|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Component Link | Component library | Quantity | Cost per unit |
| mbed - LPC1768 Development Board | <https://www.amazon.co.uk/gp/product/B004RP3P9M/ref=ox_sc_saved_title_3?smid=AHJUZBLY5C2JK&psc=1> | --- | 1 | £55.00 |
| Single core wires | <https://www.amazon.co.uk/gp/product/B07V5FVSYL/ref=ox_sc_saved_title_7?smid=A1NT6WQ8ILVWN6&psc=1> | --- | 1 | £14.69 |
| Tactile Push Button Switch | <https://www.amazon.co.uk/gp/product/B07RZNVKZ5/ref=ox_sc_saved_title_8?smid=A2RNB4KTLX25K&psc=1> | --- | 1 | £7.99 |
| Power Jack Adapter Connector | <https://www.amazon.co.uk/gp/product/B078W4N9WK/ref=ox_sc_saved_title_2?smid=A2HUKLGHWW8VQE&psc=1> | --- | 1 | £9.99 |
| Resistor Kit Assortment, 0 Ohm-1M Ohm | <https://www.amazon.co.uk/gp/product/B072HR25LW/ref=ox_sc_saved_title_4?smid=AZF7WYXU5ZANW&psc=1> | --- | 1 | £11.99 |
| General Purpose Transistors Assortment Kit | <https://www.amazon.co.uk/gp/product/B07T2VBBLV/ref=ox_sc_saved_title_5?smid=A3JM63OQAICKNV&psc=1> | --- | 1 | £8.99 |
| Battery Holder | <https://www.amazon.co.uk/gp/product/B01FYUUPGE/ref=ox_sc_saved_title_3?smid=A2P9PFGNVPPS3Q&psc=1> | --- | 1 | £7.99 |
| HC-SR04 Ultrasonic Sensor Module | <https://www.amazon.co.uk/Ultrasonic-Rangefinder-Distance-MEGA2560-Raspberry/dp/B089WBKL8F/ref=sr_1_3?dchild=1&keywords=Ultrasonic+Range+Finder&qid=1608238562&sr=8-3> | <https://os.mbed.com/components/HC-SR04/> | 1 | £7.99 |
| Light Emitting Diodes | <https://www.amazon.co.uk/gp/product/B06X3VT6TD/ref=ox_sc_saved_title_1?smid=A1IX7WRB7J03LQ&psc=1> | --- | 1 | £5.39 |
| HD44780 LCD Module displays | <https://www.amazon.co.uk/HD44780-1602-Module-displays-characters/dp/B00WPOUCOI/ref=sr_1_1?dchild=1&keywords=HD44780+Text+LCD&qid=1608239267&sr=8-1> | <https://os.mbed.com/components/HD44780-Text-LCD/> | 1 | £5.49 |
| Breadboard | <https://www.amazon.co.uk/gp/product/B01M0QJTI5/ref=ox_sc_saved_title_2?smid=AZF7WYXU5ZANW&psc=1> | --- | 1 | £8.99 |
| HTU21D Temperature Humidity Sensor | <https://www.amazon.co.uk/Temperature-Humidity-Breakout-1-5V-3-6V-Compatible/dp/B07Y83MR4X/ref=sr_1_5?dchild=1&keywords=SHT21+temperature+and+humidity+sensor&qid=1608239640&sr=8-5> | <https://os.mbed.com/components/HTU21D-Temperature-and-Humidity-Sensor/> | 2 | £6.99 |
| Adafruit FLORA Colour Sensor TCS34725 | <https://www.amazon.co.uk/Adafruit-Colour-Sensor-TCS34725-Onboard/dp/B0131RE5GS/ref=sr_1_1?dchild=1&keywords=Adafruit+TCS34725&qid=1608240636&sr=8-1> | <https://os.mbed.com/components/Adafruit-TCS34725-RGB-Color-Sensor/> | 2 | £10.50 |
| [POLOLU-2457 QTR-3RC](#_Line_follower_sensor:) Reflectance Sensor Array | <https://www.amazon.co.uk/gp/product/B06ZZGPC9N/ref=ox_sc_act_title_1?smid=A19GSHTT314PS3&psc=1> | <https://os.mbed.com/users/phillippsm/code/PololuQTRSensors/> | 3 | £5.00 |
| POLOLU-2836 Pololu 5V Step-Up/Step-Down Voltage Regulator | <https://www.amazon.co.uk/POLOLU-2836-Pololu-Step-Up-Step-Down-Regulator/dp/B071D83BRK/ref=sr_1_2?dchild=1&keywords=POLOLU&qid=1608246389&sr=8-2> | --- | 1 | £7.73 |
| VGA OV7670 0.3 Megapixels CMOS Sensor Camera Module | <https://www.amazon.co.uk/Megapixels-640X480-Compatible-Interface-Arduino-Black/dp/B073WXSCZG/ref=sr_1_3?dchild=1&keywords=OV7670&qid=1608301351&sr=8-3> | <https://os.mbed.com/components/OV7670-Camera/> | 2 | £6.99 |
| Passive Piezo Buzzer Speaker Alarm Module | <https://www.amazon.co.uk/AZDelivery-PCM2704-Microphone-Arduino-Passive/dp/B07DPR4BTN/ref=sr_1_4?dchild=1&keywords=speaker+module&qid=1608302374&sr=8-4> | --- | 1 | £4.99 |
| Audio Speaker | <https://www.amazon.co.uk/Gikfun-Speaker-Stereo-Loudspeaker-Arduino/dp/B01LN8ONG4/ref=pd_sbs_107_10?_encoding=UTF8&pd_rd_i=B01LN8ONG4&pd_rd_r=42fa2025-373f-4c17-9067-05f43a29f526&pd_rd_w=ac6If&pd_rd_wg=H64bn&pf_rd_p=2304238d-df78-4b25-a9a0-b27dc7bd722e&pf_rd_r=QXCHASDPVNZYE3XTVNSB&psc=1&refRID=QXCHASDPVNZYE3XTVNSB> | --- | 1 | £8.98 |
| SparkFun Bluetooth Modem | <https://www.amazon.co.uk/SparkFun-Bluetooth-Modem-BlueSMiRF-Silver/dp/B01AIEB4IO/ref=sr_1_6?dchild=1&keywords=RN-42+Bluetooth+Module&qid=1608302888&sr=8-6> | <https://os.mbed.com/components/RN-42-Bluetooth-Module/> | 1 | £52.12 |
| Piezo Electronic Buzzer | <https://www.amazon.co.uk/AZDelivery-PCM2704-Microphone-Arduino-Passive/dp/B07DPR4BTN/ref=sr_1_58?dchild=1&keywords=buzzer&qid=1608303122&sr=8-58> | --- | 1 | £4.99 |

## Line follower sensor:

Product: POLOLU-2457 QTR-3RC Reflectance Sensor Array/FBA

Manufacturing listing: <https://www.pololu.com/product/2457/resources>

Amazon listing: <https://www.amazon.co.uk/gp/product/B06ZZGPC9N/ref=ox_sc_act_title_1?smid=A19GSHTT314PS3&psc=1>

Mbed library: <https://os.mbed.com/users/phillippsm/code/PololuQTRSensors/>

Project: <https://www.pololu.com/blog/307/david-and-fangs-dead-reckoning-robot-based-on-the-mbed-lpc1768>

Application: <https://www.pololu.com/docs/0J22>