| ITEM | QTY | DESCRIPTION | VENDOR | LINK | UNIT COST | EXTENDED COST | ALTERNATE | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | Robot Controller PCB | OSHPark | https://oshpark.com/orders/nxFe79w | $53.35 | $53.35 | | Must purchase 3 boards for $53.35 |
| 2 | 1 | Particle Photon with headers | Particle | https://www.amazon.com/Particle-Reprogrammable-Development-Prototyping-Electronics/dp/B016YNU1A0?ref_=bl_dp_s_web_14204923011 | $19.00 | $19.00 | | |
| 3 | 2 | Female header, 12 position | Pololu | https://www.pololu.com/product/1030 | $0.79 | $1.58 | https://www.digikey.com/product-detail/en/sullins-connector-solutions/PPPC121LFBN-RC/S7045-ND/810184 | |
| 4 | 1 | 74HC595 shift register, 16 pin DIP | Sparkfun | https://www.sparkfun.com/products/13699 | $0.95 | $0.95 | https://www.digikey.com/products/en/integrated-circuits-ics/logic-shift-registers/712?k=74ahc595&k=&pkeyword=74ahc595&sv=0&pv7=6&s=435&pv16=6512&sf=1&quantity=&ColumnSort=0&page=1&pageSize=25 | |
| 5 | 1 | IC DIP socket, 16 pin | Sparkfun | https://www.sparkfun.com/products/7938 | $0.50 | $0.50 | https://www.digikey.com/product-detail/en/on-shore-technology-inc/ED16DT/ED3046-5-ND/4147596 | |
| 6 | 1 | 74AHCT125 level converter, 14 pin DIP | Digikey | https://www.digikey.com/products/en/integrated-circuits-ics/logic-buffers-drivers-receivers-transceivers/704?k=74ahct125&k=&pkeyword=74ahct125&sv=0&pv7=6&s=465&pv16=6510&sf=1&quantity=&ColumnSort=0&page=1&pageSize=25 | $0.40 | $0.40 | | |
| 7 | 1 | IC DIP socket, 14 pin | Sparkfun | https://www.sparkfun.com/products/7939 | $0.50 | $0.50 | https://www.digikey.com/product-detail/en/on-shore-technology-inc/ED14DT/ED3045-5-ND/4147595 | |
| 8 | 1 | TB6612FNG dual motor driver module | Pololu | https://www.pololu.com/product/713 | $3.33 | $3.33 | https://www.sparkfun.com/products/14450 | |
| 9 | 2 | Female header, 8 position | Pololu | https://www.pololu.com/product/1018 | $0.59 | $1.18 | https://www.digikey.com/product-detail/en/sullins-connector-solutions/PPPC081LFBN-RC/S7041-ND/810180 | |
| 10 | 1 | 5 volt step-up/step-down voltage regulator; S9V11F5 | Pololu | https://www.pololu.com/product/2836 | $5.95 | $5.95 | | |
| 11 | 1 | Female header, 3 position | Pololu | https://www.pololu.com/product/1013 | $0.34 | $0.34 | https://www.digikey.com/product-detail/en/sullins-connector-solutions/PPPC031LFBN-RC/S7036-ND/810175 | Must purchase mimimum of 5 connectors from Pololu |
| 12 | 1 | Bluetooth Module, HC-05 | Amazon (HiLetGo) | https://www.amazon.com/gp/product/B071YJG8DR/ref=ppx_yo_dt_b_asin_title_o02_s00?ie=UTF8&psc=1 | $8.95 | $8.95 | | |
| 13 | 1 | Female header, 6 position | Pololu | https://www.pololu.com/product/1016 | $0.49 | $0.49 | https://www.digikey.com/product-detail/en/sullins-connector-solutions/PPPC061LFBN-RC/S7039-ND/810178 | Must purchase minimum of 2 connectors from Pololu |
| 14 | 1 | Male breakable header; 0.1" pitch; 40 position | Sparkfun | https://www.sparkfun.com/products/116 | | $0.00 | https://www.digikey.com/product-detail/en/wurth-electronics-inc/61304011121/732-5334-ND/4846884 | For connecting ultrasonic distance sensor, HC-SR04; need 12 pins total |
| 15 | 1 | LED, 5 MM | Sparkfun | https://www.sparkfun.com/products/9592 | $0.35 | $0.35 | | Green LED is preferred but any color will do |
| 16 | 1 | Resistor, 470 ohm (footprint: 0207/10) | Digikey | https://www.digikey.com/product-detail/en/stackpole-electronics-inc/CF14JT470R/CF14JT470RCT-ND/1830342 | $0.10 | $0.10 | | |
| 17 | 2 | Capacitor, 100 uF; footprint E2, 5-6E | Sparkfun | https://www.sparkfun.com/products/96 | $0.35 | $0.70 | https://www.digikey.com/products/en?keywords=P10269-ND | Electrolytic, min 20 volt rating, 0.1" center-center lead pitch |
| 18 | 11 | Capacitor, 0.1 uF; footprint C025-024X044 | Sparkfun | https://www.sparkfun.com/products/8375 | $0.25 | $2.75 | https://www.digikey.com/product-detail/en/kemet/C315C104M5U5TA/399-4151-ND/817927 | Ceramic, min 10 volt rating, 0.1" center-center lead pitch |
| 19 | 3 | PCB screw terminal, 2 position, 3.5 mm pitch | Sparkfun | https://www.sparkfun.com/products/8084 | $0.95 | $2.85 | https://www.pololu.com/product/2444 | https://www.digikey.com/product-detail/en/wurth-electronics-inc/691214110002/732-2747-ND/2508516 |
| 20 | 1 | PCB mount switch, SPDT (11.6x4.0 mm) | Sparkfun | https://www.sparkfun.com/products/9609 | $0.75 | $0.75 | https://www.pololu.com/product/1408 | https://www.digikey.com/product-detail/en/nkk-switches/SS12SDP4/360-2922-ND/1054800 |
| | | **TOTAL** | | | | **$104.02** | | |