

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 Link	Link
Gearbox 10:1	Nema 17 10:1 EG precision planetary		1 Link	Link
Motors:				
Name in building instructions	Type	quantity	Description	Link
Stepper 1	Nema 17 16Ncm,42x42x20mm		1 Link	Link
Stepper 2	Nema 17 45Ncm,42x42x40mm		3 Link	Link
Stepper 3	Nema 17 65Ncm,42x42x60mm		2 Link	Link
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	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
			6 Needed only if your control board has no drivers! YOU NEED EXACTLY THESE DRIVERS! Any other will destroy your control board!	Link
	TMC5160		2 Needed only if your control board has no drivers!	Link
	Thermal paste		1 12mm 3-6V	Link
	On/Off button		1 For power button	Link
	JST PH 2.0mm 200mm 4PIN		1	
	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	Link
	Inductive sensor 2		1 GX-F8A	Link
	Inductive sensor 3		1 M5, NPN NO	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
	x130 connector female		1 used to deliver power to PAROL6 PCB	Link
	Stlink		1 Use link! Pin order needs to be: SWCLK,SWDIO,GN	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