

Derbot Parts List

<u>Item</u>	<u>Qty</u>	<u>Recommended UK Supplier</u>	<u>Supplier Code</u>	<u>UnitPrice (£ stlng)</u>	<u>Total Price</u>
Build Stage 1 (power, microcontroller, microswitches & leds)					
pcb	1				
PIC 16F873A	1	Rapid	73-3342	2.95	2.95
Voltage Reg	1	RS	411-826	1.04	1.04
28-pin ic skt	1	Rapid	22-0175	0.13	0.13
28-pin ic skt (turned pin)	1	Rapid	22-0447	0.47	0.47
reset switch	1	Rapid	78-0605	0.14	0.14
microswitch	2	Rapid	78-2408	0.51	1.02
Mode, Power switches	2	Rapid	76-0200	0.55	1.10
Crystal 4MHz	1	Rapid	90-0310	0.30	0.30
power input connector	1	Rapid	20-0970	0.11	0.11
power plug	1	Rapid	20-0905	0.15	0.15
Comms Connector 6/6 (ICD2)	1	Rapid	24-0460	0.25	0.25
led, min, red, high intensity	2	Rapid	55-0150	0.07	0.14
24k res	4				0.4
820R res	2				0.2
33p cap, ceramic	2	Rapid	08-0475	0.08	0.08
1u, 25V tant	1	Rapid	11-1036	0.10	0.10
100u, 10V, elec	1	Rapid	11-0310	0.04	0.04
100n	1	Rapid	08-0235	0.06	0.06
Harwin track pin (for vias)	50	Harwin http://www.harwin.com/	T1558-T1565		0.20
Terminal Pins, single sided	13	Rapid	34-0610 (per 100) 34-0620 (per 1000)	0.48 3.70	0.05
				Total	8.93

Build Stage 2 (add motors & drive)					
74HC14	1	Rapid	83-0050	0.22	0.22
L293D	1	Rapid	82-0192	3.29	3.29
16-pin ic skt	1	Rapid	22-0160	0.09	0.09
14-pin ic skt	1	Rapid	22-0155	0.08	0.08
10k res	2				0.2
Geared Motor	2	MFA/Como	918D30112/1	12.87	25.73
Wheel	2	Rapid	37-1320 (pack of 4)	2.15	1.07
Ball Caster	1	Active Robots www.active-robots.com	MRM-017 (pack of 2)	8.21	0
Furniture Leg Slide (low cost alternative to above)		Any DIY store			0.3
Screw M2.5 x 6mm	8	Rapid	33-2200 (pack of 100)	0.90	0.1
Nut M2.5	8	Rapid	33-1705 (pack of 100)	0.50	0.1
				Total	33.18
Further Build, Opto devices plus sounder					
Piezo sounder	1	RS Kingstate electronics KPE-204A	295-9358	1.58	1.58
ZVN4206A MOSFET	2	Rapid	47-0162	0.46	0.92
reflective opto sensor	2	RS	194-4018	1.84	3.68
90 deg Header	1	Rapid	22-0815	0.19	0.19
LDR	3	Rapid	58-0132	0.85	2.55
10k res	3				0.3
Bus connector	1	RS	479-181 (pack of 10)	0.54	0.54
				Total	9.76
Further Build, Servo plus Ultrasound					
Servo	1	Anglia Model Centre www.modelshops.uk.com	Futaba S3003	5.99	5.99
Ultrasound sensor	1	http://www.active-robots.com/	Devantech SR04/05	17.04	17.04
Countersunk screw and nut. M4 x 40mm	4	Any DIY store			0.5
				Total	23.53
Battery Pack					
pcb					
Battery holder	2	Rapid	18-2967	0.31	0.62
20mm M3 spacer/pillar	8	Rapid	33-3598 (pack of 25)	3.25	1.04
				Total	3.66

Hand Controller					
pcb					
PIC 16F873A	1	Rapid	73-3342	2.95	2.95
Keypad	1	Rapid	78-0305	2.40	2.40
LCD Display 8x2	1	RS	214-3288	8.55	8.55
AND					0
contrast adjust pot	1	Rapid or RS	68-0940 186-750	0.45 0.58	0.45
OR					0
7-segment digit	4	Rapid	57-0119	0.30	0
AND					0
40 pin DIL skt	1	Rapid	22-0190		0
Resistor Array	1	Rapid	63-0130	0.10	0.1
connector housing, 6 way	1	RS	296-4984 (pack of 5)	0.21	0.21
connector crimp terminals	6	RS	467-598 (pack of 100)	0.05	0.3
Cap 100p, 0.2"	1	Rapid	08-0140	0.1	0.1
Cap 10n, 0.2"	1	Rapid	08-0235	0.1	0.1
20mm M3 spacer/pillar	4	Rapid	33-3598 (pack of 25)	3.25	0.52
				Total (for lcd)	15.68