

					Total Cost		2244.5					
					or units of mass or leng \$/kg							
Purchase o	Electronic	System	Part of Asbmly	Part Name	# Parts Req	Link	Price/Pkg	Parts/Pkg	Pkgs to Orc	Cost of Par	Notes	Date Updated
\$	E	P	ActuatedBallValve	Servos for Ball Valves	4	<a href="https://www">https://www</a>	16.99	4	1	16.99	Torque of 14 Nm	5/18/2025
\$		P	ActuatedBallValve	Servo Horns	4	<a href="https://www">https://www</a>	8.69	2	2	17.38		12/6/2024
\$		P	ActuatedBallValve	Servo Horn Screws	4	<a href="https://www">https://www</a>	5.99	60	1	5.99		12/16/2024
\$		P	ActuatedBallValve	Servo Extension Cord Lead Wire Cable Connectors	4	<a href="https://www">https://www</a>	12.99	30	1	12.99		12/16/2024
\$		P	ActuatedBallValve	1/4" Pex Push Ball Valve	4	<a href="https://www">https://www</a>	8.85	10	1	8.85	Turning Resistance X Nm	12/6/2024
3DP		P	ActuatedBallValve	Valve Actuator Ball Valve Mounts	4	NA	0	1	4	0	3D Printed with PLA	12/6/2024
\$	E	P	Pressure Transducer	P/V Transducer, 1/8" NPT	2	<a href="https://www">https://www</a>	22.99	1	2	45.98		12/6/2024
\$		P	Piping	1/4" Pex Push Tee Fitting	2	<a href="https://www">https://www</a>	6.99	10	1	6.99	All Blue numbers altered s	5/17/2025
\$		P	Piping	1/4" OD PEX Pipe	1	<a href="https://www">https://www</a>	9.99	300	1	9.99		5/17/2025
\$		P	Piping	1/4" Pex Push Elbow 90	1	<a href="https://www">https://www</a>	6.99	10	1	6.99		12/17/2024
\$		P	Piping	1/4" PEX to 1/4" Male NPT	3	<a href="https://www">https://www</a>	6.99	5	1	6.99		2/6/2025
\$		P	Piping	1/4" FNPT Coupling	3	<a href="https://www">https://www</a>	7.99	5	1	7.99		12/6/2024
\$		P	Piping	1/4" PEX to 1/2" Male NPT	4	<a href="https://www">https://www</a>	7.49	10	1	7.49		5/17/2025
\$		P	Piping	1/4 Inch OD PVC Clear Vinyl Tubing	2	<a href="https://www">https://www</a>	7.79	20	1	7.79		5/17/2025
\$		P	Piping	1/4" MNPT to 1/4" Barb Fitting	2	<a href="https://www">https://www</a>	7.99	5	1	7.99		5/17/2025
\$		P	Piping	Check Valve	1	<a href="https://www">https://www</a>	10.99	6	1	10.99		12/17/2024
\$		P	Piping	Pressure Relief Valve	0	NA	0	1	0	0	Not Included In Current Di	12/16/2024
\$		P	Pressure Transducer	1/4" PEX to 1/8" FNPT	2	<a href="https://www">https://www</a>	9.99	5	1	9.99		12/16/2024
\$	E	P	Detergent Dosing	Peristaltic Dosing Pump	1	<a href="https://www">https://www</a>	9.89	1	1	9.89		12/17/2024
\$		P	Detergent Dosing	1/8 Inch Barb x 1/4 Inch NPT Barb Fitting	1	<a href="https://www">https://www</a>	8.99	6	1	8.99		12/17/2024
\$		P	Detergent Dosing	Peristaltic Tubing 3mm	1	<a href="https://www">https://www</a>	13.99	3	1	13.99		12/16/2024
\$		P	Detergent Dosing	Zip Ties	1	<a href="https://www">https://www</a>	15.99	1	1	15.99		5/17/2025
\$	E	P	Detergent Dosing	5/32" Barb Fitting Check Valve	2	<a href="https://www">https://www</a>	8.99	5	1	8.99		12/16/2024
\$		WC	Wash Chamber	4" SCH 40 PVC Pipe Clear	1	<a href="https://www">https://www</a>	38.6	1	1	38.6		12/17/2024
\$		WC	Wash Chamber	Wash Chamber Conduit	1	<a href="https://www">https://www</a>	67.99	1	1	67.99		1/27/2025
\$		WC	Wash Chamber	Castle Spacer	1	NA	0	1	1	0	Segment of Pipe Used Inst	12/20/2024
\$		WC	Wash Chamber	Conduit Static Seal O-Ring	2	<a href="https://www">https://www</a>	7.69	4	1	7.69		3/30/2025
\$		WC	Access Hatch	Access Hatch Plastic Stock	1	-	0	1	1	0		12/20/2024
\$		WC	Access Hatch	Access Hatch Lower O-Ring	1	<a href="https://www">https://www</a>	10.58	10	1	10.58		5/17/2025
\$		WC	Access Hatch	Access Hatch Lower O-Ring	1	<a href="https://www">https://www</a>	23.53	10	1	23.53		2/8/2025
\$		WC	Access Hatch	Mortice Latch 35mm	1	<a href="https://www">https://www</a>	8.35	1	1	8.35		2/8/2025
\$		WC	Wash Piston	1" Polyethylene Round Stock 4" Diameter	1	<a href="https://www">https://www</a>	70.98	1	1	70.98	Used for Lid,,Reservior, an	5/17/2025
\$		WC	Wash Piston	Wash Piston Dynamic Seals	2	<a href="https://www">https://www</a>	13.76	1	2	27.52		5/17/2025
\$		WC	Wash Piston	Wash Piston Rod	11.6	<a href="https://www">https://www</a>	27.5	12	1	27.5	0.875	5/17/2025
\$		WC	Wash Piston	Wash Piston Stay Pin	4	<a href="https://www">https://www</a>	5.99	12	1	5.99	.375" Rod, tapped at ends	2/11/2025
\$		WC	Wash Piston	Wash Piston Rod Static Seals	2	<a href="https://www">https://www</a>	5.98	100	1	5.98	.875 OD	5/17/2025
\$		WC	Reservior Piston	Reservior Piston Dynamic Seals	2	<a href="https://www">https://www</a>	13.76	1	2	27.52		2/11/2025
\$		WC	Reservior Piston	Reservior Piston Rod Dynamic Seals	2	<a href="https://www">https://www</a>	5.01	1	2	10.02	.875" ID	4/12/2025
\$		WC	Reservior Piston	Reservior Piston Shafts	4	<a href="https://www">https://www</a>	8.73	4	1	8.73		5/17/2025
\$		WC	Reservior Piston	Reservior Piston Springs	4			1	4	0	Experimentation Needed t	5/18/2025
\$		WC	Reservior Piston	1/2" Shaft Collar	8	<a href="https://www">https://www</a>	10.99	8	1	10.99		4/12/2025
\$		DA	Drive Nut	Set Screw Set M3-M8	1	<a href="https://www">https://www</a>	7.99	1	1	7.99	Used for other purposes	5/17/2025
\$		DA	Drive Nut	Drive Nut 1" Brass Machine Stock	4	<a href="https://www">https://www</a>	23.99	2	2	47.98		5/17/2025
\$		DA	Drive Nut	Grease Fittings	25	<a href="https://www">https://www</a>	8.99	4	7	62.93		5/17/2025
\$	E	DA	8mm	Drive Motor	2	<a href="https://www">https://www</a>	56.3	1	2	112.6		5/17/2025
\$	E	DA	8mm	Motor Controller	1	<a href="https://www">https://www</a>	24.99	2	1	24.99		5/17/2025
\$		DA	8mm	8mm Shaft Coupling	2	<a href="https://www">https://www</a>	8.99	2	1	8.99		5/17/2025
\$		DA	8mm	8mm Flanged Journal Bearings	4	<a href="https://www">https://www</a>	9.99	10	1	9.99		12/20/2024
\$		DA	8mm	11 Tooth Sprocket, 8mm Bore, for #25 Chain	2	<a href="https://www">https://www</a>	12.29	2	1	12.29		1/4/2025
\$		DA	8mm	8mm Drive Shaft	2	<a href="https://www">https://www</a>	8.19	2	1	8.19		12/20/2024
\$		DA		#25 Chain, 1/4" Pitch	8	<a href="https://www">https://www</a>	16.91	10	1	16.91	8 ft estimated needed	12/20/2024
\$		DA	1/2"	1/2" Flanged Journal Bearings	20	<a href="https://www">https://www</a>	12.88	10	2	25.76		12/20/2024
\$		DA	1/2"	25 Tooth Sprocket, 1/2" Bore, for #25 Chain	8	<a href="https://www">https://www</a>	9.99	2	4	39.96	4 to be machined so they c	5/18/2025
\$		DA	1/2"	1/2" ID Slim Bearings for Idlers	8	<a href="https://www">https://www</a>	12.49	10	1	12.49	To be inserted into Idlers a	1/4/2025
3DP		DA	1/2"	1/2" Shaft Spacer	0	-	0	1	0	0		1/4/2025
\$		DA	6mm	#25 Tensioner Sprocket, 6mm Bore	2	<a href="https://www">https://www</a>	17.59	2	1	17.59		12/20/2024
\$		DA	6mm	6mm Shaft	2	<a href="https://www">https://www</a>	6.69	2	1	6.69		12/20/2024
\$	Fab	DA	6mm	Adjustment Screw For Tensioner	4	Missing	0	1	4	0		5/18/2025
\$		DA	6mm	#25 Tensioner Bracket	2	NA	0	1	2	0		5/18/2025
3DP		DA	6mm	6mm Shaft Spacer	4	NA	0	1	4	0		12/20/2024
\$		DA	FOut	ACME Threaded Rod 1/2" - 10 (3 ft)	2	<a href="https://www">https://www</a>	13.63	1	2	27.26		1/4/2025
\$	E	DA	FOut	HX711 Load Cell Amplifier	4	<a href="https://www">https://www</a>	8.29	6	1	8.29		12/20/2024
\$		DA	FOut	1000 kg Load Cell	4	<a href="https://www">https://www</a>	60.97	1	4	243.88		12/20/2024
\$		DA	FOut	Load Cell Mounting Screws	32	<a href="https://www">https://www</a>	9.69	50	1	9.69		5/17/2025
\$		DA	FOut	M5 Mounting Nuts for Load Cell	32	<a href="https://www">https://www</a>	6.99	100	1	6.99		5/17/2025
\$		DA	FOut	1/2" Thrust Bearing	8	<a href="https://www">https://www</a>	9.99	5	2	19.98		12/20/2024
\$		DA	FOut	1/2" ACME Nut	8	<a href="https://www">https://www</a>	3.3	1	8	26.4		2/11/2025
\$	E	DA	Sensing	Limit Switches	1	<a href="https://www">https://www</a>	7.99	10	1	7.99	Used for Safety System an	5/17/2025
3DP		DA	Sensing	Limit Switch Mount	4	N/A	0	4	1	0		5/17/2025
3DP		DA	Sensing	Optical Rotary Encoder Bracket	2	N/A	0	2	1	0		5/17/2025
\$		DA	Sensing	8mm to 6mm Flex Coupling for Optical Encoder	2	<a href="https://www">https://www</a>	8.39	2	1	8.39		1/4/2025
\$	E	DA	Sensing	Optical Rotary Encoder	2	<a href="https://www">https://www</a>	18.99	1	2	37.98		5/18/2025
\$		DA	Drive Frame Base	M3 Bearing Holding Screws	100	<a href="https://www">https://www</a>	5.59	100	1	5.59		5/17/2025
\$		F	Drive Frame Base	1/4" - 20 All Threaded Rod	16	<a href="https://www">https://www</a>	9.99	4	4	39.96		5/17/2025
\$		F	Drive Frame Base	1/4" - 20 Nuts	16	<a href="https://www">https://www</a>	6.85	50	1	6.85		5/17/2025
\$		F	Drive Frame Base	1/4" ID Rod Spacer	8	<a href="https://www">https://www</a>	31.18	10	1	31.18		5/17/2025
\$		F	Shear Frame	M3.5 Chain Link for Wire Rope	1	<a href="https://www">https://www</a>	6.99	8	1	6.99		5/18/2025
\$		F	Shear Frame	M5 Turnbuckle	4	<a href="https://www">https://www</a>	8.49	2	2	16.98		5/17/2025
\$		F	Shear Frame	Wire Rope Fixtures	1	<a href="https://www">https://www</a>	13.99	1	1	13.99		5/17/2025
\$		F	Shear Frame	Structural Wire Rope	1	<a href="https://www">https://www</a>	26.99	100	1	26.99		5/17/2025
\$		F	Electrical Mounting	24"x36" Aluminum Sheet .020"	1	<a href="https://www">https://www</a>	28.9	1	1	28.9		5/17/2025
\$		F	Frame Plate	1/8" .125" Hot Rolled Steel Sheet Plate 12"x24"	1	<a href="https://www">https://www</a>	40	1	1	40		5/17/2025
\$		F	Frame Plate	A36 Mild Steel, 1/4" x 12" x 24" Hot Rolled Steel	5	<a href="https://www">https://www</a>	22	1	5	110		5/17/2025
\$	E	EC		Ammeter INA219 I2C Interface Bidirectional DC Current/Power M	1	<a href="https://www">https://www</a>	12.99	5	1	12.99	Not Used In Current Desig	5/18/2025
\$	E	EC		E-Stop	1	<a href="https://www">https://www</a>	9.99	1	1	9.99		5/18/2025
\$	E	EC		Crimped Wire Connectors	1	<a href="https://www">https://www</a>	16.99	1	1	16.99		5/17/2025
\$	E	EC		WAGO Connectors	1	<a href="https://www">https://www</a>	36.95	1	1	36.95		5/18/2025
\$	E	EC		Screw Terminal Block Connector Kit	1	<a href="https://www">https://www</a>	13.99	1	1	13.99		5/17/2025
\$	E	EC		Screw Terminal Block Connector 8x	1	<a href="https://www">https://www</a>	7.99	1	1	7.99		5/17/2025
\$	E	EC		Screw Terminal Block Connector 12x	1	<a href="https://www">https://www</a>	9.99	1	1	9.99		5/17/2025

\$	E	EC	PCB Male Header Pin Strip	1	<a href="https://www">https://www</a>	4.99	1	1	4.99		5/17/2025
\$		EC	Standoff Kit	1	<a href="https://www">https://www</a>	18.98	1	1	18.98		5/18/2025
\$	E	EC	Protoboards	1	<a href="https://www">https://www</a>	9.99	1	1	9.99		5/17/2025
\$		EC	Self Tapping Mounting Screws	1	<a href="https://www">https://www</a>	9.29	1	1	9.29		5/18/2025
\$	E	EC	Arduino Nano	1	<a href="https://www">https://www</a>	15.99	1	1	15.99		5/17/2025
\$	E	EC	Motor Control Reverse Rotation Preventer Diode for Motor	4	<a href="https://www">https://www</a>	6.99	20	1	6.99		5/17/2025
\$	E	EC	Motor Control 3.3V 8 Channel Relay	1	<a href="https://www">https://www</a>	18	1	1	18	For Motor Control and E-S	5/18/2025
\$	E	EC	E Hardware Step Down Buck Converter	1	<a href="https://www">https://www</a>	8.99	1	1	8.99		5/18/2025
\$	E	EC	E Hardware 24V-3.3V Step Down Buck Converter	1	<a href="https://www">https://www</a>	15.59	1	1	15.59	possible to not be needed	5/17/2025
\$	E	EC	Fuse Block Recepticle	1	<a href="https://www">https://www</a>	12.99	1	1	12.99		5/17/2025
\$	E	EC	Automotive Fuse Assortment	1	<a href="https://www">https://www</a>	10.99	1	1	10.99		5/17/2025
\$	E	EC	ESP32 Breakout Board	1	<a href="https://www">https://www</a>	11.99	1	1	11.99		5/17/2025
\$	E	EC	UI/Microcontroller Raspberry Pi 4 Model B	1	<a href="https://www">https://www</a>	70.5	1	1	70.5		5/18/2025
\$	E	EC	UI/Microcontroller Raspberry Pi Heat Sink and Fan	1	<a href="https://www">https://www</a>	8.98	1	1	8.98		12/17/2024
\$	E	EC	UI/Microcontroller Touch Screen Display	1	<a href="https://www">https://www</a>	33.92	1	1	33.92	4.3 inch IPS LCD Capacit	12/16/2024
\$	E	EC	UI/Microcontroller ESP32 Dev Board	1	<a href="https://www">https://www</a>	15.99	3	1	15.99		12/17/2024
\$	E	EC	Electrical Mounting Din Rail Mounts		NA	0	1	0	0	<a href="https://www.printables.cc">https://www.printables.cc</a>	5/17/2025
\$	E	EC	Electrical Mounting DIN Rail Slotted Aluminum RoHS 8" Inches Long 35mm Wide 7.5mm	1	<a href="https://www">https://www</a>	16.99	10	1	16.99		5/17/2025
\$		EC	Electrical Mounting Self Tapping Mounting Screws for Din Rails	1	<a href="https://www">https://www</a>	5.99	1	1	5.99		5/18/2025
\$	E	EC	Electrical Mounting Screw Terminal DIN Rail Mount	1	<a href="https://www">https://www</a>	22.99	1	1	22.99		12/17/2024
\$	E	EC	22 AWG Solid Core Wire	1	<a href="https://www">https://www</a>	15.19	1	1	15.19		12/17/2024
\$	E	EC	22 AWG Stranded Wire	1	<a href="https://www">https://www</a>	9.49	1	1	9.49		12/17/2024
\$	E	EC	Power Supply AC Phase Power Cable	1	<a href="https://www">https://www</a>	3.99	1	1	3.99	AC Power not needed for it	1/6/2025
\$	E	EC	Power Supply AC Power switch with fuze and plug	1	<a href="https://www">https://www</a>	7.99	1	1	7.99		1/6/2025
\$	E	EC	Power Supply 5V, 12V, 24V DC Power Supply	1	<a href="https://www">https://www</a>	23.99	1	1	23.99		1/6/2025
\$		C	3D Printing Filament (PLA)	1	<a href="https://www">https://www</a>	13.99	1	1	13.99		5/18/2025
\$		C	Solder	1		0	1	1	0		5/18/2025