

MECHANICAL COMPONENTS LIST								
N. ° of component	Material (Standard)	Description	Supplier	Quantity (uds)	Unitary Price (€)	Transport cost (€)	Final price (€)	Notes
1	DIN 933	Hexagonal Head Screw DIN 933 M6 x 16	ARTIFIXO	10	0,057	0	0,57	http://artifixo.pt/pt
2	DIN 933	Hexagonal Head Screw DIN 933 M5 x 12	ARTIFIXO	1	0,053	0	0,053	http://artifixo.pt/pt
3	DIN 934	Hexagonal nut DIN 934 M4	ARTIFIXO	4	0,0152	0	0,0608	
4	DIN 934	Hexagonal nut DIN 934 M6	ARTIFIXO	6	0,0252	0	0,1512	http://artifixo.pt/pt
5	DIN 934	Hexagonal nut DIN 934 M8	ARTIFIXO	1	0,052	0	0,052	http://artifixo.pt/pt
6	DIN 97	Slotted Flat Head Wood Screw DIN 97 02 x 10	ARTIFIXO	37	0,045	0	1,665	http://artifixo.pt/pt
7	DIN 125a	Flat Washer DIN 125a M4	ARTIFIXO	4	0,0071	0	0,0284	http://artifixo.pt/pt
8	DIN 125a	Flat Washer DIN 125a M5	ARTIFIXO	1	0,0071	0	0,0071	http://artifixo.pt/pt
9	DIN 125a	Flat Washer DIN 125a M6	ARTIFIXO	10	0,0061	0	0,061	http://artifixo.pt/pt
10	DIN 916	Grub Screw DIN 916 M4 x 6	ARTIFIXO	5	0,0115	0	0,0575	http://artifixo.pt/pt
12	DIN 966	Phillips Oval Countersunk Machine Screw DIN 966 M3 x 8	ARTIFIXO	8	0,0132	0	0,1056	http://artifixo.pt/pt
13	DIN 912	Socket Head Cap Screw DIN 912 M4 x 10	ARTIFIXO	6	0,039	0	0,234	http://artifixo.pt/pt
14	Zinc plated metal	Union Square 30 x 30	LEROY MERLIN	4	0,29	0	1,16	http://www.leroymerlin.pt/Site/Produtos/Ferragens/Ferragens-para-moveis/Placas-de-uniao/11257694.aspx
15	Zinc plated metal	Threaded rod M8 x 1000	LEROY MERLIN	1	0,99	0	0,99	http://www.les-rolamentos.pt/Site/Produtos/Ferragens/Ferragens-de-fixacao/Anilhas-e-varoes/14858473.aspx
16	DIN 625	Radial Bearing 6001 ZZ	ABS ROLAMENTOS	4	3,9	0	15,6	http://www.abs-rolamentos.pt/
17	PLA	PLA Printing Filament	BOXELECTRONICA	1	19,99	0	19,99	https://www.boxelectronica.com/en/impressoras-3d/392-bq-175mm-pla-white-1kg.html
18	Wood	Wood Panel Ø350 x 10	ISEP	1	0	0	0	http://www.isep.ipp.pt/
24	Wood	Wood profile 10 x 10 x 170	ISEP	5	0	0	0	http://www.isep.ipp.pt/
25	Wood	Wood profile 12 x 12 x 180	ISEP	2	0	0	0	http://www.isep.ipp.pt/
19	Steel	Hollow circular section profile Ø31 x Ø28 x 220	ISEP	1	0	0	0	http://www.isep.ipp.pt/
20	Steel	Edge profile 15 x 15 x 200 / 1	ISEP	3	0	0	0	http://www.isep.ipp.pt/
22	Steel	Steel plate for welding	ISEP	1	0	0	0	http://www.isep.ipp.pt/
27	Steel	Hexagonal Rod e/c 15	ISEP	1	0	0	0	http://www.isep.ipp.pt/
21	Aluminium	Solid round Ø20	ISEP	1	0	0	0	http://www.isep.ipp.pt/
23	Bronze	Shaft Spacer Ø15 x Ø12 x 10	ISEP	1	0	0	0	http://www.isep.ipp.pt/
26	PVC	PVC plate 300 x 300 x 2	ISEP	1	0	0	0	http://www.isep.ipp.pt/
TOTAL PRICE- MECHANICAL COMPONENTS (€)							40,7856	

ELECTRICAL COMPONENTS LIST							
N. ° of component	Description	Supplier	Quantity (uds)	Unitary Price (€)	Transport cost (€)	Final price (€)	Notes
28	Tiva C EK-TM4C123GXL Board	DIGIKEY	1	12,62	0	12,62	https://www.digikey.pt/product-detail/en/texas-instruments/EK-TM4C123GXL/296-35760-ND/3996736
	Stepper Motor NEMA 17	DIGIKEY	2	13,09	0	26,18	https://www.digikey.pt/product-detail/en/adafruit-industries-lc/2411528-1195-ND/5022721
28	RTC	DIGIKEY	1	4,11	0	4,11	http://www.digikey.pt/scripts/DkSearch/dksus.dll?Detail&ItemSeq=224147736&uq=636285672903973059
28	Rocker switch	DIGIKEY	1	0,68	0	0,68	https://www.digikey.pt/product-detail/en/cw-industries/GRS-4011-1600/SW301-ND/81487
	H-bridge	DIGIKEY	2	3,65	0	7,3	https://www.digikey.pt/product-detail/en/stmicroelectronics/L293D/497-2936-5-ND/634700
28	Inverter SN74HC04N	DIGIKEY	1	0,49	0	0,49	http://www.digikey.pt/scripts/DkSearch/dksus.dll?Detail&ItemSeq=224147626&uq=636285672903953059
28	Small Push Button	ISEP	10	0	0	0	https://www.digikey.pt/product-detail/en/le-connectivity-alcooswitch-switches/1925910-7/450-1804-ND/1731414
	Capacitor 0.47µF	ISEP	10	0	0	0	https://www.digikey.pt/product-detail/en/nichicon/UVR2R47MDD/493-1139-ND/688880
28	Breadboard (1 regular and 1 small for buttons and leds)	ISEP	2	0	0	0	https://www.digikey.pt/product-detail/en/adafruit-industries-lc/1609/1528-1195-ND/5353655
28	Jumper wires (compatible with the breadboard	ISEP	1	0	0	0	https://www.digikey.pt/product-detail/en/sparkfun-electronics/PRT-12795/1568-1512-ND/5993860
	Wire	ISEP	1	0	0	0	https://www.digikey.pt/product-detail/en/general-cable-cable-brand/C2003A-12-010-2003B-5-ND/4455017
28	33 kOhm resistor	ISEP	10	0	0	0	https://www.digikey.pt/product-detail/en/stackpole-electronics-inc/CF14JT33K0/CF14JT33K0CT-ND/1830387
28	220 Ohm resistor	ISEP	3	0	0	0	https://www.boxelectronica.com/en/resistances-5-93-resistor-10-5.html#?r=1-resistor-resistor-220-5
28	Red Led	ISEP	3	0	0	0	https://www.boxelectronica.com/en/standard/87-led-5mm-red.html
28	Lithium Battery 3V CR1225	BOXELECTRONICA	1	0,75	0	0,75	https://www.boxelectronica.com/en/batteries/508-lithium-battery-3v-cr1225.html
28	Power supply 12V 1A	BOXELECTRONICA	1	6,95	0	6,95	https://www.boxelectronica.com/en/power-supply/412-power-supply-12v-1a.html
TOTAL PRICE- ELECTRICAL COMPONENTS (€)						59,08	

TOTAL PRICE (€)	99,8656
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