

BOM

| Line Item | Qty | Part | Value | Package | Description | MFG part# |
|---------------------------------------|-----|--|-----------------------|-----------------------|------------------------------|--------------------------------------|
| SURFACE MOUNT (SMD) PARTS LIST | | | | | | |
| 1 | 8 | R1, R2, R3, R4, R5, R6, R11, R12 | 0.27Ω | R1210 | Resistor | MCR25JZHFLR270 |
| 2 | 6 | R7, R8, R9, R29, R30, R31 | 100Ω | 0603-RES | Resistor | RC0603JR-07100RL |
| 3 | 14 | R15, R17, R18, R19, R20, R21, R22, R23, R24, R26, R27, R28, R34, R35 | 1kΩ | 0603-RES | Resistor | RC0603JR-071KL |
| 4 | 11 | R10, R13, R14, R16, R25, R32, R33, R36, R37, R38 | 4.7kΩ | 0603-RES | Resistor | RC0603JR-074K7L |
| 5 | 4 | VR1,VR2,VR3,VR4 | 10kΩTrimmer | TRIMMER-23A | 10K Trim Pot | 23AR10KLFTR |
| 6 | 4 | C5,C7,C9,C19 | 0.01uF | 0603-CAP | Ceramic Capacitor | C0603C103K5RACTU |
| 7 | 15 | C4, C6, C8, C11, C14, C17, C18, C20, C21, C24, C26, C27, C28, C29, C30 | 0.1uF | 0603-CAP | Ceramic Capacitor | CL10F104Z08NNNC |
| 8 | 4 | C10,C12,C13,C23 | 0.47uF | 0603-CAP | Ceramic Capacitor | CL10B474KQ8NNNC |
| 9 | 8 | C1, C2, C3, C15, C16, C25, C32, C33 | 4.7uF | C1210 | Ceramic Capacitor | CL32B475KBUYNNE |
| 10 | 4 | D1, D2, D3, D4 | BAT54C | SOT23 | Diode (1pr Comm Cathode) | BAT54C |
| 11 | 4 | LED2,PWR-5V,TX,TX1 | GREEN | LED-0603 | Green LED's | LG Q971-KN-1 |
| 12 | 5 | CEN,SEN,SDR,RX,RX(XB) | YELLOW | LED-0603 | Yellow LED's | LY Q976-P1S2-36 |
| 13 | 1 | Y1 | 16MHz | RESONATOR-SMD | 16MHz Resonator | CSTCE16M0V53-R0 |
| 14 | 4 | IC1,IC2,IC3,IC5 | DRV88251 | HTSSOP28PWP | Stepper Driver | DRV8825PWP |
| 15 | 1 | IC4 | ATMEGA328 | TQFP32-08 | Atmega 32P | ATMEGA328P-AUR |
| 16 | 1 | U2 | SPDT | 10MSOP | IC SWITCH DUAL SPDT | TS5A23157DGSR |
| 17 | 1 | U\$6 | 5V @500mA | SOT223 | IC REG LDO 5V 0.5A | UA78M05CDCY |
| 18 | 1 | U\$7 | 3V3 @500mA | SOT223 | IC REG LDO 3.3V 0.5A | UA78M33CDCY |
| 19 | 1 | IC6 | FT232RLSSOP | SSOP28DB | USB to UART | FT232RL-REEL |
| 20 | 1 | Q1 | MOSFET-N | SOT23-3 | NFET | 2N7002TP |
| 21 | 3 | F1, F2, F3 | 200mA Hold 400mA Trip | PTC-1206 | 200mA PTC Fuse (30V) | 0ZCJ0020FF2E |
| 22 | 1 | JP3 | M05X2SMD | 2X5-SMD SHROUD | IDC Header (Opt) | AWHHW10-G-SMD-R |
| 23 | 1 | RESET | mom-SPST-NO | TACTILE SWITCH SMD | Mom PB Switch | RS-187R05A2-DS MT RT |
| 24 | 2 | Xbee/Wifi/Bluetooth connector 2mm x 10s | | | 2mm x10p Headers | NPPN101BFLD |
| THROUGH-HOLE COMPONENTS | | | | | | |
| 25 | 1 | J1 | | ATX 24p VERT | ATX Connector | 442060007 |
| 26 | 1 | AOUT | | SCREWTERMINAL-3.5mm-4 | 4p 3.5mm Term Strip | OSTTE040104 |
| 27 | 3 | XOUT,YOUT,ZOUT | | SCREWTERMINAL-3.5mm-6 | 6p 3.5mm Term Strip | OSTTE060104 |
| 28 | 1 | JP11 | | SCREWTERMINAL-3.5mm-9 | 9p 3.5mm Term Strip | OSTTE090104 |
| 29 | 1 | JP12 | | SCREWTERMINAL-5mm-2 | 2p 5mm Term Strip | 1935161 |
| 30 | 4 | JP5, JP8, JP9, JP10 | | 4p Header-2.54mm | (OPTIONAL) 4p Stepper Header | M20-9990445 |
| 31 | 1 | USB | | USB-B-PTH | USB B Jack | USB-B1HSB6 |
| 32 | 5 | XSTEP,YSTEP,ZSTEP,ASTEP,ISP | | 2x3p Header-2.54mm | 2x3p Jumper (male) | M20-9980346 |
| 33 | 12 | MISC PARTS | N/A | N/A | Jumpers for STEP | 969102-0000-DA |