

Autonomous driving car Parts List

WRO FE 2025

Team Double-X, Canada

Revision 2025-09-01

Item	P/N	Description	MFR	Source	Qty	Usage	Total Cost
1	INR-18650-P30B	3.7V 18650 cell	Molicel	18650BatteryStore.com	4	Power pack	28
2	a15062200ux0651	DPDT toggle switch	Uxcell	Amazon.ca	2	Power switches	16
3	114090052	Battery holder 18650 4 cells	Seed Technology Co	Digikey	1	Battery holder	2
4	39367pb02	Wheel 56 X 14	Lego Group	Bricklink.com	4	Mechanical structure	16
5	KLF014	Fuse holder	Kolacen	Digikey	1	Power	1
6	DC001	12V Male+Female 2.1x5.5MM DC Power Jack Plug Adapter	Daykit	Amazon.ca	1	Power plugs	2
7	Generic	Radial Electrolytic Capacitor, 100uF, 16V	Generic	Amazon.ca	1	Stepper driver circuit	0.5
8	CER-795	CERRXIAN 90 Degree USB A to B Cable	Lemeng	Amazon.ca	1	Pi to Arduino cable	6.5
9	SJ-15	DRV8825 Stepper Motor Driver	SazkJere	Amazon.ca	1	Stepper driver	5
10	CA-EL-CP-006	Mini Breadboard	Elegoo	Amazon.ca	1	Stepper driver circuit	2
11	X00413AO5J	Maixbomr Right Angle USB C to 2 Pin Bare Wire	Maixbomr	Amazon.ca	1	Pi power cable	6
12	39100-1910	Terminal blocks clear, 12 pos, 8 mm pitch	Molex	Mouser	2	Power connections	5
13	HS-225BB	Cored Nylon Gear 24T Analog Mini Servo	Hitec	Robotshop	1	Direction motor	30
14	RB-Ard-34	Arduino Uno R3 USB Microcontroller	Arduino	Robotshop	1	Microcontroller	28
15	PI5-8GB-STR128-C4-BLK	Raspberry Pi 5 Starter Kit - Turbine Black	Raspberry Pi	Canakit	1	Main computer	225
16	PYBE30-Q24-S5-DIN	DC-DC converter 12V - 5V 6amps 30W	CUI	Digikey	1	Generate 5V from battery	57
17	B099JXQN6K	Polymaker PLA Filament 1.75 mm	Polymaker	Amazon.ca	1	Mechanical structure	32
18	BasePlaqueV4	3D printed base plate	Double-X	3D printed	1	Mechanical structure	0
19	MiddlePlaqueV4	3D printed middle plate	Double-X	3D printed	1	Mechanical structure	0
20	TopPlaqueV4	3D printed top plate	Double-X	3D printed	1	Mechanical structure	0
21	CouplingV3	3D printed coupler	Double-X	3D printed	1	Mechanical structure	0
22	ServoHolderV2	3D printed servo holder	Double-X	3D printed	1	Mechanical structure	0
23	StepMotorBracket	3D printed stepper holder	Double-X	3D printed	1	Mechanical structure	0
24	FrontWingV2	3D printed bumper	Double-X	3D printed	1	Mechanical structure	0
25	CamHolderV4	3D printed camera holder	Double-X	3D printed	1	Mechanical structure	0
26	DirectionRods3	3D printed direction rod long	Double-X	3D printed	1	Mechanical structure	0
27	DirectionRodsShort3	3D printed direction rod short	Double-X	3D printed	1	Mechanical structure	0
28	DirectionTabs	3D printed direction tabs (LH and RH)	Double-X	3D printed	1	Mechanical structure	0
29	ButtonHolder	3D printed switch holder	Double-X	3D printed	1	Mechanical structure	0
30	17HS4023	Stepper motor NEMA 17	Pancake Motor	Abra electronics	1	Drive motor	27
31	527-1	Raspberry Pi Camera module 3 wide + cable	Raspberry	Pishop	1	Camera	49
32	3737	Axle 10L	Lego Group	Bricklink.com	2	Rear axles	0.5
33	87083	Axle 4L with stop	Lego Group	Bricklink.com	2	Front axles	0.5
34	3705	Axle 4L	Lego Group	Bricklink.com	1	Stepper main axle	0.25
35	3713	Bushing	Lego Group	Bricklink.com	8	Mechanical structure	0.5
36	4265	half bushing	Lego Group	Bricklink.com	4	Mechanical structure	0.25
37	6589	Bevel gear 12 tooth	Lego Group	Bricklink.com	3	Mechanical structure	0.25

38	62821b	Gear differential 28 tooth bevel	Lego Group	Bricklink.com	1	Mechanical structure	1
39	64179	Frame	Lego Group	Bricklink.com	1	Mechanical structure	0.5
40	JF-0039	SPDT toggle switch	Jianfeng Store	Amazon.ca	1	Selector switch	2
41	PBS-110-XR	SPST push button momentary	Twidex	Amazon.ca	1	Start button	1.7
42	LS-1280	M3 socket head screws, multiple length	HPGJLEE	Amazon.ca	33	Mechanical structure	0.5
Total							545.95