M6 Tap, L = 20 mm	TR20/M	Thorlabs	1	\$4.75	\$4.75	16	-	16
Ø12.7 mm Post Holder, Spring-Loaded Hex-Locking Thumbscrew, L=30 mm	PH30/M	Thorlabs	1	\$7.03	\$7.03	38	-	38
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 10 mm Long	-	-	1	-	-	5	-	5

Alignment Target (Fixed Mirror)								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Lens Mount with Retaining Ring for Ø2" Optics, M4 Tap	LMR2/M	Thorlabs	1	\$25.25	\$25.25	19	-	-
Alignment Target (Cardboard)	-	Hand Made	1	-	-	-	-	-
SM2RR - SM2 Retaining Ring for Ø2" Lens Tubes and Mounts	SM2RR	Thorlabs	1	\$6.90	\$6.90	1	-	-
Ø12.7 mm Optical Post, SS, M4 Setscrew, M6 Tap, L = 30 mm	TR20/M	Thorlabs	1	4.74	\$4.74	26	-	-
R2/M - Slip-On Post Collar for Ø1/2" Posts, Metric	R2/M	Thorlabs	1	\$5.00	\$5.00	4	-	-

Flip Mirror								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Kinematic Mirror Mount for Ø50.8 mm Optics with Post-Centered Front Plate, M4 Taps	KM200CP/M	Thorlabs	1	\$101.00	\$101.00	149	-	149
Ø2" (Ø50.8 mm) UV Enhanced Aluminum Mirror	PF20-03-F01	Thorlabs	1	\$96.75	\$96.75	53	-	53
Ø12.7 mm Optical Post, SS, M4 Setscrew, M6 Tap, L = 20 mm	TR20/M	Thorlabs	1	\$4.75	\$4.75	-	-	-
#040 Optical Post 13mm	#040	Machine Shop	1	-	-	11	-	11
Ø12.7 mm Post Holder, Spring-Loaded Hex-Locking Thumbscrew, L=20 mm	PH20/M	Thorlabs	1	\$7.03	\$7.03	28	-	28
18-8 Stainless Steel Hex Drive Flat Head Screw M6 x 1 mm Thread, 16 mm Long	-	-	1	-	-	4	-	4
#032 Flip Mirror Plate 2	#032	Machine Shop	1	-	-	53	-	53
NSK Stainless Miniature Bearing ZZ with Flange, F686-H-ZZ	F686-H-ZZ	NSK	1	\$1.80	\$1.80	3	-	3
#033 Bearing Spacer	#033	Machine Shop	1	-	-	2	-	2
18-8 Stainless Steel Socket Head Screw, M6 x 1 mm Thread, 15 mm Long	-	-	1	-	-	5	-	5
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 8 mm Long	-	-	2	-	-	4	-	8
Plastic Sheet between #032 (Flip Mirror Plate2) and #031 (Optical Breadboard 2)	-	Hand Made	1	-	-	4	-	4

Integrating Sphere and Spectrometer								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
3-Port Integrating Sphere, 2 in., PTFE	819D-SL-2	Newport	1	\$1,556.00	\$1,556.00	473	-	473
18-8 Stainless Steel Socket Head Screw, 1/4"-20 Thread Size, 3/8" Long	-	-	1	-	-	5	-	5
LR1-spectrometer, config.B 200-1200nm, 2nm resolution with 50um slit	-	Aseq Instruments	1	\$749.00	\$749.00	453	-	453
Nylon Cable Tie	-	-	6	-	-	1	-	6
#036 Spectrometer Plate 2	#036	Machine Shop	1	-	-	113	-	113
#037 Spectrometer Spacer 2	#037	Machine Shop	2	-	-	12	-	24
#035 Slide Plate 2	#035	Machine Shop	1	-	-	173	-	173
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 25 mm Long	-	-	4	-	-	7	-	28
#042 Ball Plunger Mount	#042	Machine Shop	1	-	-	28	-	28
18-8 Stainless Steel Slotted Ball-Nose Spring Plunger with 440C Stainless Steel Nose, M6x1, 2-2.9 lb. Nose Force	85015A47	McMaster	1	\$6.59	\$6.59	2	-	2
18-8 Stainless Steel Nut, M6 x 1 mm Thread	-	-	1	-	-	2	-	2
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 20 mm Long	-	-	2	-	-	6	-	12
MGN12 300mm Linear Rail Guide with MGN12H Carriage Block	B0762MPVN3	Amazon	1	\$26.99	\$26.99	247	-	247
18-8 Stainless Steel Hex Drive Flat Head Screw M3 x 0.5 mm Thread, 8 mm Long	-	-	4	-	-	1	-	4
#039 Linear Guide Spacer	#039	Machine Shop	4	-	-	16	-	64
18-8 Stainless Steel Socket Head Screw M3 x 0.5 mm Thread, 30 mm Long	-	-	4	-	-	2	-	8
#061 Integrating Sphere Hood	#061	Machine Shop	1	-	-	83	-	83
#062 Flip Mirror Alignment	#062	Machine Shop	1	-	-	13	-	13
18-8 Stainless Steel Flat-Tip Set Screws 4-40 Thread, 1/8" Long	-	-	2	-	-	0	-	0
18-8 Stainless Steel Hex Drive Flat Head Screw M6 x 1 mm Thread, 30 mm Long	-	-	1	-	-	8	-	8
18-8 Stainless Steel Wing Nut M6 x 1 mm Thread	-	-	1	-	-	6	-	6
18-8 Stainless Steel Washer for M6 Screw Size, 6.4 mm ID, 12 mm OD	-	-	1	-	-	1	-	1
#071 Spectrometer Spacer 3	#071	Machine Shop	1	-	-	71	-	71
#072 IR Spectrometer Plate	#072	Machine Shop	1	-	-	163	-	163
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 20 mm Long	-	-	3	-	-	6	-	18
#073 IR Spectrometer Spacer	#073	Machine Shop	1	-	-	81	-	81
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 8 mm Long	-	-	3	-	-	4	-	12
TG-NIR C9406GC	-	Hamamatsu	1	\$9,100.00	\$9,100.00	276	-	276

Contact Part								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Slim Right-Angle Bracket with Counterbored Slot & M6 Tapped Holes	AB90C/M	Thorlabs	2	\$26.25	\$52.50	35	-	70
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 14 mm Long	-	-	4	-	-	5	-	20
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 35 mm Long	-	-	4	-	-	9	-	36
#051 Contact Plate Spacer 2	#051	Machine Shop	2	-	-	15	-	30
#053 Contact Plate 3	#053	Machine Shop	1	-	-	139	-	139
#052 Contact Pad 2	#052	Machine Shop	1	-	-	85	-	85
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 25 mm Long	-	-	3	-	-	7	-	21
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 55 mm Long	-	-	1	-	-	12	-	12
#063 Fixed Mirror Alignment	#063	Machine Shop	1	-	-	20	-	20
18-8 Stainless Steel Nylon-Insert Locknut, M6 x 1 mm Thread	-	-	1	-	-	2	-	2
18-8 Stainless Steel Wing Nut M6 x 1 mm Thread	-	-	1	-	-	6	-	6
18-8 Stainless Steel Washer for M6 Screw Size, 6.4 mm ID, 12 mm OD	-	-	1	-	-	1	-	1

Leg Part								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Slim Right-Angle Bracket with Counterbored Slot & M6 Tapped Holes	AB90C/M	Thorlabs	1	\$26.25	\$26.25	35	-	35
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 14 mm Long	-	-	2	-	-	5	-	10
Dovetail Rail Carrier, 1.00" x 1.00" (25.4 mm x 25.4 mm)	RC1	Thorlabs	2	\$14.60	\$29.20	24	-	48
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 10 mm Long	-	-	2	-	-	4	-	8
Dovetail Optical Rail, 75 mm, Metric	RLA075/M	Thorlabs	1	\$28.50	\$28.50	27	-	27
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 14 mm Long	-	-	2	-	-	5	-	10
#038 Leg Plate 2	#038	Machine Shop	1	-	-	242	-	242
#014 Leg Support	#014	Machine Shop	2	-	-	29	-	58
18-8 Stainless Steel Socket Head Screw M6 x 1 mm Thread, 20 mm Long	-	-	4	-	-	6	-	24
M6 Star Knob	-	-	2	-	-	7	-	14
M6 Bolt 65mm	-	-	2	-	-	13	-	26
18-8 Stainless Steel Nylon-Insert Locknut, M6 x 1 mm Thread	-	-	4	-	-	2	-	8
18-8 Stainless Steel Washer for 1/4" Screw Size, 0.281" ID, 0.625" OD	-	-	2	-	-	1	-	2
#015 Leg Pad	#015	Machine Shop	2	-	-	31	-	62

Case								
Item Description	Part #	Manufacture	Quantity	Price	Sub Total	Weight	Sub Total	
Pelican Air 1555 Case With Foam (Black)	#1555	Pelican	1	\$198.75	-	-	-	-