

**This file contains all the parts you need to build PAROL6 robot!**  
**Most items have links where you can buy the item, and some of them are affiliate links.**  
**Items like screws, belts and bearings can be bought locally or from many other vendors.**

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 phillips	
	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
Gearbox 20:1	Nema 17 20:1 EG precision planetary	2	<a href="#">Link</a>	<a href="#">Link</a>
Gearbox 10:1	Nema 17 10:1 EG precision planetary	1	<a href="#">Link</a>	<a href="#">Link</a>
Motors:				
Name in building instructions	Type	quantity	Description	Link
Stepper 1	Nema 17 16Ncm,42x42x20mm	1	<a href="#">Link</a>	<a href="#">Link</a>
Stepper 2	Nema 17 45Ncm,42x42x40mm	3	<a href="#">Link</a>	<a href="#">Link</a>
Stepper 3	Nema 17 65Ncm,42x42x60mm	2	<a href="#">Link</a>	<a href="#">Link</a>
Belts:				
Name in building instructions	Type	quantity	Description	Link
Joint 1 belt	HTD3 396	1	6 mm width	
Joint 3 belt	HTD3 342	1	6 mm width	<a href="#">Link</a>
Joint 4 belt	HTD3 201	1	6 mm width	<a href="#">Link</a>
Joint 5 belt	HTD3 246	1	6 mm width	<a href="#">Link</a>
Pulleys:				
Name in building instructions	Type	quantity	Description	Link
J4 pulley, J5 pulley	HTD3M 12 tooth 5mm bore 10mm width	2		<a href="#">Link</a>
J1 pulley	HTD3M 15 tooth 5mm bore 10mm width	1		<a href="#">Link</a>
Mechanical stuff:				
Name in building instructions	Type	quantity	Description	Link
Shaft coupler	Shaft coupler	3	8 mm hole shaft, M4 screw holes	<a href="#">Link</a>
Bearings:				
Name in building instructions	Type	quantity	Description	Link
Bearing 1	AXK3552	1	35X52X4, needs to have top and bottom plate	<a href="#">Link</a>
Bearing 2	NSK HR32906J	5	Joint 5, 4 and 3	<a href="#">Link</a>
Bearing 3	NSK HR32907J	4	Joint 1 and 2	<a href="#">Link</a>
Tension bearing	Ball bearing 3x8x4	20	Used for belt tension	<a href="#">Link</a>
Tension bearing	Ball bearing 3x10x4	20	Used for belt tension	<a href="#">Link</a>
Electronics:				
Name in building instructions	Type	quantity	Description	Link
	PAROL control board	1	<a href="#">source-robotics.com</a>	<a href="#">Link</a>
	On/Off button	1	12mm 3-6V	<a href="#">Link</a>
	JST PH 2.0mm 200mm 4PIN	1	For power button	<a href="#">Link</a>
	Noctua NF-A4x20 5V 40mm	1		
	Power connector - male + female	1	GX16 2PIN	<a href="#">Link</a>
	Gripper connector (electric)	1	M8 sensor Female 4 pin	<a href="#">Link</a>
	Power supply	1	Any 24V 5A supply	<a href="#">Link</a>
	Limit switches	3	Type ZW12-3	<a href="#">Link</a>
	Inductive sensor 1	1	4mm NPN NO	<a href="#">Link</a>
	Inductive sensor 2	1	GX-F8A	<a href="#">Link</a>
	Inductive sensor 3	1	M5, NPN NO	<a href="#">Link</a>
	Estop	1	Any NC estop	<a href="#">Link</a>
	Pneumatic connector - robot	4	4 mm type PM	<a href="#">Link</a>
	Pneumatic Gripper	1	MHZ2-16D	<a href="#">Link</a>
	Pneumatic gripper connector	2	PC4 - M5	<a href="#">Link</a>
	Pneumatic tube	5 meters	1 meter, 4x2.5mm	<a href="#">Link</a>
	xt30 connector female	1	used to deliver power to PAROL6 PCB	<a href="#">Link</a>
	Stlink	1	Used to program PAROL6 control board	
	USB B cable	1	Comms to the PC	
	5/2 solenoid air valve	1	4mm tube connectors, 5/2, 24V	<a href="#">Link</a>