

| Quantity | Value  | Type               | Package | Part Numbers             | Source          | Source Part #  | Comments  |
|----------|--|--------------------|---------|--------------------------|-----------------|--|---|
| 1        | 0.025 ohm 1%   | Kelvin resistor    |         | R4                       | Digikey         | FC4L64R025FERCT-ND   | Ohmite FC4L64R025FER  |
| 4        | 3.3K 5% 1/10W  | Resistor           | 0603    | R1, R2, R3, R8           | Digikey         | 311-3.3KGRCT-ND  | Can merge part number with the 3.3K 1% above.   |
| 3        | 10k 5% 1/10W   | Resistor           | 0603    | R5, R6, R7               | Digikey         | 311-10KGRCT-ND   | Generic part  |
| 2        | 20pF 50V 5%  | Ceramic capacitor  | 0603    | C9, C10                  | Digikey         | 311-1424-1-ND  | Generic part  |
| 4        | 0.1uF 10% 25V  | Ceramic capacitor  | 0603    | C3, C5, C6, C7, C8       | Digikey         | 311-1344-1-ND  | Generic part. May need to reduce C7 if interferes with ICSP reset (e.g. to 0.01)  |
| 3        | 1uF 16V 5%   | Ceramic capacitor  | 6030    | C1, C11, C12             | Digikey         | 445-1604-1-ND  | Generic part  |
| 2        | 10uF 10% 16V   | Tantalum Capacitor | 1206    | C2, C4                   | Digikey         | 399-3684-1-ND  | Generic part  |
| 1        | Heltec 1.3" SPI 128X64 OLED WHITE monochrome display with RST pin. | OLED               |         | OLED                     | Heltec or eBay. | <a href="http://www.heltec.diytrade.co">http://www.heltec.diytrade.co</a> or <a href="http://r.ebay.com/bVQ2CY">http://r.ebay.com/bVQ2CY</a> | Must have SSD1306 controller and these 6 pins: GND, VCC, SCL, SDA, RST, D/C (picture here <a href="http://i.imgur.com/y3cWazS.jpg">http://i.imgur.com/y3cWazS.jpg</a> ). Manufacturer is <a href="http://www.heltec.cn">http://www.heltec.cn</a> . Heltec also similar blue models (with sh1063 controller) and 'new' models with different 6 pins (VCC and GND swapped, no RST pin), these two models are incompatible with the current POWER PLAY design. |
| 1        | 16Mhz  | Crystal            |         | Q1                       | Digikey         | CTX732CT-ND  | CTS 403 Series, 20pF.   |
| 1        | ATMEGA328P   | IC                 | TQFP32  | U3                       | Digikey         | ATMEGA328P-AURCT-ND  | Atmel AVR328P   |
| 1        | FT232RL  | IC                 | SSOP28  | U2                       | Digikey         | 768-1007-1-ND  |   |
| 1        | LTC2943  | IC                 | DFN8    | U1                       | Digikey         | LTC2943CDD#PBF-ND  | Adjustable LDO 3A.  |
| 1        | TC1015   | IC                 | SOT23-5 | U4                       | Digikey         | TC10154.0VCT713CT-ND   | Fixed LDO 4.0V.   |
| 1        | Push button  | Button             |         | S1                       | Digikey         | P12197S-ND   | Panasonic EVQ-PAG09K  |
| 2        | 1 position, 0.1", straight   | Header             |         | OLED mechanical support. | Digikey         | S1011E-36-ND   | Generic part. Height above board should be at most 8.5mm. The part number here is for a 36 position breakable strip so it can be used for multiple boards.  |
| 2        | Micro USB 'reversed' connector                                     | Connector          |         | J1,J2                    | Digikey         | H11611CT-ND  | Hirose ZX62RD-AB-5P8. Make sure it is a 'reversed' connector, otherwise the signals will be in reversed order.  |
| 1        | USB A connector  | Connector          |         | J3                       | Digikey         | WM7087TR-ND  | Molex 48258-0002  |
| 1        | PCB  | Custom PCB         |         |                          | Generic         | Generic  | Order the PCB from your favorite PCB manufacturer (2 layers, 60x60mm). Make sure to order a SMD stencil, preferably 5mil stainless steel but even a 5 mil stencil from oshstencils.com should work.   |
| 1        | Top cover  | Custom hardware    |         |                          | Ponoko          | Custom   | Laser cut fluorescent green 1/8" acrylic.   |
| 1        | Bottom Cover   | Custom hardware    |         |                          | Ponoko          | Custom   | Laser cut fluorescent green 1/8" acrylic.   |
| 4        | M3x6mm, pan head, philips machine screw                            | Hardware           |         |                          | Digikey         | 335-1156-ND  | Top cover screws  |
| 4        | M3x10mm, pan head, philips machine screw                           | Hardware           |         |                          | Digikey         | 335-1148-ND  | Bottom cover screws   |
| 4        | M3x6mm, round, threaded, female/female metal standoff              | Hardware           |         |                          | Digikey         | 952-1515-ND  | Top cover standoff  |
| 4        | M3x3mm,round, non threaded nylon or metal spacer                   | Hardware           |         |                          | Digikey         | 952-1526-ND  | Bottom cover spacer   |