## Bill of Materials for PCB-based IV Swinger 2

Relay Type

PV type PV cell

SSR

| Danadatian   | O                                       | Name (a) a DOD    | Unite Differ  | Takal D.   | Donald and Edit   | N  |
|--|---|-------------------|---|--|---|--|
| Description  | Quantity                                | Name(s) on PCB    | Unit Price  |  | Purchase From   | Notes  |
| 10-pin stackable female header   | 1                                       | A1                | On-PCB  | parts  |   | Purchased as a kit of all four. Note, however, that A4 is no   |
| 8-pin stackable female header  | 2                                       | A2, A3            | \$1.50  | ¢1 50  | Digi-Key  | needed at all, and A1 can be 8-pin instead of 10-pin (pins   |
| 6-pin stackable female header  | 0                                       | AZ, A3<br>A4      | \$1.50  | \$1.50   | Digi-Key  | 1 ' ' '  |
| 22000µF 6.3V capacitors  | 2                                       | C1, C2            | \$2.22  | ¢4.44  | Digi-Key  | and 10 are not used). Digi-Key PN: 1568-1413-ND Digi-Key PN: 493-12454-ND  |
| 0.1µF capacitor  | 2                                       |                   | \$0.28  |  | Digi-Key<br>Digi-Key  |  |
| U.TµF Capacitor  |   | C3, C6            | \$0.20  | \$0.36   | Digi-Key  | Op amp and ADC Vdd filter. Digi-Key PN: BC2665CT-ND  |
| 2.2nF (2200 pF) capacitor  | 2                                       | C4, C5            | \$0.35  | \$0.70   | Digi-Key  | Voltmeter and ammeter op amp circuits. Digi-Key PN: 399  |
|  | +                                       |                   |   |  |   | 4166-ND  |
| A sets Consola basedon   |   |                   | <b>#0.47</b>  | <b>#0.47</b>   | Dist Kee  | Extra +5V and GND for temperature and irradiance senso   |
| 4-pin female header  | 1                                       | FH                | \$0.47  | \$0.47   | Digi-Key  | Can be omitted if no plans for those (or can be added late   |
|  |   |                   |   |  |   | Digi-Key PN: S7037-ND  |
|  | ا ا                                     |                   |   |  |   |  |
| 2-pin screw-terminal block   | 2                                       | J1, J2            | \$0.96  | \$1.92   | Digi-Key  | Digi-Key PN: A97996-ND   |
|  |   |                   |   |  |   |  |
| 8-pin DIP socket (optional)  | 2                                       | MCP3202,          | \$0.47  | \$0.94   | Digi-Key  | IC sockets. Recommended so ICs can be replaced more  |
|  |   | TLV2462           |   |  |   | easily. Digi-Key PN: 1212-1003-ND  |
| ADC - MCP3202  | 1                                       | MCP3202           | \$2.98  |  | Digi-Key  | Digi-Key PN: MCP3202-BI/P-ND   |
| Op amp - TLV2462   | 1                                       | TLV2462           | \$2.67  |  | Digi-Key  | Ammeter. Digi-Key PN: 296-1892-5-ND  |
| Not present in cell version  | 0                                       | R1                | \$0.01  |  | Amazon  | Voltmeter - divider  |
| Not present in cell version  | 0                                       | R2                | \$0.01  |  | Amazon  | Voltmeter - divider  |
| 1kΩ resistor - 1/4W  | 3                                       | R3, R4, RG        | \$0.01  |  | Amazon  | Voltmeter and ammeter op amp circuits, relay input   |
| 22kΩ resistor - 1/4W   | 1                                       | R5                | \$0.01  | \$0.01   | Amazon  | Arduino output pull-ups  |
| 180Ω resistor - 1/4W   | 4                                       | R6, R9, R10, R11  | \$0.01  | \$0.03   | Amazon  | SSR pull up/downs  |
| 75kΩ resistor - 1/4W   | 1                                       | RF                | \$0.01  | \$0.01   | Amazon  | Ammeter - op amp circuit   |
| 680kΩ resistor - 1/4W  | 1                                       | RF1               | \$0.01  |  | Amazon  | Ammeter - op amp circuit   |
|  |   |                   | 77.7  | 70.0   |   | Bleed resistor. Needs to be able to handle 6.4J pulse ene  |
| Not present in cell version  | 0                                       | RB                | \$0.78  | \$0.00   | Digi-Key  | (for 80V Voc; less for lower Voc: 0.5 * 0.002F * Voc^2). D   |
|  |   |                   |   |  |   | Key PN:PPC5W47.0CT-ND  |
| 0.005Ω shunt resistor  | 1                                       | SHUNT             | \$2.12  | ¢2 12  | Digi-Key  | Ammeter. Digi-Key PN: LVRB005RCT-ND  |
| 2-pin header   | + '                                     | JP                | \$0.13  |  | Digi-Key<br>Digi-Key  | Low current jumper header. Digi-Key PN: 732-5315-ND  |
| x1 DIP switch  | + '                                     | JP                | \$0.13  |  | Digi-Key<br>Digi-Key  | Low current jumper header. Digi-Ney FN. 732-3313-ND  |
|  | 1                                       |                   |   |  | · ·   |  |
| 2-pin jumper   | - '                                     | OFF=LO_CUR        | \$0.88  | \$0.88   | Digi-Key  | Alternate to jumper. Digi-Key PN: 732-3831-5-ND  |
| CPC1718J   | 4                                       | SSR1, SSR4, SSR5, | \$6.55  | \$26.20  | Digi-Key  | Solid State Relays (SSRs). Digi-Key PN: CLA315-ND  |
|  |   | SSR6              | ,   |  | 3 - 3   | 3 2, 3 2 2   |
|  |   |                   |   |  |   |  |
|  |   |                   |   |  |   |  |
| 1550045 Schottky hypass diode  | 1                                       | D1 D2             | \$0.65  | \$0.65   | Digi-Key  | Reverse connection bypass diode. Connect between pads  |
| 15SQ045 Schottky bypass diode  | 1                                       | D1,D2             | \$0.65  | \$0.65   | Digi-Key  | Reverse connection bypass diode. Connect between pads D1 and D2. Digi-Key PN: 1655-1354-1-ND   |
| 15SQ045 Schottky bypass diode  | 1                                       | D1,D2             | \$0.65  | \$0.65   | Digi-Key  |  |
| 15SQ045 Schottky bypass diode  | 1                                       | D1,D2             |   |  | Digi-Key  |  |
| 15SQ045 Schottky bypass diode  | 1                                       | D1,D2             | \$0.65  |  | Digi-Key  | D1 and D2. Digi-Key PN: 1655-1354-1-ND   |
| 15SQ045 Schottky bypass diode  Arduino Uno clone   | 1                                       | D1,D2             |   | parts  | Digi-Key Amazon   | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with U   |
| Arduino Uno clone  | 1                                       | D1,D2             | Off-PCB<br>\$10.86  | parts<br>\$10.86   | Amazon  | D1 and D2. Digi-Key PN: 1655-1354-1-ND   |
| Arduino Uno clone Donation to arduino.cc   | 1 1                                     | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00  | parts<br>\$10.86<br>\$5.00   | Amazon<br>arduino.cc  | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with U Cable Compatible With Arduino UNO R3  |
| Arduino Uno clone  | 1                                       | D1,D2             | Off-PCB<br>\$10.86  | parts<br>\$10.86<br>\$5.00   | Amazon  | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with U Cable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  |
| Arduino Uno clone Donation to arduino.cc   | 1 1                                     | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00  | parts<br>\$10.86<br>\$5.00   | Amazon<br>arduino.cc  | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with U Cable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND SunFounder 2 Channel DC 5V Relay Module with   |
| Arduino Uno clone Donation to arduino.cc   | 1 1                                     | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00  | parts<br>\$10.86<br>\$5.00<br>\$7.38   | Amazon<br>arduino.cc  | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with Ucable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu  |
| Arduino Uno clone  Donation to arduino.cc  Binding posts   | 1 1 2                                   | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69  | parts<br>\$10.86<br>\$5.00<br>\$7.38   | Amazon<br>arduino.cc<br>Digi-Key  | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with Ucable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32  |
| Arduino Uno clone  Donation to arduino.cc  Binding posts   | 1 1 2                                   | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69  | parts<br>\$10.86<br>\$5.00<br>\$7.38   | Amazon<br>arduino.cc<br>Digi-Key  | D1 and D2. Digi-Key PN: 1655-1354-1-ND  Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with Ucable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi   |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version   | 1 1 2 0                                 | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79  | \$10.86<br>\$5.00<br>\$7.38  | Amazon<br>arduino.cc<br>Digi-Key<br>Amazon  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding pos   |
| Arduino Uno clone  Donation to arduino.cc  Binding posts   | 1 1 2                                   | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69  | \$10.86<br>\$5.00<br>\$7.38  | Amazon<br>arduino.cc<br>Digi-Key  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of   |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version   | 1 1 2 0                                 | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79  | \$10.86<br>\$5.00<br>\$7.38  | Amazon<br>arduino.cc<br>Digi-Key<br>Amazon  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with L Cable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding pos  |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version  18ga solid wire or zip cord  | 1 1 2 0                                 | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00  | Amazon arduino.cc Digi-Key Amazon Amazon  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post o PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version   | 1 1 2 0                                 | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00  | Amazon<br>arduino.cc<br>Digi-Key<br>Amazon  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post o PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  |
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| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version  18ga solid wire or zip cord  | 1 1 2 0                                 | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96  | Amazon arduino.cc Digi-Key Amazon Amazon  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male to   |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors   | 1<br>1<br>2<br>0                        | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96  | Amazon arduino.cc Digi-Key Amazon Amazon Digi-Key   | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male 1  |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors   | 1<br>1<br>2<br>0                        | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96  | Amazon arduino.cc Digi-Key Amazon Amazon Digi-Key   | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male Female Solderless Ribbon Dupont Jumper Wires (4 and 8)   |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors   | 1<br>1<br>2<br>0                        | D1,D2             | Off-PCB<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96<br>\$0.80  | Amazon arduino.cc Digi-Key Amazon Amazon Digi-Key   | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with Cable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male Female Solderless Ribbon Dupont Jumper Wires (4 and 8  |
| Arduino Uno clone  Donation to arduino.cc Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors  Not present in SSR version  | 1<br>1<br>2<br>0                        | D1,D2             | \$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96<br>\$0.20   | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96<br>\$0.80  | Amazon arduino.cc Digi-Key Amazon Amazon Digi-Key   | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male Female Solderless Ribbon Dupont Jumper Wires (4 and 8)   |
| Arduino Uno clone  Donation to arduino.cc  Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors  Not present in SSR version  Ultra Pro Baseball Clear Square Holder StarTech PC Mounting Computer Screws M3 x   | 1 1 2 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 | D1,D2             | \$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96<br>\$0.20<br>\$n.07   | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96<br>\$0.80<br>\$0.00  | Amazon  arduino.cc Digi-Key  Amazon  Digi-Key  Amazon  Amazon   | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male if Female Solderless Ribbon Dupont Jumper Wires (4 and 8 Inch) for Breadboard Prototyping  |
| Arduino Uno clone  Donation to arduino.cc Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors  Not present in SSR version  Ultra Pro Baseball Clear Square Holder StarTech PC Mounting Computer Screws M3 x 1/4-Inches Long Standoff - 50 Pack SCREWM3   | 1 1 2 0 0 1 1 4 0 0                     | D1,D2             | \$10.86<br>\$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96<br>\$0.20  | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96<br>\$0.80<br>\$0.00  | Amazon arduino.cc Digi-Key Amazon Amazon Digi-Key Amazon  | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post to PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male t Female Solderless Ribbon Dupont Jumper Wires (4 and 8)   |
| Arduino Uno clone  Donation to arduino.cc Binding posts  Not present in SSR version  18ga solid wire or zip cord  Cable ring connectors  Not present in SSR version  Ultra Pro Baseball Clear Square Holder  StarTech PC Mounting Computer Screws M3 x 1/4-Inches Long Standoff - 50 Pack SCREWM3  8mm Body Long M3 Male Female Brass Pillar   | 1 1 2 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 | D1,D2             | \$10.86<br>\$5.00<br>\$3.69<br>\$6.79<br>\$0.96<br>\$0.20<br>\$0.07   | \$10.86<br>\$5.00<br>\$7.38<br>\$0.00<br>\$0.96<br>\$0.80<br>\$0.00<br>ure<br>\$5.75<br>\$0.41                     | Amazon arduino.cc Digi-Key Amazon Digi-Key Amazon Amazon Amazon   | Elegoo UNO R3 Board ATmega328P ATMEGA16U2 with UCable Compatible With Arduino UNO R3  Digi-Key PN: 501-1713-ND  SunFounder 2 Channel DC 5V Relay Module with Optocoupler Low Level Trigger Expansion Board for Ardu UNO R3 MEGA 2560 1280 DSP ARM PIC AVR STM32 Raspberry Pi  For load circuit wires: MC-4 to binding posts, binding post or PCB. Scrap appliance cord is fine. Just want a heavier of than hookup wire.  Binding post internal connections. Digi-Key PN: 277-1115 ND  Relay to stack connector wires. GenBasic 80 Piece Male to Female Solderless Ribbon Dupont Jumper Wires (4 and 8 lnch) for Breadboard Prototyping  |
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