

Project:

BalanceBot Mk1

Issued: 30/08/2022

Part	Qty	Unit Price (£'s)	Cost (£'s)	Supplier	Comments	Link
BalanceBot MK1:						
1N4006 Rectifier Diode 800V	2	£0.04	£0.08	Amazon	Sunk cost - cost per cm	Link
2mm x 10mm Steel Pozi Screws - silver	28	£0.03	£0.73	ebay	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
Button Switch 6x6x6mm 4 pin tactile	2	£0.03	£0.06	Amazon	Sunk cost	Link
DC-DC Power Supply Module 3A stepdown converter	1	£0.95	£0.95	AliExpress	Can be re-used on other projects	Link
DC 3V-6V Gear TT Motor for Smart Robot Car	2	£4.66	£9.32	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 2.4" TFT color SPI Waveshare	1	£16.99	£16.99	Amazon	Can be re-used on other projects	Link
DRV8833 Motor Drive Module H-bridge	2	£1.25	£2.50	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 ESP-WROOM-32S	1	£4.48	£4.48	AliExpress	Can be re-used on other projects	Link
IR Optocoupler Speed Sensor Module LM393	4	£1.34	£5.35	Amazon	Can be re-used on other projects	Link
M3 x 30mm Nylon C-Sunk screws	4	£0.07	£0.27	RS Components	Can be re-used on other projects	Link
MPU-6050 3-axis accelerometer GY-521	1	£1.88	£1.88	ebay	Can be re-used on other projects	Link
Pin Header Strips Female 1 x 40	1	£0.28	£0.01	ebay	Sunk cost	
Pin Header Strips Male 1 x 40	1	£0.30	£0.01	ebay	Sunk cost	
Resistors 1/4 W	1	£0.03	£0.03	RS Components	Sunk cost	
Servo Motor micro servo digital GH-S37D	1	£2.30	£6.99	3bay	Can be re-used on other projects	Link
Toggle Switch SPDT 5A@250 AC	2	£0.79	£1.57	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	4	£0.15	£0.60	Amazon	Sunk cost	Link
	sub:		£65.36			
WEMOS D1 Transceiver:						
1N4006 Rectifier Diode 800V	1	£0.04	£0.04	Amazon	Sunk cost - cost per cm	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
Button Switch 6x6x6mm 4 pin tactile	1	£0.03	£0.03	Amazon	Sunk cost	Link
DC-DC Power Supply Module 3A stepdown converter	1	£0.95	£0.95	AliExpress	Can be re-used on other projects	Link
Display 0.96inch white 64x128 OLED I2C	1	£2.99	£2.99	AliExpress	Can be re-used on other projects	Link

ESP8266 Wemos D1 mini	1	£4.00	£4.00	Amazon	Can be re-used on other projects	Link
M3 x 30mm Nylon C-Sunk screws	4	£0.07	£0.27	RS Components	Can be re-used on other projects	Link
Pin Header Strips Female 1 x 40	1	£0.28	£0.01	ebay	Sunk cost	
Pin Header Strips Male 1 x 40	1	£0.30	£0.01	ebay	Sunk cost	
Resistors 1/4 W	1	£0.03	£0.03	RS Components	Sunk cost	
Toggle Switch SPDT 5A@250 AC	2	£0.79	£1.57	Amazon	Can be re-used on other projects	Link
WiiChuck Adapter Plate I2C	1	£1.49	£1.49	ebay	Can be re-used on other projects	Link
Wii Nunchuk Game Controller	1	£7.99	£7.99	ebay	Can be re-used on other projects	Link
	sub:		£25.69			
Battery Charger - 2 slot Li-202 18650	1	£6.99	£6.99	ebay	Can be re-used on other projects	
Soft-melt Glue	1	£0.30	£0.30	Wilko	Sunk cost	
1.75mm PLA Filament 1kg reel	0.6	£24.00	£14.40	3DPrintz	Sunk cost	
2-part epoxy Gorilla glue	0.5	£3.90	£1.95	Wilko	Sunk cost	
		Total:	£114.68			
		Optional:	£6.99		Can be re-used on other projects	
		Re-use:	£88.56		Can be re-used on other projects	
		Sunk:	£19.13		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 filament is an estimate, but 1kg reel will do the job.