

Screws and nuts:				
	diameter , length	quantity	Description	Link
M4x10mm		20	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x8mm		10	2 mm head height	
M3x8mm		50	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x14mm		30	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3 nut		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x25mm		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M2x10mm		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x16mm		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x6mm		10	Pan head philips	
M3x12mm		30	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x35mm		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M4x16mm		30	DIN 912 / ISO 4762 (hexagon socket head cap)	
M4x14mm		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M4x50mm		10	DIN 912 / ISO 4762 (hexagon socket head cap)	
M3x15mm		2	Tapered screw head	
Gearboxes:				
Name in building instructions	Type	quantity	Description	Link
For cheaper gearbox options you can use MG series planetary gearboxes. They have bigger backlash but are cheaper.				
Gearbox 20:1	Nema 17 20:1 EG precision planetary	2	Link	Aliexpress Link
Gearbox 10:1	Nema 17 10:1 EG precision planetary	1	Link	Aliexpress Link
Motors:				
Name in building instructions	Type	quantity	Description	Link
Stepper 1	Nema 17 16Ncm,42x42x20mm	1	Link	Aliexpress Link
Stepper 2	Nema 17 45Ncm,42x42x40mm	3	Link	Aliexpress Link
Stepper 3	Nema 17 65Ncm,42x42x60mm	2	Link	Aliexpress Link
Belts:				
Name in building instructions	Type	quantity	Description	Link
Joint 1 belt	HTD3 396	1	6 mm width	Link
Joint 3 belt	HTD3 342	1	6 mm width	Link
Joint 4 belt	HTD3 201	1	6 mm width	Link
Joint 5 belt	HTD3 246	1	6 mm width	Link
Pulleys:				
Name in building instructions	Type	quantity	Description	Link
J4 pulley, J5 pulley	HTD3M 12 tooth 5mm bore 10mm width	2		Link
J1 pulley	HTD3M 15 tooth 5mm bore 10mm width	1		Link
Mechanical stuff:				
Name in building instructions	Type	quantity	Description	Link
Shaft coupler	Shaft coupler	3	8 mm hole shaft, M4 screw holes	Link
Bearings:				
Name in building instructions	Type	quantity	Description	Link
Bearing 1	AXK3552	1	35X52X4, needs to have top and bottom plate	Link
Bearing 2	NSK HR32906J	5	Joint 5, 4 and 3	Link
Bearing 3	NSK HR32907J	4	Joint 1 and 2	Link
Tension bearing	Ball bearing 3x8x4	20	Used for belt tension	Link
Tension bearing	Ball bearing 3x10x4	20	Used for belt tension	Link
Electronics:				
Name in building instructions	Type	quantity	Description	Link

	PAROL control board	1	source-robotics.com	Link
	TMC5160	6	Drivers from the links are tested. Use any other at own risk: Link1	Link2
	Thermal paste	2	Needed only if your control board has no drivers!	Link
	On/Off button	1	12mm 3-6V	Link
	JST PH 2.0mm 200mm 4PIN	1	For power button	Link
	Noctua NF-A4x20 5V 40mm	1		
	Power connector - male + female	1	GX16 2PIN	Link
	Gripper connector (electric)	1	M8 sensor Female 4 pin	Link
	Power supply	1	Any 24V 5A supply	Link
	Limit switches	3	Type ZW12-3	Link
	Inductive sensor 1	1	4mm NPN NO - alternative link	Link
	Inductive sensor 2	1	GX-F8A	Link
	Inductive sensor 3	1	M5_ NPN NO - alternative link	Link
	Estop	1	Any NC estop	Link
	Cable gland for estop	1	PG7 type	Link
	M3 brass insert	4	M3, 6mm lenght	Link
	Pneumatic connector - robot	4	4 mm type PM	Link
	Pneumatic Gripper	1	MHZ2-16D	Link
	Pneumatic gripper connector	2	PC4 - M5	Link
	Pneumatic tube	5 meters	1 meter, 4x2.5mm	Link
	xt30 connector female	1	used to deliver power to PAROL6 PCB	Link
	Stlink	1	Use link! Pin order needs to be: SWCLK,SWDIO,GND,3V3,5V	Link
	USB B cable	1	Comms to the PC	
	5/2 solenoid air valve	1	4mm tube connectors, 5/2, 24V	Link
Vacuum gripper				
Name in building instructions	Type	quantity	Description	Link
	Suction cup gripper	1		Link
	Vacuum generator	1		Link
	4mm to 6mm coupler	1		Link