Group	Part	Content	Quantity	Description/comment	Source/Link	Price per unit	Total	Note	**Sum**	**1,190.96 €**
Actuators	N20 motor	1	4	12 V 50 rpm	https://funduinoshop.com/elektronische-module/elektromotoren-und-zubehoer/getriebemotoren/mini-getriebemotor-n20?number=F23108855	4.77 €	19.08 €			
Actuators	Pololu DRV8825	1	1	Stepper motor driver	https://funduinoshop.com/elektronische-module/elektromotoren-und-zubehoer/motortreiber/pololu-drv8825-stepper-motortreiber-carrier-high-current	3.29 €	3.29 €			
Actuators	Cytron MD 20A	1	1	20 A brushed DC driver	https://eu.robotshop.com/de/products/cytron-20a-6-30v-dc-motorsteuerung	23.80 €	23.80 €			
Actuators	Pololu DRV8876 QFN	1	4	1.1 A brushed DC driver	https://eu.robotshop.com/de/products/pololu-drv8876-qfn-einzelner-gebursteter-dc-motortreibertrager	6.75 €	27.00 €			
Actuators	Sunfounder SF3218MG	1	1	servo motor	https://eu.robotshop.com/de/products/sunfounder-sf3218mg-metallgetriebe-digital-servo-20-kg-hohes-drehmoment	16.30 €	16.30 €			
Actuators	Joy-IT NEMA14-01	1	1	Nema 14 stepper motor	https://www.reichelt.de/schrittmotor-nema-14-1-8-0-4-a-8-v-nema14-01-p269220.html	17.70 €	17.70 €			
Actuators	775 12 V 10k rpm 150 W	1	1	775 brushed DC motor	https://www.amazon.de/dp/B07BGWMYYM	13.99 €	13.99 €			
Actuators	5 mm flange shaft coupler	4	1	shaft adapter for 775 motor	https://www.amazon.de/dp/B0833PTFZM/	9.99 €	9.99 €			
Batteries	SLS XTRON 5000MAH 3S1P	1	1	car battery	https://www.stefansliposhop.de/akkus/sls-xtron/sls-xtron-20c/sls-xtron-5000mah-3s1p-11-1v-20c-40c::985.html	51.90 €	51.90 €			
Batteries	Duracell NiMH AA 2500 mAh	4	2	RC batteries	https://www.reichelt.de/nimh-akku-aa-mignon-2500-mah-4er-pack-dura-nimh-aa4-p357195.html	12.95 €	25.90 €			
Bearings	683ZZ	20	8	3x7x3	https://www.amazon.de/sourcing-map-Rillenkugellager-Doppelschild-Kohlenstoffstahl/dp/B07H5HXND9/	9.49 €	75.92 €			
Bearings	6802ZZ	10	4	15x24x5	https://www.amazon.de/XiKe-Kugellager-15x24x5mm-Abgedichtet-Rillenkugellager/dp/B09SD74PZV/	11.59 €	46.36 €			
Bearings	6804ZZ	10	1	20x32x7	https://www.amazon.de/XiKe-Kugellager-20x32x7mm-Abgedichtet-Rillenkugellager/dp/B09SD8RKJT/	12.99 €	12.99 €			
Bearings	608ZZ	20	1	8x22x7	https://www.amazon.de/HonLena-Kugellager-Shielded-Rillenkugellager-Skateboard/dp/B08K936Y1Z/	9.99 €	9.99 €			
Bearings	605ZZ	10	1	5x14x5	https://www.amazon.de/sourcing-map-Rillenkugellager-5mmx14mmx5mm-Kohlenstoffstahl/dp/B07H936D3C/	7.99 €	7.99 €			
Bearings	LM6UU	10	1	6x12x19	https://www.amazon.de/DollaTek-6x12x19mm-Doppelseitige-Gummidichtung-Linearkugellager/dp/B081JNGFRY	7.99 €	7.99 €			
Connectors	Molex 16-02-0102	100	2	Molex SL female crimp pin	https://www.mouser.de/ProductDetail/Molex/16-02-0102?qs=UAyrm%2FnZ%252BCifWkt7bqgfPw%3D%3D	9.00 €	18.00 €			
Connectors	Molex 16-02-0114	100	1	Molex SL male crimp pin	https://www.mouser.de/ProductDetail/Molex/16-02-0114?qs=UAyrm%2FnZ%252BCigCgVrFx3CfA%3D%3D	14.80 €	14.80 €			
Connectors	Molex 70543-0001	10	2	Molex SL 2-pin socket	https://www.mouser.de/ProductDetail/Molex/70543-0001?qs=tYx%252BZc2nXqpCsE0XoulATg%3D%3D	8.04 €	16.08 €			
Connectors	Molex 70543-0002	10	2	Molex SL 3-pin socket	https://www.mouser.de/ProductDetail/Molex/70543-0002?qs=tYx%252BZc2nXqrtKxtMAQ73sw%3D%3D	8.80 €	17.60 €			
Connectors	Molex 70543-0003	10	2	Molex SL 4-pin socket	https://www.mouser.de/ProductDetail/Molex/70543-0003?qs=tYx%252BZc2nXqp%2Fu7bSTX42XQ%3D%3D	9.49 €	18.98 €			
Connectors	Molex 50-57-9402	10	3	Molex SL 2-pin female connector	https://www.mouser.de/ProductDetail/Molex/50-57-9402?qs=u6Gr9%2FNt%252B%2F9jh%2FRowNBxRQ%3D%3D	1.94 €	5.82 €			
Connectors	Molex 50-57-9403	10	3	Molex SL 3-pin female connector	https://www.mouser.de/ProductDetail/Molex/50-57-9403?qs=u6Gr9%2FNt%252B%2F9Ok3bHhq8UPA%3D%3D	1.55 €	4.65 €			
Connectors	Molex 50-57-9404	10	3	Molex SL 4-pin female connector	https://www.mouser.de/ProductDetail/Molex/50-57-9404?qs=u6Gr9%2FNt%252B%2F%2FUw3Dr7T8xxg%3D%3D	1.58 €	4.74 €			
Connectors	Molex 70107-0001	10	1	Molex SL 2-pin male connector	https://www.mouser.de/ProductDetail/Molex/70107-0001?qs=3%2Fy1uQ6JZnnrUEDOV9QGOA%3D%3D	3.18 €	3.18 €			
Connectors	Molex 70107-0002	10	1	Molex SL 3-pin male connector	https://www.mouser.de/ProductDetail/Molex/70107-0002?qs=3%2Fy1uQ6JZnnnzDN%2Fq%252BMhTg%3D%3D	4.33 €	4.33 €			
Connectors	Jamara XT60	1	1	M/F pair of high-current connectors	https://www.reichelt.de/steckverbinder-fuer-li-polymer-akkus-2-polig-xt60-hstxt60-stbu-p207648.html?&trstct=pos_0&nbc=1	1.99 €	1.99 €			
Electronics	ESP32 MCU	2	1	with connector for external antenna	https://www.amazon.de/iHaospace-ESP32-WROOM-32U-ESP32-DevKitC-Development-Entwicklungsboard/dp/B0CT3BHJ4C/	15.99 €	15.99 €	1		
Electronics	Antenna	2	1	external antenna for ESP32	https://www.amazon.de/2-4GHz-Omnidirektionale-Antenne-802-11n-Pigtail/dp/B07FDN82D8/	6.99 €	6.99 €			
Electronics	ESP32 MCU	1	1	with onboard antenna	https://funduinoshop.com/elektronische-module/wireless-iot/esp-wifi/funduino-esp32-wroom32-wlan-wifi-entwicklungsboard-mit-cp2102	9.07 €	9.07 €			
Electronics	1 W E10 LED (white)	5	1	4 are needed	https://www.amazon.de/Ruiandsion-LED-Leuchtmittel-Taschenlampe-Scheinwerfer-Mini-Kopflampe/dp/B08V85B6LJ/	8.99 €	8.99 €			
Electronics	E10 LED socket	10	1	4 are needed	https://www.amazon.de/dp/B089ND3V9H/ref=pe_27091401_487027711_TE_SCE_dp_2	7.99 €	7.99 €			
Electronics	WS2812 RGB Strip (144 LEDs/m)	1 m	1	30 cm are needed	https://www.amazon.de/gp/product/B088JPLP2H/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&th=1	15.99 €	15.99 €			
Electronics	PCA9685	1	1	Servo controller board	https://funduinoshop.com/elektronische-module/elektromotoren-und-zubehoer/motortreiber/16-kanal-12bit-pwm-servomotor-treiber-i2c-pca9685	8.85 €	8.85 €			
Electronics	ADS1115	1	3	ADC boards	https://www.amazon.de/Kompatibel-Analog-Digital-Wandler-ADC-Modul-Arduino-Raspberry/dp/B0C2Q3C781/	5.99 €	17.97 €	1		
Electronics	Bidirectional logic level shifter	1	1	5V <-> 3.3V	https://funduinoshop.com/bauelemente/aktive-bauelemente/transistoren/logic-level-converter-bidirektional-5v-zu-3-3v-und-3-3v-zu-5v-fuer-arduino	1.45 €	1.45 €			
Electronics	MCP23017	1	1	DIP-28, I2C	https://www.reichelt.de/i-o-erweiterung-16bit-1-8-5v-seriell-i2c-dip-28-mcp-23017-e-sp-p140074.html	1.80 €	1.80 €			
Electronics	MAR 1821.1101	1	2	Marquardt switch, series 1820	https://www.reichelt.de/kippschalter-6-4-a-250vac-1x-ein-aus-faston-mar-1821-1101-p36806.html	3.00 €	6.00 €			
Electronics	WIPPE 1801.6115	1	2	Marquardt on/off switch, series 1800	https://www.reichelt.de/wippschalter-1x-aus-schwarz-i-o-wippe-1801-6115-p108235.html	1.50 €	3.00 €			
Electronics	20x04 I2C LCD module	1	1	HD44780 with I2C adapter	https://funduinoshop.com/elektronische-module/displays/lcd/20x04-2004-i2c-lcd-modul-hintergrundbeleuchtung-blau	6.87 €	6.87 €			
Electronics	ONPOW anti-vandal push button	1	4	with LED, 16 mm mounting hole	https://www.pollin.de/p/onpow-vandalismusgeschuetzter-taster-220-v-ac-0-5-a-1no-rot-421217	4.99 €	19.96 €			
Electronics	Battery holder	1	1	6xAA	https://funduinoshop.com/diy-werkstatt/stromversorgung/batteriefaecher-und-klemmen/batteriefach-6x-aa-9v-ohne-stecker	1.97 €	1.97 €			
Electronics	Omeg PC20BU 10k linear	1	5	Poti with 6 mm shaft	https://www.pollin.de/p/omeg-potentiometer-pc20bu-10-ko-linear-240663	1.90 €	9.50 €			
Electronics	Bourns 93R1AR2215L	1	2	High-quality poti with 6 mm shaft	https://www.reichelt.de/drehpotentiometer-10-kohm-linear-6-mm-bou-93r1ar22a15l-p232657.html	6.25 €	12.50 €			
Electronics	Panasonic AV 32543 AT	1	1	Limit switch	https://www.reichelt.de/snap-action-mikroschalter-1x-um-rollenhebel-av-32543-at-p191401.html	1.80 €	1.80 €			
Filament	PETG filament	1 kg	3	Prusament Jet Black	https://www.prusa3d.com/product/prusament-petg-jet-black-1kg/	29.99 €	89.97 €			
Filament	PETG filament	1 kg	1	Prusament Jungle Green	https://www.prusa3d.com/product/prusament-petg-jungle-green-1kg/	29.99 €	29.99 €			
Filament	TPU filament	500 g	2	FilaFlex 40 Black	https://fila-tech.store/product/filaflexible40/?currency=USD	29.98 €	59.96 €			
Magnets	Neodymium disc magnet (south)	10	1	8x3.5x3	https://www.magnethandel.de/neodym-ringmagnete-senkung-sued-8-35-3-mm-schwarz	2.90 €	2.90 €			
Magnets	Neodymium disc magnet (north)	10	1	8x3.5x3	https://www.magnethandel.de/neodym-ringmagnete-senkung-nord-8-35-3-mm-schwarz	2.90 €	2.90 €			
Metal bars	Aluminium round bar	1 m	3	6 mm diameter (not more than 6 mm!)	local hardware store	4.00 €	12.00 €	2		
Metal bars	Steel round bar	1 m	1	3 mm diameter (not more than 3 mm!)	local hardware store	10.00 €	10.00 €	2		
PCB parts	Gaptec LC78_05-2.0	1	1	5V 2A DC-DC converter	https://www.reichelt.de/dc-dc-wandler-6-5-30-vin-5-0-vout-2-a-sip-3-lc78-05-2-0-p242830.html?&trstct=pol_2&nbc=1	13.30 €	13.30 €			
PCB parts	Gaptec LME78_03-1.0	1	2	3.3V 1A DC-DC converter	https://www.reichelt.de/dc-dc-wandler-3-w-3-3-v-1000-ma-to-220-lme78-03-1-0-p242852.html?&trstct=pol_7&nbc=1	3.85 €	7.70 €			
PCB parts	Gaptec LME78_05-1.0	1	1	5V 1A DC-DC converter	https://www.reichelt.de/dc-dc-wandler-5-w-5-v-1000-ma-to-220-lme78-05-1-0-p242853.html?search=lme78	3.85 €	3.85 €			
PCB parts	AKL 175-04	1	1	connector terminal, 4x, up to 4 mm²	https://www.reichelt.de/netzanschlussklemme-4-pol-4-mm-rm-7-5-akl-175-04-p72057.html?&trstct=pol_0&nbc=1	1.20 €	1.20 €			
PCB parts	Quadrios resistor set	1	1	20x20 different resistors	https://www.pollin.de/p/quadrios-widerstands-set-201711p004-metallschicht-0-5-watt-1-800557	13.45 €	13.45 €			
PCB parts	Omron B3F-1002	1	3	PCB pushbutton	https://www.reichelt.de/kurzhubtaster-b3f-serie-1-no-24-v-dc-50-ma-omr-b3f-1002-p258312.html	0.29 €	0.87 €			
PCB parts	Vishay TLHG 4600	1	1	LED, green, 3 mm	https://www.reichelt.de/led-3-mm-bedrahtet-gruen-2-mcd-120--vis-tlhg-4600-p230866.html	0.49 €	0.49 €			
PCB parts	Panasonic FC 100/50	1	6	Radial Cap, 100 µF, 50 V, 5 mm spacing	https://www.reichelt.de/elko-radial-100-f-50-v-105-c-low-esr-10-x-12-5-mm-rm-5-0-rad-fc-100-50-p84620.html	0.22 €	1.32 €			
PCB parts	ECC KTS500B106K (X7R)	1	4	SMD Capacitor, 10 µF, 50 V, G2220	https://www.reichelt.de/smd-kerko-2220-10-f-50-v-10-mlcc-ecc-kts500b106k-p256486.html	0.99 €	3.96 €			
PCB parts	X7R-G1206 22/10	1	8	SMD Capacitor, 22 µF, 10 V, G1206	https://www.reichelt.de/smd-vielschichtkondensator-g1206-22-f-10v-x7r-g1206-22-10-p89742.html	0.26 €	2.08 €			
PCB parts	WAL 0805B104K500	1	3	SMD Capacitor, 100 nF, 50 V, 0805(2012)	https://www.reichelt.de/smd-kerko-0805-100-nf-50v-10-x7r-mlcc-wal-0805b104k500-p346808.html	0.03 €	0.09 €			
PCB parts	IC socket GS28-2	1	1	28 pins	https://www.reichelt.de/ic-sockel-28-polig-doppelter-federkontakt-gs-28-s-p86281.html	0.14 €	0.14 €			
PCB parts	20-pin socket terminal strip	1	6	2.54 mm spacing, height 8.5 mm	https://www.reichelt.de/20pol-buchsenleiste-gerade-rm-2-54-h-8-5mm-bl-1x20g8-2-54-p51827.html	0.30 €	1.80 €			
PCB parts	10-pin socket terminal strip	1	3	2.54 mm spacing, height 8.5 mm	https://www.reichelt.de/10pol-buchsenleiste-gerade-rm-2-54-h-8-5mm-bl-1x10g8-2-54-p51826.html	0.22 €	0.66 €			
PCB parts	8-pin socket terminal strip	1	2	2.54 mm spacing, height 8.5 mm	https://www.reichelt.de/buchsenleisten-2-54-mm-1x08-gerade-mpe-094-1-008-p119917.html	0.31 €	0.62 €			
PCB parts	7-pin socket terminal strip	1	8	2.54 mm spacing, height 8.5 mm	https://www.reichelt.de/buchsenleisten-2-54-mm-1x07-gerade-mpe-094-1-007-p119916.html	0.31 €	2.48 €			
PCB parts	6-pin socket terminal strip	1	2	2.54 mm spacing, height 8.5 mm	https://www.reichelt.de/buchsenleisten-2-54-mm-1x06-gerade-mpe-094-1-006-p119915.html	0.29 €	0.58 €			
PCB parts	IMAXX H7810	1	1	miniOTO fuse holder	https://www.reichelt.de/kfz-sicherungshalter-minioto-30-a-125-v-printmontage-imaxx-h7810-p229120.html	0.99 €	0.99 €			
PCB parts	IMAXX F7030	1	1	miniOTO fuse, 30 A	https://www.reichelt.de/kfz-sicherung-minioto-30-a-gruen-imaxx-f7030-p242101.html	0.33 €	0.33 €			
PCB parts	IRLZ 44N	1	1	n-Channel logic level MOSFET, TO-220	https://www.reichelt.de/mosfet-n-ch-55v-47a-110w-to-220ab-irlz-44n-p129819.html	0.70 €	0.70 €			
PCB parts	IRFP7430PBF	1	1	n-Channel power MOSFET, TO-247	https://www.reichelt.de/mosfet-n-kanal-40-v-195-a-rds-on-0-001-ohm-to247ac-irfp7430pbf-p257333.html	3.10 €	3.10 €			
PCBs	Manufacturing of car PCB	3	1		https://aisler.net/	40.71 €	40.71 €			
PCBs	Manufacturing of RC PCB	3	1		https://aisler.net/	21.88 €	21.88 €			
Screws & nuts	M3x4	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.67	2.95 €	2.95 €			
Screws & nuts	M3x6	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.69	3.82 €	3.82 €			
Screws & nuts	M3x8	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.70	3.58 €	3.58 €			
Screws & nuts	M3x10	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.71	3.58 €	3.58 €			
Screws & nuts	M3x12	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.72	3.90 €	3.90 €			
Screws & nuts	M3x16	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.74	4.37 €	4.37 €			
Screws & nuts	M3x20	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.76	5.54 €	5.54 €			
Screws & nuts	M3x22	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.77	6.00 €	6.00 €			
Screws & nuts	M3x25	100	1	cylinder head, fully threaded	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Vollgewinde-Edelstahl-A2/SW11251M	20.60 €	20.60 €			
Screws & nuts	M3x30	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.79	7.57 €	7.57 €			
Screws & nuts	M3x35	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.80	8.66 €	8.66 €			
Screws & nuts	M3x40	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.81	9.67 €	9.67 €			
Screws & nuts	M3x45	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.82	10.69 €	10.69 €			
Screws & nuts	M3x50	100	1	cylinder head	https://shop.der-schraubenladen.de/DIN-912-ISO-4762-Zylinderschraube-Innensechskant-Edelstahl-A2/SW11250.83	11.70 €	11.70 €			
Screws & nuts	M3 nut	100	2		https://shop.der-schraubenladen.de/DIN-439-ISO-4035-Sechskantmutter-Edelstahl-A2/SW12301.11	3.90 €	7.80 €			
Screws & nuts	M3 washer	100	1		https://shop.der-schraubenladen.de/DIN-125-A-ISO-7089-Unterlegscheibe-Edelstahl-A2/SW11409.25	2.95 €	2.95 €			
Screws & nuts	M3 locknut	100	1		https://shop.der-schraubenladen.de/DIN-985-ISO-10511-Sechskantmutter-Edelstahl-A2-selbstsichernd-niedrige-Form/SW10918.5	2.95 €	2.95 €			
Screws & nuts	M4 threaded rod	1 m	1		https://shop.der-schraubenladen.de/DIN-975-DIN-976-Gewindestange-Edelstahl-A4/SW10349.1	3.95 €	3.95 €			
Screws & nuts	M4 nut	100	1		https://shop.der-schraubenladen.de/DIN-439-ISO-4035-Sechskantmutter-Edelstahl-A2/SW12301.12	3.90 €	3.90 €			
Screws & nuts	M3 threaded insert	100	2		https://www.ruthex.de/collections/gewindeeinsatze/products/ruthex-gewindeeinsatz-m3-100-stuck-rx-m3x5-7-messing-gewindebuchsen	8.99 €	17.98 €			
Screws & nuts	M3x10	100	1	countersunk	https://www.amazon.de/dp/B07YZMB95S/ref=pe_27091401_487027711_TE_SCE_dp_1	7.21 €	7.21 €			
Springs	0C0480-0512500M	1	8	For shock absorbers	https://www.febrotec.de/de-DE/druckfedern/schraubendruckfedern/0c0480-0512500m	2.38 €	19.04 €			
Springs	7x19 mm spring	30	1	Box with various sizes	https://www.amazon.de/Kraftmann-9806-Federn-Sortiment-Druckfedern-Sortimentskasten/dp/B07WFPPXXX/	7.28 €	7.28 €			
Wires	0.25mm² stranded wire	100 m	1	black	https://www.pollin.de/p/rautronic-litze-1x0-25-100m-spule-schwarz-liyv-563441	16.70 €	16.70 €			
Wires	1.5mm² single core wire	25 m	1	less than 1 m is needed	https://www.reichelt.de/schaltdraht-h07v-u-1-5-mm-25-m-blau-h07vu-1-5-25-bl-p24204.html	10.50 €	10.50 €			
Wires	2.5mm² stranded wire	10 m	1	black	https://www.pollin.de/p/rautronic-silikon-litze-2-5-mm2-schwarz-10-m-563314	10.50 €	10.50 €			
Wires	2.5 mm² stranded wire	10 m	1	red	https://www.pollin.de/p/rautronic-silikon-litze-2-5-mm2-rot-10-m-563313	10.50 €	10.50 €			

Notes	
1	Original product not available any longer (link to replacement part)
2	They need to be pushed through bearings: double-check the tolerances!