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**
For cheaper gearbox options you can use MG series planetary gearboxes. They have bigger backlash but are cheaper.			**Link**	**Aliexpress Link**
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