

Arduino Step by Step - List of parts and sample sources

I will be updating this list as more lectures are published. The URLs I provide are meant to assist you find components similar to the ones I have used from a vendor close to you. Price is also indicative and is in Australian dollars. In average, 1AUD = 0.80USD.

You can purchase components in bundles from Amazon

Essential components	http://txplore.com/shop/
Motors	http://txplore.com/essential-components/
Control	http://txplore.com/motors-and-related-components/
Sensors	http://txplore.com/shop_control-components/
Interaction	http://txplore.com/shop_sensors-and-relating-components/
Displays	http://txplore.com/shop_interaction/
Communications	http://txplore.com/shop_displays/
External storage	http://txplore.com/shop_communications/
Intergrated circuits and peripheras	http://txplore.com/shop_external-storage/
	http://txplore.com/shop_ics-and-peripherals/

AUD

#	Part name	Description	Available in Store	Sample URL	Value	Comments	In bundles	Which bundle?
1	Resistors	Assorted values	Yes	http://www.ebay.com.au/sch/i.html?_trksid=p2050601.m570.l1313.TR0.TRC0.Xresistors+assorted+1%25&_nkw=resistors+assorted+1%25&_sacat=0&_from=R40	\$3.81	Price for 600 items	Y	Essentials
2	Buttons	push buttons	Yes	http://www.ebay.com.au/itm/100-Pcs-Mini-Micro-Momentary-Tactile-Tact-Switch-Push-Button-DIP-P4-6-6-5mm-New-7190983625993?pt=AU_B_I_Electrical_Test_Equipment&hash=item2c7782d09&uuhb=1	\$1.82	Price for 100 items	Y	Essentials

3	LEDs	Red	Yes	http://www.ebay.com.au/itm/100-PCS-in-1-LED-5MM-Red-Lens-Red-Light-Super-Bright-Light-Emitting-Diodes-Bulb-/271332407610?pt=AU_B_T_Electrical_Test_Equipment&hash=item3f2cabf93a&uhb=1	\$2.07	Price for 100 items	Y	Essentials
4	Jumper wires	Different colours, for breadboard	Yes	http://www.ebay.com.au/itm/P4PM-65PCS-Male-to-Male-Solderless-Breadboard-Jumper-Cable-Wires-for-Arduino-New-/7400451046198?pt=AU_B_T_Electrical_Test_Equipment&hash=item5d3cbe0536&uhb=1	\$2.23	For 65 pieces	Y	Essentials
5	Linear potentiometer	Rotary, small	Yes	http://www.ebay.com.au/itm/10-Pcs-10K-Ohm-Linear-Taper-Rotary-Potentiometer-Panel-B10K-Pot-/121051902297?pt=AU_Electronics_Wholesale_Electronics&hash=item1c2f417159&uhb=1	\$3.99	For 10 pieces	Y	Interaction
6	Flex sensor	Sparkfun	Yes	https://www.sparkfun.com/products/8606	\$13	Single	Y	Interaction
7	Membrane potentiometer	Sparkfun	Yes	https://www.sparkfun.com/products/8680	\$13	Single	Y	Interaction
8	Buzzer	Passive	Yes	http://www.ebay.com.au/sch/i.html?_odkw=membrane+potentiometer&osacat=0&from=R40&trksid=p2045573.m570.11313.1R11.TRC2.A0.Xbuzzer+arduino&nkw=buzzer+arduino&_sacat=0	\$1.13	Single	Y	Interaction

9	DC motor	With gearbox	Yes	http://www.ebay.com.au/itm/JA12-N20-Model-DC-12V-100RPM-Torque-Gearbox-Micro-Gear-Box-Motor-/111224245217?pt=AU_B_T_Electrical_Test_Equipment&hash=item19e57b4be1&uhb=1	\$12	Single	Y	Motors
10	Motor controller board	L298N Dual H Bridge	Yes	http://www.ebay.com.au/sch/i.html?from=R40&trksid=m570.11313&_nkw=L298N+Dual+H+Bridge&_sacat=0	\$3.99	Single	Y	Motors
11	AA battery pack	holds 5 batteries	Yes	http://www.ebay.com.au/itm/121087294434?ssPageName=STRK:MEVNX:IT&trksid=p3984.m1439.12649	\$3.27	Single	Y	Essentials
12	Photoresistors	Multiple	Yes	http://www.ebay.com.au/sch/i.html?_odkw=power+supply++bench+small&_osacat=92074&from=R40&trksid=p2045573.m570.11313.TR0.TRC0.Xphotoresistor&_nkw=photoresistor&_sacat=92074	\$1.8	For 20 pieces	Y	Sensors
13	DHT22	Temperature and humidity sensor	Yes	http://www.ebay.com.au/sch/i.html?_odkw=photoresistor&_osacat=92074&from=R40&trksid=p2045573.m570.11313.TR2.TRC0.A0.XDHT22&_nkw=DHT22&_sacat=92074	\$5.63	Single	Y	Sensors
14	BMP085/BMP180	Barometric pressure sensor	Yes	http://www.ebay.com.au/sch/i.html?_odkw=DHT22&_osacat=92074&from=R40&trksid=p2045573.m570.11313.TR1.TRC0.A0.Xbmp085&_nkw=bmp085&_sacat=92074	\$3.91	Single	Y	Sensors

15	HC-SR501	Passive infrared sensor	Yes	http://www.ebay.com.au/sch/i.html?_o_dkw=bmp085&_osacat=92074&_from=R40&_trksid=p2045573.m570.11313.TR0.TRC0.XHC-SR501&_nkw=HC-SR501&_sacat=92074	\$3.56	Single	Y	Sensors
16	HC-SR04	Ultrasonic distance sensor	Yes	http://www.ebay.com.au/sch/i.html?_o_dkw=HC-SR501&_osacat=92074&_from=R40&_trksid=p2045573.m570.11313.TR0.TRC0.XHC-SR04&_nkw=HC-SR04&_sacat=92074	\$1.69	Single	Y	Sensors
17	ADXL335	Accelerometer	Yes	http://www.ebay.com.au/sch/i.html?_o_dkw=HC-SR04&_osacat=92074&_from=R40&_trksid=p2045573.m570.11313.TR0.TRC0.XADXL335&_nkw=ADXL335&_sacat=92074	\$1.32	Single	Y	Sensors
18	QRE1113	Infrared line sensor	Yes	http://www.ebay.com.au/itm/1PC-New-Infrared-Line-Track-Follower-Sensor-Shield-For-Arduino-/200941218536?pt=AU_B_T_Electrical_Test_Equipment&hash=item2ec907aae8&uuhb=1	\$1.29	Single	Y	Sensors
19	Tilt sensor	Cylinder	Yes	http://www.ebay.com.au/itm/10-PCS-Tilt-Vibration-Switch-Sensor-For-Arduino-DIY-KIT-/251175133688?pt=LH_DefaultDomain_15&hash=item3a7b3461f8&uuhb=1	\$5.98	Set of 10 pieces.	Y	Sensors

20	Arduino Uno	Original or Clone	Yes	http://www.ebay.com.au/sch/i.html?_trksid=p2047675.m570.11313.TR12.TR0.C2.A0.Xarduino+uno&_nkw=arduino+uno&_sacat=0&_from=R40	\$15	Single	Y	Essentials
21	Breadboard	Mini	Yes	http://www.ebay.com.au/itm/160878149785?ssPageName=STRK:MEW NX:IT&_trksid=p3984.m1439.12649	\$2.52	Single	Y	Essentials
22	TFT LCD screen	Shield	Yes	http://www.ebay.com.au/itm/321140720703?ssPageName=STRK:MEW NX:IT&_trksid=p3984.m1439.12649	\$21	Single	Y	Displays
23	Ethernet shield	Includes SD card RW	Yes	http://www.ebay.com.au/sch/i.html?_from=R40&_trksid=m570.11313&_nkw=arduino+Ethernet+shield&_sacat=0	\$9.35	Single	Y	Communications
24	Keypad	4x4 membrane	Yes	http://www.ebay.com.au/itm/300901526362?ssPageName=STRK:MEW NX:IT&_trksid=p3984.m1439.12649	\$1.89	Single	Y	Interaction
25	Bluetooth breakout	Adds capability for wireless serial communication with a computer. Slave module.	Yes	http://www.ebay.com.au/sch/i.html?_trksid=p3998.m570.11313.TR0.TRC0.Xhc-06+bluetooth&_nkw=hc-06+bluetooth&_sacat=0&_from=R40	\$3	Single	Y	Communications
26	Real Time Clock	DFRobot or similar real time clock breakout that contains the DS1307 IC	Yes	http://www.ebay.com.au/sch/i.html?_odkw=DFRobot+DS1307&_osacat=0&_from=R40&_trksid=p2045573.m570.11313.TR0.TRC0.XArduino+DS1307&_nkw=Arduino+DS1307&_sacat=0	\$2	Single	Y	ICs and peripherals
27	Adafruit CC3000 Wifi Module	Provides Wifi capability	Yes	http://www.adafruit.com/products/1469	\$34.95	Single	Y	Communications

28	Basic parallel 16x2 LCD screen	Display character text	Yes	http://www.ebay.com.au/sch/i.html?_o dkw=arduino+lcd+screen&_osacat=0&_from=R40&_trksid=p2045573.m570.11313.TR0.TRC0.Xa rduino+lcd+screen+2x16&_nkw=arduino+lcd+screen+2x16&_sacat=0	\$7.04	Single	Y	Displays
29	1602LCD LCD screen serial interface	Allows for the use of SPI or I2C interface for connecting LCD screens, therefore saving on digital pins.	Yes	http://www.ebay.com.au/sch/i.html?_trksid=p3984.m570.11313.TR0.TRC0.X1602LCD+Display+IIC%2FI2C%2FTWI%2FSP%E2%80%8B%E2%80%8BI+Serial+Interface&_nkw=1602LCD+Display+IIC%2FI2C%2FTWI%2FSP%E2%80%8B%E2%80%8BI+Serial+Interface&_sacat=0&_from=R40	\$1.23	Single	Y	Displays
30	74HC595N	Shift register chip	Yes	http://www.ebay.com.au/sch/i.html?_trksid=p2050601.m570.11313.TR0.TRC0.H0.X74HC595N&_nkw=74HC595N&_sacat=0&_from=R40	\$2	10	Y	ICs and peripherals
31	Capacitors	Capacitors, electrolytic assorted	Yes	http://www.ebay.com.au/sch/i.html?_o dkw=74HC595N&_osacat=0&_from=R40&_trksid=p2045573.m570.11313.TR3.TRC1.A0.H0.Xelec trolytic+capacitor&_nkw=electrolytic+capacitor&_sacat=0	\$8	120	Y	Essentials

32	28BYj-48	Geared stepper motor with controller PCB 5V	Yes	http://www.ebay.com.au/itm/5V-Stepper-Step-Motor-ULN2003-Driver-Test-Module-Controller-Board-For-Arduino-/261364660286?pt=AU_B_I_Electrical_Test_Equipment&hash=item3cda8c383e&uhb=1	\$3	1	Y	Motors
33	12VDC 48 Step	7.5 degree, 48 step motor, 12V	Yes	http://www.ebay.com.au/itm/12VDC-48-Step-7-5-Stepper-Motor-/310869537521?pt=AU_B_I_Electrical_Test_Equipment&hash=item486144b2f1&uhb=1	\$25	1	Y	Motors
34	74HC14	Schmitt trigger IC	Yes	http://www.ebay.com.au/sch/i.html?trksid=p2047675.m570.11313.TR0.TRC0.H0.X74HC14&_nkw=74HC14&_sacat=0&_from=R40	\$ 1.56	5	Y	ICs and peripherals
35	7 segment display	Seven segment display, common anode	Yes	http://www.ebay.com.au/sch/i.html?trksid=p2050601.m570.11313.TR0.TRC0.H0.Xseven+segment+display+anode&_nkw=seven+segment+display+anode&_sacat=0&_from=R40	\$ 7.95	4	Y	Displays
36	Atmega 328P + clock crystal	A kit that contains the Atmega 328P controller, a clock crystal and its ceramic capacitors	No	http://www.ebay.com.au/sch/i.html?from=R40&trksid=p2047675.m570.11313.TR0.TRC0.H0.XAtmega328P+crystal&_nkw=Atmega328P+crystal&_sacat=0	\$ 9.91	1	Y	ICs and peripherals

37	10uF capacitor	100 units of 10uF electrolytic capacitor	Yes	http://www.ebay.com.au/itm/100-pcs-Aluminum-Radial-Electrolytic-Capacitor-10uF-25V-7300553631120?pt=AU_B_I_Electrical_Test_Equipment&hash=item45fa647590&u_hb=1	\$ 5.99	100	Y	Essentials
38	7805 regulator	5 units of the 7805 voltage regulator	Yes	http://www.ebay.com.au/itm/5-pcs-L7805CV-L7805-7805-IC-ICs-Voltage-Regulator-IC-5V-1-5A-Integrated-Circuit-7280835754515?pt=AU_B_I_Electrical_Test_Equipment&hash=item41631d8a13&u_hb=1	\$ 1.40	5	Y	Essentials
39	Breaboard power supply	A convinient 5v/3.3V power supply for the breadboard	Yes	http://www.ebay.com.au/itm/MB102-Breadboard-Power-Supply-Module-3-3V-5V-For-Solderless-Bread-Board-HP-7131004048674?pt=AU_B_I_Electrical_Test_Equipment&hash=item1e80732522&u_hb=1	\$ 1.20	1	Y	Essentials
40	MCP23017	Port expander	Yes		\$3.4	1	Y	Essentials
41	AT24C256	EEPROM	Yes	http://www.ebay.com.au/itm/New-1pcs-AT24C256-I2C-interface-EEPROM-Memory-Module-7111475451282?pt=AU_B_I_Electrical_Test_Equipment&hash=item19f4746592	3.19	1	Y	External Storage

42	NRF250L+	Wireless transceiver modules	Yes	http://www.ebay.com.au/itm/New-2Pcs-NRF24L01-2-4GHz-Antenna-Wireless-Transceiver-Module-For-Arduino-AUL-7390896767122?pt=LH_DefaultDomain_15&hash=item5b03435092	6.98	2	Y	Communications
43	EasyDriver	Motor driver	Yes	http://www.ebay.com.au/itm/Hot-EasyDriver-Shield-Stepping-Stepper-Motor-Driver-Board-V44-A3967-For-Arduino-7111408208135?pt=LH_DefaultDomain_15&hash=item19f0725907	\$2	1	Y	Motors
44	TIP22	Transistor	Yes	http://www.ebay.com.au/itm/New-10pcs-TIP142-TRANSISTOR-NPN-DARLINGTON-100V-10A-7121455474856?pt=LH_DefaultDomain_15&hash=item1c474f78a8	2.63	1	Y	Control
	12V relay	Relay	Yes	http://www.ebay.com.au/itm/Brand-New-DC12V-SRD-12VDC-SL-C-PCB-Type-Mini-Power-Relay-7121447759378?pt=LH_DefaultDomain_15&hash=item1c46d9be12	2.63	5	Y	Control
	5V relay	Relay	Yes	http://www.ebay.com.au/itm/Mini-5V-DC-Coil-Power-Relay-SRD-5VDC-SL-C-PCB-5-Pin-Type-7141310910247?pt=LH_DefaultDomain_15&hash=item20e6c95f27	5.49	10	Y	Control
		Servo motor					Y	Motors

		NEMA motor					Y	Motors
				Total	\$252.88			