

Project:

TankBot Mk1

Issued: 14/08/2024

Part	Qty	Unit Price (£'s)	Cost (£'s)	Supplier	Comments	Link
1N4006 Rectifier Diode 800V	4	£0.04	£0.16	Amazon	Sunk cost - cost per cm	Link
2mm x 10mm Steel Pozi Screws - silver	42	£0.03	£1.09	ebay	Can be re-used on other projects	Link
8GB micro-SD memory card	1	£3.75	£3.75	Amazon	Can be re-used on other projects	Link
Batteries 18650 Lithium 3.7v 3000mAh	2	£2.85	£5.70	AliExpress	Can be re-used on other projects	Link
Battery 18650 spring contacts, sourcing map	2	£0.31	£0.62	Amazon	Sunk cost - cost per cm	Link
Battery Charger - 2 slot Lii-202 18650	1	£13.99	£13.99	ebay	Can be re-used on other projects	Link
Button Switch 6x6x5mm 4 pin tactile	2	£0.03	£0.06	Amazon	Sunk cost	Link
Capacitor 470uF 16V	1	£0.38	£0.38	RS Components	Sunk cost	Link
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DC-DC MP1584 Step Down Power Supply Module 3A Adjustable	1	£0.73	£0.73	AliExpress	Sunk cost	Link
DC 3V-6V Gear TT Motor for Smart Robot Car	4	£4.66	£18.64	ebay	Can be re-used on other projects	Link
DC Power Socket 5.5mm Ø2.1	1	£0.38	£0.38	ebay	Sunk cost	Link
Display 0.96inch white 64x128 OLED I2C, 27mm x 27mm board	1	£3.60	£3.60	Amazon	Can be re-used on other projects	Link
DRV8833 Motor Drive Module H-bridge	4	£1.25	£5.00	Amazon	Can be re-used on other projects	Link
Encoder disc speed sensor DZ186	2	£1.32	£2.63	ebay	Can be re-used on other projects	Link
ESP32 DevKitC NodeMCU ESP-WROOM-32S	1	£5.27	£5.27	AliExpress	Can be re-used on other projects	Link
LM386 mono audio amplifier	1	£1.10	£1.10	Amazon	Can be re-used on other projects	Link
M3 x 30mm Nylon C-Sunk screws	1	£0.07	£0.07	RS Components	Can be re-used on other projects	Link
M5 x 50mm cheese head steel bolts + Nuts & washers	8	£0.58	£4.67	H/W store	Can be re-used on other projects	
Micro SD card module shield	1	£1.00	£1.00	Amazon	Can be re-used on other projects	Link
Pin Header Strips Female 1 x 40	1	£0.90	£0.90	ebay	Sunk cost	Link
Pin Header Strips Male 1 x 40	1	£0.80	£0.80	ebay	Sunk cost	Link
RCWL-1601 Ultrasonic Distance Sensor	1	£3.90	£3.90	PiHut	Can be re-used on other projects	Link
Resistors 1/4 W	5	£0.03	£0.14	RS Components	Sunk cost	
Servo Motor MG90D Metal Gear Digital	1	£4.90	£4.90	PiHut	Can be re-used on other projects	Link
Speaker 2W 4 Ohm DIY Magnetic Speaker 50mm Round	1	£2.91	£2.91	ebay	Can be re-used on other projects	Link
Speed sensor LM393 IR slot type	2	£1.58	£3.16	Amazon	Can be re-used on other projects	Link
Toggle Switch SPDT 5A@250 AC	1	£0.79	£0.79	Amazon	Can be re-used on other projects	Link
VL53L1X time of flight laser range finder	1	£4.22	£4.22	AliExpress	Can be re-used on other projects	Link
WS2812B RGB LED chips, white 5050SMD	9	£0.15	£1.35	Amazon	Sunk cost	Link
1.75mm PLA Filament 1kg reel - Voxelab +/- 0.02mm	0.3	£14.00	£4.20	Amazon	Sunk cost	Link
2-part epoxy glue 30ml tubes	0.5	£3.90	£1.95	ScrewFix	Sunk cost	Link
Wire wrapping wire, 30AWG 8 colours, 250m spools	0.05	£8.00	£0.40	Amazon	Sunk cost - cost per spool	Link
Total:			£98.80			
Optional:			£13.99		Can be re-used on other projects	
Re-use:			£72.37		Can be re-used on other projects	
Sunk:			£12.44		Sunk cost	

Notes:

Prices are indicative, postage not included. Bulk purchases may be required to achieve figures. ie. LEDs, screws, etc

Web links are used as a product search guide, may not be available long term

Rechargeable batteries will require a charger

Consumables like solder, flux, hook-up wire, etc are not included here, but are needed.

3-D printer is an estimate, but 1kg reel will do the job.