

Bill of Materials for: Team 20

Last Modified: 11/12/2020

PCB version: design\_v2

BOM revision: 1

| Cnt | Parts  | P/NP | Mfg                | Mfg PN                 | Description   | Dist     | Dist Part Number     | Cost Ea | Cost Total |
|-----|--------|------|--------------------|------------------------|---|----------|----------------------|---------|------------|
| 1   | U1     | P    | Atmel              | ATMEGA328P-PU          | 8-bit Microcontrollers - MCU 32KB In-system Flash 20MHz 1.8V-5.5V                 | Mouser   | 556-ATMEGA328P-PU    | \$2.08  | \$2.08     |
| 1   | Y1     | P    | TXC Corp           | 9B-16.000MEEJ-B        | Crystals 16.000MHz 10ppm -20 +70C 18pF  | Mouser   | 717-9B-16.000MEEJ-B  | \$0.48  | \$0.48     |
| 1   | J4     | P    | Sparkfun           | PRT-12748              | SparkFun Accessories DC Barrel Power Jack Connector SMD                           | Mouser   | 474-PRT-12748        | \$1.50  | \$1.50     |
| 1   | IC1    | P    | STMicroelectronics | LM317T                 | Linear Voltage Regulators 1.2-37V Adj Positive 1.5 Amp Output                     | Mouser   | 511-LM317T           | \$0.64  | \$0.64     |
| 2   | C7, C8 | P    | TDK                | C2012X5R1V106K085AC    | Multilayer Ceramic Capacitors MLCC - SMD/SMT RECOMMENDED ALT 810-C2012X5R1V106K1C | Mouser   | 810-C2012X5R1V106K0C | \$0.38  | \$0.76     |
| 2   | C1, C2 | P    | KEMET              | C0805C220G5GAC TU      | Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 22pF C0G 0805 0.02               | Mouser   | 80-C0805C220G5G      | \$0.42  | \$0.84     |
| 1   | C3     | P    | KEMET              | C0805X104M5RAC TU      | Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.1uF X7R 0805 20%               | Mouser   | 80-C0805X104M5RAC TU | \$0.52  | \$0.52     |
| 1   | R2     | P    | ROHM               | SFR10EZPJ103           | Thick Film Resistors - SMD 10Kohm 0805 5%   | Mouser   | 755-SFR10EZPJ103     | \$0.11  | \$0.11     |
| 1   | S1     | P    | C&K                | PTS645SK50JSMT R92 LFS | Tactile Switches 50mA 12VDC, SPST NO, 260 gf, 5.0mm H, SMT J-type                 | Mouser   | 611-SK50JSMTR92LFS   | \$0.41  | \$0.41     |
| 1   | J1     | P    | Adafruit           | 1465                   | ADAPTER MINI KIT BB AVR ISP 6PIN  | Digi-Key | 1528-1189-ND         | \$0.95  | \$0.95     |
| 1   | J2     | P    | Wurth Elektronik   | 61300611121            | CONN HEADER VERT 6POS 2.54MM  | Digi-Key | 732-5319-ND          | \$0.33  | \$0.33     |

|        |    |     |          |           |   |        |               |         |         |
|--------|----|-----|----------|-----------|---|--------|---------------|---------|---------|
| 1      | M1 | N/P | Sparkfun | ROB-12625 | SparkFun Accessories Servo - Hitec HS-755HB (1/4 Scale) | Mouser | 474-ROB-12625 | \$39.94 | \$39.94 |
| 1      | U4 | N/P | MCM      | 287-18001 | PIR motion detector module                              | Newark | 25AC5060      | \$2.99  | \$2.99  |
| Total: |    |     |          |           |   |        |               | \$51.55 |         |

| VERSION INFO |            |              |
|--------------|------------|--------------|
| Rev          | Date       | Notes        |
| 1.0          | 2020-11-12 | Initial BOM. |