



Horizontal Travel Robot Arm - HTA0

Section	Component	Type	Size	Qty	Kit	Notes
3d print	Camera Holder				3D Part Kit	
3d print	Helper				3D Part Kit	
3d print	Idler				3D Part Kit	
3d print	Nema Holder				3D Part Kit	
3d print	Grip				3D Part Kit	
3d print	Arms				3D Part Kit	
3d print	Base				3D Part Kit	
3d print	Servo Holder				3D Part Kit	
Arm	Screw	M2	8mm	2	Bolt Kit	
Arm	Screw	M2	6mm	1	Bolt Kit	
Arm	Nut	M2	Nut	3	Bolt Kit	
Arm	Rod	3mm Diameter	39mm	2	3D Part Kit	
Arm	Screw	M3	30mm	1	Bolt Kit	
Arm	Screw	M3	20mm	3	Bolt Kit	
Arm	Screw	M3	16mm	2	Bolt Kit	
Arm	Screw	M3	12mm	1	Bolt Kit	
Arm	Locking Nut	M3	Nylon Locking Nut	7	Bolt Kit	
Arm	Bearings	MR63ZZ / L-630 / 673ZZ	3x6x2.5 mm	14	3D Part Kit	
Bearings	Screw	M4	10mm	8	Bolt Kit	Can use 14mm M4s with a 4mm plastic spacer
Bearings	Washer	M4	Washer	8	Bolt Kit	Can use 14mm M4s with a 4mm plastic spacer
Bearings	Linear Bearings	SC8UU	Slide Block	2	N/A	
Body/Frame	Screw	M3	8mm	12	Bolt Kit	
Body/Frame	Washer	M3	Washer	12	Bolt Kit	
Body/Frame	T-Nut	M3	T-Nut 6mm Profile	12	Bolt Kit	
Body/Frame	T-Slot 2020	Aluminum T-Slot	100mm	2	3D Part Kit	120mm will give you more room
Camera	Screw	M3	10mm	3	Bolt Kit	
Camera	T-Nut	M3	T-Nut 6mm Profile	1	Bolt Kit	
Camera	Nut	M3	Nut	2	Bolt Kit	
Camera	Screw	M3	20mm	1	Bolt Kit	
Camera	Locking Nut	M3	Nylon Locking Nut	1	Bolt Kit	
Carriage Movement	GT2 Timing Belt		Based on Desired travel	1	N/A	
Carriage Movement	Timing Pulley		20 Teeth, 5 mm bore	1	N/A	
Carriage Movement	Idler		Toothless, 5 mm bore	1	N/A	
Carriage Movement	Screw	M3	12mm	4	Bolt Kit	Nema & Idler Mount to frame
Carriage Movement	Screw	M3	30mm	1	Bolt Kit	Idler axle
Carriage Movement	Screw	M3	8mm	4	Bolt Kit	Nema motor fasteners
Carriage Movement	T-Nut	M3	T-Nut 6mm Profile	4	Bolt Kit	Nema & Idler Mount to frame
Carriage Movement	Nut	M3	Nut	1	Bolt Kit	Idler axle
Carriage Movement	Screw	M2	6mm	2	Bolt Kit	For Belt Grip
Carriage Movement	Nut	M2	Nut	2	Bolt Kit	For Belt Grip
Electronics	Stepper Driver	A4988		1	N/A	
Electronics	Voltage Converger	LM2596	3.0-40V to 1.5-35V	2	N/A	
Electronics	Servo	LewanSoul LD-20MG	20kg per cm, 180 degrees	2	Servo Kit	
Electronics	Micro-Servo	TowerPor SG92R		1	Servo Kit	
Electronics	Arduino	Mega 2560		1	N/A	
Electronics	Raspberry Pi 3 B+			1	N/A	
Electronics	Breadboard & Cables			n/a	N/A	
Electronics	Power Supply	EVGA 400 N1		1	N/A	
Electronics	Stepper Motor	Nema 17 Stepper Motor	26Ncm(36.8oz.in) 12V 0.4A	1	N/A	
Frame	T-Slot 20 x 20		1 Meter	2	N/A	
Frame	T-Slot 20 x 20		0.5 Meter	9	N/A	
Frame	L-Shape Corner Connector			10	N/A	I recommend more stable joints, possibly 3d printed or braces.
Frame	Corner Bracket	Right Angle 20Series	6mm Bracket	4	N/A	I recommend more stable joints, possibly 3d printed or braces.
Frame	Screw	M4	10mm	8	N/A	
Frame	Washer	M4	Washer	8	N/A	
Frame	T-Nut	M4	T-Nut 6mm Profile	8	N/A	
Grip	Screw	M2	6mm	2	Bolt Kit	
Grip	Nut	M2	Nut	2	Bolt Kit	
Grip	Screw	M3	12mm	7	Bolt Kit	
Grip	Locking Nut	M3	Nylon Locking Nut	7	Bolt Kit	
Grip Servo	Screw	Horn Screw		1	Servo Kit	Can be replaced by Horn Fastener
Grip Servo	Washer	Horn Washer	Washer	1	Servo Kit	Can be replaced by Horn Fastener
Rods	8mm Diamater Rods		Based on Desired travel	2	N/A	
Rods	8mm diameter Fastener	SK8	Based on Desired travel	1	N/A	
Servos	Screw	M3	6mm	2	Servo Kit	Can be replaced by Horn Fastener
Servos	Screw	M4	14mm	4	Bolt Kit	
Servos	Washer	M4	Washer	4	Bolt Kit	
Servos	Nut	M4	Nut	4	Bolt Kit	