

Parts list

No	Item name	Qty	Types	Manufacturer	Model number	Supplier	Notes	Link	
								Worldwide	Japan onry
1	Armor Joint L_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
2	Armor Joint R_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
3	Battery_Case _3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
4	Battery_Stopper_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
5	Blade base C_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
6	Blade base L_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
7	Blade base R_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
8	Inner_C_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
9	Inner_LB_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
10	Inner_LF_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
11	Inner_RB_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
12	Inner_RF_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
13	Inner_T_Basic	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
14	Lever_L_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
15	Lever_R_3DP	1	3DP	N/A	N/A	N/A	ABS or PETG	-	-
16	Rear Cover_3DP_Multicolor	1	3DP	N/A	N/A	N/A	ABS or PETG, Multicolor	-	-
17	Rim_3DP	2	3DP	N/A	N/A	N/A	ABS or PETG	-	-
18	Spacer Large_3DP	2	3DP	N/A	N/A	N/A	ABS or PETG	-	-
19	Spacer wheel_3DP	2	3DP	N/A	N/A	N/A	ABS or PETG	-	-
20	Top_Cover_3DP_Multicolor	1	3DP	N/A	N/A	N/A	ABS or PETG, Multicolor	-	-
21	LiPo Battery 2S 450mAh	1	Battery	N/A	N/A	N/A	with JST Conector	-	https://amzn.asia/d/detiRPP
22	LiPo Battery 4S 2200mAh	1	Battery	Zeee	N/A	Zeee		zeee	https://amzn.asia/d/7aD7q4U
23	DDL-1050ZZ	4	Bearing	NMB	DDL-1050ZZ	MonotaRO	DDL1050ZZ	-	DDL1050
24	DDL-1150ZZ	4	Bearing	NMB	DDL-1150ZZY04	MonotaRO	DDL1150ZZ	-	DDL1150ZZ
25	DDR-1650HH	4	Bearing	NMB	DDR-1650HH	MonotaRO	DDR-1650HH(625ZZ)	-	DDR-1650HH
26	DDR-1950ZZ	2	Bearing	NMB	DDR-1950ZZ	MonotaRO	DDR-1950ZZ(635ZZ)	-	DDR-1950ZZ
27	No5 blade_200x23x2	1	Blade	N/A	817	sumozade		sumozade	-
28	No5 blade_200x23x2(Second hand)	4	Blade	N/A	N/A	N/A	Used No5 blade	-	-
29	Flat head screw_M2.6L10 No.0 Type 1	19	Bolts/Nuts	N/A	M2.6×10.0	MonotaRO	JIS Cross Head,D:4.5mm,L:10mm	-	monotaro
30	Flat head screw_M2.6L5 No.0 Type 3	7	Bolts/Nuts	N/A	M2.6×5.0	MonotaRO	JIS Cross Head,D:4.5mm,L:5mm	-	monotaro
31	Flat head screw_M2.6L8 No.0 Type 1	3	Bolts/Nuts	N/A	M2.6×8.0	-	JIS Cross Head,D:4.5mm,L:8mm ,Remake from L10.0mm to L8.0mm	-	-
32	Flat head screw_M3L08	16	Bolts/Nuts	N/A	FF-0308N	wilco.jp		-	wilco
33	Flat head screw_M3L25	6	Bolts/Nuts	N/A	FF-0325N	wilco.jp		-	wilco
34	Hex bolt M5 L16	2	Bolts/Nuts	N/A	N/A	N/A	Fuse case accessories	https://a.co/d/alxSPYW	https://amzn.asia/d/iNSvSWa
35	Hex Socket Head Cap Screw With Spring Lock Captive Washer M4L10	4	Bolts/Nuts	N/A	FC-0410E-S2	wilco.jp		-	wilco
36	Nut_M2.6 Type 3	27	Bolts/Nuts	N/A	FNT-26N-3	wilco.jp	JIS,D:5.0mm,H:1.6mm	-	wilco
37	Nut_M3t2	10	Bolts/Nuts	N/A	FNT-03N-3	wilco.jp	JIS,D:5.5mm,H:1.8mm	-	wilco.jp
38	Nut_M5	4	Bolts/Nuts	N/A	N/A	N/A	Fuse case accessories	https://a.co/d/alxSPYW	https://amzn.asia/d/iNSvSWa
39	Pan head screw B tight 2x6	4	Bolts/Nuts	N/A	FBP-0206EB	wilco.jp		-	wilco
40	Pan head screw M3L6	2	Bolts/Nuts	N/A	F-0306N	wilco.jp		-	wilco
41	Set screw M3L4	18	Bolts/Nuts	N/A	FHS-0304EB-F	wilco.jp		-	wilco
42	Spring washer M5	2	Bolts/Nuts	N/A	N/A	N/A	Fuse case accessories	https://a.co/d/alxSPYW	https://amzn.asia/d/iNSvSWa
43	Washer M5 D10	4	Bolts/Nuts	N/A	N/A	N/A	Fuse case accessories	https://a.co/d/alxSPYW	https://amzn.asia/d/iNSvSWa
44	Frame In_V2	2	CNC	N/A	N/A	N/A	Tolerance: ± 0.05mm, fit tolerance: H7, Tapped Holes, Material: Aluminum 7075	pcbway.com	-
45	Frame Out_V2	2	CNC	N/A	N/A	N/A	Tolerance: ± 0.05mm, fit tolerance: H7, Tapped Holes, Material: Aluminum 7075	pcbway.com	-
46	MR-8_KO_PROPO	1	Controller	KONDO	MR-8	KONDO		-	kondo-robot
47	#10 Ring Terminals Connector	2	Electronic Parts	N/A	N/A	N/A		https://a.co/d/2wGGidF	https://amzn.asia/d/i2oeQJe
48	Arduino nano	1	Electronic Parts	Arduino.cc	A000005	Arduino.cc		arduino	switch-science
49	DTC114E BJT	2	Electronic Parts	onsemi	DTC114E	Digikey	Pre-Biased Bipolar Transistor (BJT)	DTC114E/12101743	-
50	0.1 μ F 50V MLCC	1	Electronic Parts	N/A	N/A	Digikey	0.1 μF ±10% 50V Ceramic Capacitor X7R Radial	490-8814-ND	-
51	1000 μ F 6.3V E-Cap	1	Electronic Parts	N/A	N/A	Digikey	CAP ALUM 1000UF 20% 6.3V RADIAL	493-10951-1-ND	-
52	1x2 Pin Header	1	Electronic Parts	N/A	N/A	Digikey	01x02, 2.54MM	732-5315-ND	-
53	1x3 Pin Socket	2	Electronic Parts	N/A	N/A	Digikey	RC JR Futaba Car Airplanes	https://a.co/d/bk1eW5i	-
54	1x4 Pin Header	1	Electronic Parts	N/A	N/A	Digikey	01x04, 2.54MM	732-5317-ND	
55	1x4 Pin Socket	1	Electronic Parts	N/A	N/A	Digikey	01x04, 2.54MM	732-61300411821-ND	-
56	1x10 Pin Header	1	Electronic Parts	N/A	N/A	Digikey	01x10, 2.54MM	732-2670-ND	-
57	1x10 Pin Socket	1	Electronic Parts	N/A	N/A	Digikey	01x10, 2.54MM	732-2859-ND	-
58	2x5 Pin Socket	1	Electronic Parts	N/A	N/A	Digikey	02x05, 2.54MM	732-2861-ND	-
59	Hook Up Wire	1	Electronic Parts	N/A	N/A	amazon	AWG28, PTFE, CB to MB	https://a.co/d/hxcgOeg	
60	Fuse 80A	1	Electronic Parts	Littelfuse	0498080.M	digikey	Fuse case accessories	digikey	https://amzn.asia/d/iNSvSWa
61	JST Plug Connector 2 Pin Male	1	Electronic Parts	N/A	N/A	N/A		https://a.co/d/e9bDXjx	https://amzn.asia/d/9XQsex1
62	Motor driver 12-48V 100A	1	Electronic Parts	N/A	-	AliExpress		https://a.co/d/h2UGo9t	aliexpress
63	Universal board 4*6	1	Electronic Parts	Roarkit	PROTOTYPE PCB	amazon	4x6 cm	https://a.co/d/eUaD8Bl	https://amzn.asia/d/4bOBwVD
64	XT30U-F,XT30U-M,silicone cable 16awg Red and Black	2	Electronic Parts	N/A	N/A	N/A		https://a.co/d/6ZVdP46	https://amzn.asia/d/ib5Sjiwy
65	XT60U-F and silicone cable 14awg	1	Electronic Parts	N/A	N/A	N/A		https://a.co/d/9tsQvMe	https://amzn.asia/d/ePv7YaF
66	0.8 Module (32 Pitch) 48T Steel Spur Gear Ø 12mm	2	Gear	N/A	JS17919	JSUMO		jsumo	-
67	Concentric Ultra Light Double Gear (0.8 Module 16T- 48T) Ø5mm	2	Gear	N/A	JS19707	JSUMO		jsumo	-
68	RC 32P Hardened Pinion Gear 5mm Shaft 19T Motor Gears Carbon Steel	2	Gear	N/A	N/A	AliExpress	m0.8, 32P, 19T, Hole:5mm, Diameter:16.67mm, Height:14mm	https://a.co/d/8EskkRp	amazon.jp
69	Magnet 15x2	8	Magnet	SUNGYO SUPPLY	N/A	SUNGYO SUPPLY	Neodymium magnets, Diameter:15mm, Height:2mm	-	e-sangyo
70	Magnet 18x5	22	Magnet	SUNGYO SUPPLY	N/A	SUNGYO SUPPLY	Neodymium magnets, Diameter:18mm, Height:5mm	-	e-sangyo

71	RZ-735VA-9517	2	Motor	Mabuchi	RZ-735VA-9517	AliExpress		https://a.co/d/aIKRsab	aliexpress
72	Shaft 3x150	1	Shaft	N/A	BACA-S6W-D3-L150	JLCMC	SUS440C or SUS303 or SUS304, Tolerance: ± 0.05	JLCMC	wilco SRU-3150
73	Shaft 5x200	4	Shaft	N/A	BACA-S6W-D5-L200	JLCMC	SUS440C, Tolerance:g6	JLCMC	-
74	Shaft 5x64	1	Shaft	N/A	BACA-S6W-D5-L64	JLCMC	SUS440C, Tolerance:g6	JLCMC	-
75	Shaft 5x71	2	Shaft	N/A	BACA-S6W-D5-L71	JLCMC	SUS440C, Tolerance:g6	JLCMC	-
76	Tire_45x30x25	2	Wheel	gomu.jp	10167-1360-6	gomu.jp	Need to cut from 300mm to 25mm, Material: Natural Rubber, Hardness: 60° (Shore A)	-	10167-1360-6

Option

No	Item name	Qty	Types	Manufacturer	Model number	Supplier	Notes	Link	
								Worldwide	Japan onry
77	RZ-735VA-8519	2	Motor	Mabuchi	RZ-735VA-8519	Mabuchi.online	High torque, low speed	-	mabuchi-motor
78	GFM-0506-15	4	Bearing	igus	GFM-0506-15	MonotaRO		GFM-0506-15	monotaro
79	JSumo Robot Wheel 45x40mm	2	Wheel	JSUMO	JS4540E	JSUMO	89 Grams,64 Shore,M3 Tapped	isumo	-
80	Pan head screw M3L6	4	Bolts/Nuts	wilco.jp	F-0306N	wilco.jp		-	wilco
81	Reactor Driver	1	Electronic Parts	JSUMO		JSUMO		igg	-
82	Inner_T_Reactor	1	3DP	FFF3DP	ABS or PETG	FFF3DP		-	-
83	Jig 16T- 48T	2	3DP	FFF3DP	ABS or PETG	FFF3DP	Jig for gluing gears and shafts	-	-
84	High Strength Threadlocker Red	1	Adhesive	Permatex	27110	Permatex	Adhesive for connecting gears and shafts. Either one is fine.	permatex	orange-book
85	LOCTITE 638	1	Adhesive	Henkel	638	Henkel	Adhesive for connecting gears and shafts. Either one is fine.	henkel	orange-book
86	Aron Alpha EXTRA	1	Adhesive	TOAGOSEI	#04612	KONISHI	Super glue for attaching tire rubber to rims. Either one is fine.	-	aronalpha
87	Loctite Super Glue Liquid Tubes	1	Adhesive	Henkel	1399967	Henkel	Super glue for attaching tire rubber to rims. Either one is fine.	henkel	-

Notes
You can choose different motors
You can choose different wheels
You can choose different motor controllers
The indirect material for assembling the robot.

How to get the parts

If you live in Japan, you should be able to get most of the parts without any problems.

However, if you live outside of Japan, you will need to find similar parts through your own country's supply chain. Please use the links in the list to help you learn more about the parts.

There are also services available that will ship items from Japanese online shops overseas on your behalf, so please use them if necessary.

[Click here for International forwarding service](#)

About M2.6 Screws and Nuts

If it is difficult to obtain M2.6 screws and nuts, M2.5 screws and nuts can be used instead, but please note the following points.

This design uses the thin type of M2.6 nut (thickness: 1.6mm). So, if you want to use M2.5 nut, please choose the thin type. If you can't get the thin type nut, please edit the 3D model to fit the nut size or file the nut.