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.

Store and miles   Control   Contro						
Materials		Screws and nuts:				
Michan   Sp.   S		diameter , length	quantity	Description	Link	Alternative links
Marie		M4x10mm	20	DIN 912 / ISO 4762 (hexagon socket head cap)		
Marie   Mari		M3x8mm	10	2 mm head height		
Month   10   Description		M3x8mm	50	DIN 912 / ISO 4762 (hexagon socket head cap)		
MACHEMIN   10   Description   1   Machemin   1   Machemin   10   Description   1   Machemin   1   Ma		M3x14mm	30	DIN 912 / ISO 4762 (hexagon socket head cap)		
MA-10mm		M3 nut	10	DIN 912 / ISO 4762 (hexagon socket head cap)		
Machine   10		M3x25mm	10	DIN 912 / ISO 4762 (hexagon socket head cap)		
MAINTONN   10   Part to per principal   MAINTONN   10   MAIN		M2x10mm	10	DIN 912 / ISO 4762 (hexagon socket head cap)		
Modern   50		M3x16mm	10	DIN 912 / ISO 4762 (hexagon socket head cap)		
MAXISTERN   19		M3x6mm	10	Pan head phillips		
Marstern   10		M3x12mm	30	DIN 912 / ISO 4762 (hexagon socket head cap)		
Marcin   MacSon   19		M3x35mm	10	DIN 912 / ISO 4762 (hexagon socket head cap)		
MASSISSION   10   10   10   10   10   10   10   1		M4x16mm	30	DIN 912 / ISO 4762 (hexagon socket head cap)		
MACROTON   1		M4x14mm	10	DIN 912 / ISO 4762 (hexagon socket head cap)		
Mann in building instructions		M4x50mm	10			
Mane in building instructions		M3x15mm	2			
Mane in building instructions				· · · · · · · · · · · · · · · · · · ·		
Name in building instructions				-		these gearboxes have bigger backslash and in turn your robot will be less precise if you use them)
Name in building instructions						
Name in building instructions   Type   Causality   Link	Gearbox 10:1		1	Link	Link	Link
Stopper   Nems 17 16Non, 324-26Dorn   1						
Sepre 2			-	•		
Nema   Technological   Nema   Technological   Nema   Technological   Nema   Technological   Nema   Technological   Nema						
Name in building instructions						
Name in building instructions   Type   Quantity   Description   Link	Stepper 3		2	Link	Link	
Joint   Self						
Joint 3 bet	· ·	1		Para Para		
Joint 4 bett						
Mane in building instructions   Type   Quantity   Description   Link	Joint 3 belt	HTD3 342	1	6 mm width	<u>Link</u>	
Name in building instructions  Type quantity  Ja pulley, 35 pulley  HTD3M 12 both Serm bore 10mm width  Mechanical stuff:  Name in building instructions  Type quantity  Name in building instructions  Type quantity  Name in building instructions  Type quantity  Bearings:  Name in building instructions  Type quantity  Bearings:  AXX3552 11 33X52X4. needs to have top and bottom pale:  Link  Bearing 2 NSK HR32907.0 5 Joint 5.4 and 3 Link  Bearing 3 NSK HR32907.0 5 Joint 6.4 and 3 Link  Bearing 3 NSK HR32907.0 4 Joint 1 and 2 Link  Bearing 3 NSK HR32907.0 4 Joint 1 and 2 Link  Tension bearing  Bail bearing 3x8x4 20 Used for belt trension  Link  Type quantity  PRACC control board  Bearing 3 NSK HR32907.0 4 Link and the service of the ser	Joint 4 belt	HTD3 201	1	6 mm width	<u>Link</u>	
Name in building instructions	Joint 5 belt	HTD3 246	1	6 mm width	<u>Link</u>	
HTDM 12 both 5mm bore 16mm width   2		Pulleys:				
HTD3M 15 both Sem bore 10mm width   1	Name in building instructions	Туре	quantity	Description	Link	
Name in building instructions	J4 pulley, J5 pulley	HTD3M 12 tooth 5mm bore 10mm width	2		<u>Link</u>	
Name in building instructions	J1 pulley	HTD3M 15 tooth 5mm bore 10mm width	1		Link	
Shaft coupler		Mechanical stuff:				
Name in building instructions	Name in building instructions	Туре	quantity	Description	Link	
Name in building instructions	Shaft coupler	·	3	8 mm hole shaft, M4 screw holes	<u>Link</u>	
Bearing 1						
Bearing 2	-			·		
Bearing 3	Bearing 1			35X52X4, needs to have top and bottom plate	<u>Link</u>	
Tension bearing	Bearing 2	NSK HR32906J	5	Joint 5, 4 and 3	<u>Link</u>	
Tension bearing   Ball bearing 3x10x4   20   Used for belt tension   Link	Bearing 3	NSK HR32907J	4	Joint 1 and 2	<u>Link</u>	
	Tension bearing	Ball bearing 3x8x4	20	Used for belt tension	<u>Link</u>	
Name in building instructions	Tension bearing	Ball bearing 3x10x4	20	Used for belt tension	Link	
PAROL control board		Electronics:				
TMC5160	Name in building instructions	Туре	quantity	Description	Link	
TMC5160		PAROL control board	1	source-robotics.com	Link	
Thermal CEMENT   2   Needed only if your control board has no drivers!   Link		TMC5160	6		Link2	
On/Off button   1						
JST PH 2.0mm 200mm 4PIN   1   For power button   Link						
Noctua NF-A4x20 5V 40mm						
Power connector - male + female   1				i oi powei buttori	LIIIK	
Gripper connector (electric)   1   M8 sensor Female 4 pin   Link				CY16 2DIN	Link	
Power supply   1						
Limit switches   3   Type ZW12-3   Limit						
Inductive sensor 1						
Inductive sensor 2						
Inductive sensor 3			-			
Estop 19mm			1 1			
Cable gland for estop   1	T.		-			
M3 brass insert		Inductive sensor 3				
Pneumatic connector - robot   4   4 mm type PM   Link		Inductive sensor 3 Estop 19mm	1	Any NC estop	<u>Link</u>	
Pneumatic Gripper   1   MHZ2-16D   Link		Inductive sensor 3 Estop 19mm Cable gland for estop	1	Any NC estop PG7 type	<u>Link</u> <u>Link</u>	
Pneumatic gripper connector   2   PC4 - M5   Link		Inductive sensor 3 Estop 19mm Cable gland for estop M3 brass insert	1 1 4	Any NC estop PG7 type M3, 6mm lenght	Link Link Link	
Pneumatic tube   5 meters   1 meter, 4x2.5mm   Link		Inductive sensor 3 Estop 19mm Cable gland for estop M3 brass insert Pneumatic connector - robot	1 1 4 4	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM	Link Link Link Link 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         Link		Inductive sensor 3 Estop 19mm Cable gland for estop M3 brass insert Pneumatic connector - robot Pneumatic Gripper	1 1 4 4 1	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM MHZ2-16D	Link Link Link Link Link Link	
Stlink         1         Use link! Pin order needs to be: SWCLK,SWDIO,GND,3V3,5V         Link           USB B cable         1         Comms to the PC		Inductive sensor 3  Estop 19mm Cable gland for estop M3 brass insert Pneumatic connector - robot Pneumatic Gripper Pneumatic gripper connector	1 1 4 4 1 2	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM MH22-16D PC4 - M5	Link Link Link Link Link Link Link Link	
USB B cable 1 Comms to the PC		Inductive sensor 3 Estop 19mm Cable gland for estop M3 brass insert Pneumatic connector - robot Pneumatic Gripper Pneumatic gripper connector Pneumatic tube	1 1 4 4 1 2 5 meters	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM MHZ2-16D PC4 - M5 1 meter, 4x2.5mm	Link Link Link Link Link Link Link Link	
		Inductive sensor 3 Estop 19mm Cable gland for estop M3 brass insert Pneumatic connector - robot Pneumatic Gripper Pneumatic gripper connector Pneumatic tube xt30 connector female	1	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM MHZ2-16D PC4 - M5 1 meter, 4x2.5mm used to deliver power to PAROL6 PCB	Link Link Link Link Link Link Link Link	
5/2 solenoid air valve 1 4mm tube connectors, 5/2, 24V Link		Inductive sensor 3 Estop 19mm Cable gland for estop M3 brass insert Pneumatic connector - robot Pneumatic Gripper Pneumatic gripper connector Pneumatic tube xt30 connector female Stlink	1 1 4 4 1 2 5 meters 1	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM MHZ2-16D PC4 - M5 1 meter, 4x2.5mm used to deliver power to PAROL6 PCB Use link! Pin order needs to be: SWCLK,SWDIO,GND,3V3,5V	Link Link Link Link Link Link Link Link	
		Inductive sensor 3  Estop 19mm  Cable gland for estop  M3 brass insert  Pneumatic connector - robot  Pneumatic Gripper  Pneumatic gripper connector  Pneumatic tube  xt30 connector female  Stlink  USB B cable	1 1 4 4 1 2 5 meters 1 1	Any NC estop PG7 type M3, 6mm lenght 4 mm type PM MHZ2-16D PC4 - M5 1 meter, 4x2.5mm used to deliver power to PAROL6 PCB Use link! Pin order needs to be: SWCLK,SWDIO,GND,3V3,5V Comms to the PC	Link Link Link Link Link Link Link Link	

Vacuum gripper				
Туре	quantity	Description	Link	
Suction cup gripper	1		<u>Link</u>	
Vacuum generator	1		<u>Link</u>	
4mm to 6mm coupler	1		<u>Link</u>	
	Type Suction cup gripper Vacuum generator	Type quantity Suction cup gripper 1 Vacuum generator 1	Type quantity Description  Suction cup gripper 1  Vacuum generator 1	Type         quantity         Description         Link           Suction cup gripper         1         Link           Vacuum generator         1         Link