

Required components

index	name	price	amount	reference	total	Specification			
1	XL 4005 DC-DC Adjustable Step down conver	€2.30	1	http://www.bangg	€2.30				
2	Set of 4 DC motors and 4 wheels	€9.47	1	http://www.bangg	€9.47	DC motor with reduction rate 1:48, 65mm wheel with rubber tire			
3	Turnigy Li-Po battery	€10.52	1	http://www.hobbyk	€10.52	2200mAh			
4	Ultrasonic sensor SRF02	€14.99	1	http://www.exp-tec	€14.99				
5	Fan 40x40x10 mm, 12 V	€2.45	2	http://www.pollin.d	€4.90				
6	Motor driver L298	€2.29	1	http://www.bangg	€2.29				
7	Raspberry Pi 3	€31.41	1	https://www.eleme	€31.41				
8	Raspberry Pi Camera 5MP	€22.75	1	http://www.pollin.d	€22.75				
9	M3x25 nylon screws - pack of 100	€5.51	1	https://www.buerkl	€5.51	only 12 needed for the project			
10	M3x12 screws - pack of 100	€2.89	1	https://www.buerkl	€2.89				
11	M3 washers - pack of 100	€0.60	1	https://www.buerkl	€0.60				
12	M3 nuts - pack of 100	€1.13	1	https://www.buerkl	€1.13				
13	Jumper Cable Wire Combination - pack of 120	€3.76	1	http://www.bangg	€3.76	only 10 needed for the project			
14	3.0x250x500 mm MDF sheet	€0.75	2	https://www.modul	€1.50				
15	Portable loudspeaker	€2.50	1	http://www.pollin.d	€2.50	provided with battery and audio jack to plug into the Pi			
					€116.52				

Other tools and components

Stranded wires
Female and male pin headers
Soldering station
Multimeter
Screwdriver
Tape
Scissors
Hot glue (optional)

Alternative components from German stores

index	name	price	amount	reference	total
1	Pololu 5V, 2.5A Step-Down Voltage Regulator	€8.95	1	http://www.exp-t	€8.95
2	Fan 40x40x10 mm, 12 V	€2.45	2	http://www.pollin	€4.90
3	Motor driver	€14.28	1	http://www.exp-t	€14.28
4	Dagu DC Gear Motor Pair 90 Degree Shift (1	€8.50	2	http://www.exp-t	€17.00
5	Wheel Pair 65mm Rubber Tire	€3.65	2	http://www.exp-t	€7.30