**Bill of Materials**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Part | Link | Quantity | Price | Total Price |
| Manual Hole Disk | | | | $1.04 |
| PLA | [Link](https://www.printedsolid.com/) | 52 grams | $0.02/gram | $1.04 |
| Casing | | | | TBD |
| Power Supply | | | | $10.67 |
| Battery Holder | [Link](https://www.jameco.com/z/BH-9V-A-R-Jameco-Reliapro-9V-Battery-Holder-with-6-Inch-Wires_216427.html) | 1 | $0.89 | $0.89 |
| Power Switch | [Link](https://www.jameco.com/z/R13-66A-B-02-R-Jameco-Valuepro-Rocker-Switch-R13-66-Amp-B-02-Single-Pole-Single-Throw-10-Amp-On-Off-Black_316014.html) | 1 | $0.99 | $0.99 |
| 9V Battery | [Link](https://www.jameco.com/z/ALK-9V-522-Energizer-Batteries-9V-Energizer-reg-Alkaline-Battery_198731.html) | 1 | $2.25 | $2.25 |
| BA70BC0T (Voltage Regulator) | [Link](https://www.digikey.com/en/products/detail/rohm-semiconductor/BA70BC0T/722285?s=N4IgTCBcDaIEIEEDsAGOBhFAVEBdAvkA) | 1 | $2.06 | $2.06 |
| LM7805 (Voltage Regulator) | [Link](https://www.digikey.com/en/products/detail/texas-instruments/LM7805CT-NOPB/3901929) | 1 | $1.54 | $1.54 |
| LD1117V33C (Voltage Regulator) | [Link](https://www.digikey.com/en/products/detail/stmicroelectronics/LD1117V33C/586013) | 1 | $0.55 | $0.55 |
| 1N5818 Schottky Diode | [Link](https://www.jameco.com/z/1N5818-Major-Brands-Diode-1N5818-Schottky-30-Volt-1Amp_177957.html) | 1 | $0.35 | $0.35 |
| 100 uF Capacitor | [Link](https://www.jameco.com/z/RB100-10-Jameco-Valuepro-Capacitor-Radial-100-uF-10-Volt-105c-5x11x3-5mm_1946228.html) | 1 | $0.25 | $0.25 |
| 22 uF Capacitor | [Link](https://www.jameco.com/z/LHK220M35V511-Jameco-Valuepro-Capacitor-Radial-22-uF-35-Volt-20-105c-5x11x2mm_158327.html) | 1 | $0.25 | $0.25 |
| 10 uF Capacitor | [Link](https://www.jameco.com/z/R10-25A-Jameco-Valuepro-10uF-25-Volt-Radial-Electrolytic-Capacitor-20-85c-5x11x5mm_1946367.html) | 1 | $0.25 | $0.25 |
| .33 uF Capacitor | [Link](https://www.jameco.com/z/TM-33-35-Jameco-Valuepro--33-uF-35-Volt-Tantalum-Capacitor_33523.html) | 2 | $0.49 | $0.98 |
| .1 uF Capacitor | [Link](https://www.jameco.com/z/P20R104K5-F-Jameco-Valuepro-Capacitor-0-1-uF-50-Volt-X7R-10-Axial_536542.html) | 1 | $0.25 | $0.25 |
| 680 Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W681JRC-Jameco-Valuepro-Resistor-Carbon-Film-680-Ohm-1-4-Watt-5-_690822.html) | 1 | $0.06 | $0.06 |
| Processor + Speaker + Digital Input | | | | $10.00 |
| ATmega328P-PU | [Link](https://www.jameco.com/z/ATMEGA328-PU-Atmel-Microchip--IC-ATMega328P-PU-8-bit-Microcontroller-32KB-Flash_2139111.html) | 1 | $2.59 | $2.59 |
| Speaker | [Link](https://www.jameco.com/z/TR-050F-Jameco-Valuepro-Speaker-Round-Ferrite-2-Inch-8-Ohm-200mW-320Hz-4kHz-Paper-Cone_320362.html) | 1 | $2.55 | $2.55 |
| 7-Segment Display | [Link](https://www.jameco.com/z/UC5621-11-R-Jameco-Valuepro-LED-Display-7-Segment-Green-0-56-Inch-Common-Cathode-RHDP-2-9mcd_334862.html) | 1 | $1.09 | $1.09 |
| Button | [Link](https://www.jameco.com/z/01-805-R-Jameco-Valuepro-Tactile-Switch-Off-Momentary-On-Single-Pole-Single-Throw-Round-Button-PC-Pins-0-05-Amp-12-Volt-Through-Hole_119011.html) | 3 | $0.35 | $1.05 |
| .1 uF Capacitor | [Link](https://www.jameco.com/z/P20R104K5-F-Jameco-Valuepro-Capacitor-0-1-uF-50-Volt-X7R-10-Axial_536542.html) | 1 | $0.25 | $0.25 |
| 10 K-Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W103JRC-Jameco-Valuepro-Resistor-Carbon-Film-10k-Ohm-1-4-Watt-5-_691104.html) | 1 | $0.06 | $0.06 |
| 1 K-Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W102JRC-Jameco-Valuepro-Resistor-Carbon-Film-1k-Ohm-1-4-Watt-5-_690865.html) | 3 | $0.06 | $0.18 |
| 330 Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W331JRC-Jameco-Valuepro-Resistor-Carbon-Film-330-Ohm-1-4-Watt-5-_690742.html) | 8 | $0.06 | $0.48 |
| Programmer Header (40-pins breakable) | [Link](https://www.jameco.com/z/7000-1X40SG-R-Jameco-Valuepro-Connector-Unshrouded-Header-40-Position-0-100-2-54mm-Straight-Thru-Hole_160882.html) | 1 | $1.19 | $1.19 |
| Chip Header (20-pins breakable) | [Link](https://www.jameco.com/z/G85-20-R-Jameco-Valuepro-Header-Vertical-Receptacle-1-Row-20Cont-100-2-54mm-Female-Header-Receptacle_308567.html) | 2 | $0.89 | $1.78 |
| Disk Reader | | | | $21.19 |
| Stepper Motor | [Link](https://www.jameco.com/z/35BY48L030-01-Jameco-Reliapro-Unipolar-Stepper-Motor-Step-7-Volt-DC-350-mA-7-5-Step-Angle-680-G-CM_2138812.html) | 1 | $7.49 | $7.49 |
| IR LED | [Link](https://www.jameco.com/z/LED-5mmIR-LED-IR-Emitter-Infrared-Clear-5mm-T-1-3-4-940nm-170mW_2275839.html) | 5 | $0.25 | $1.25 |
| Photodiode | [Link](https://www.jameco.com/z/BPW34-OSRAM-Opto-Semiconductors-Photodiode-PIN-Full-Range-400-1100nm-2-65x2-65mm-Sense-Area_1621132.html) | 5 | $0.89 | $4.45 |
| L293NE (Motor Driver) | [Link](https://www.jameco.com/shop/ProductDisplay?catalogId=10001&langId=-1&storeId=10001&productId=1342011) | 1 | $3.59 | $3.59 |
| 1N5818 Schottky Diode | [Link](https://www.jameco.com/z/1N5818-Major-Brands-Diode-1N5818-Schottky-30-Volt-1Amp_177957.html) | 8 | $0.35 | $2.80 |
| PN2222 Transistor | [Link](https://www.jameco.com/z/PN2222-Major-Brands-Transistor-PN2222-General-Purpose-NPN-30-Volt-0-6-Amp_28628.html) | 5 | $0.25 | $1.25 |
| 1 K-Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W102JRC-Jameco-Valuepro-Resistor-Carbon-Film-1k-Ohm-1-4-Watt-5-_690865.html) | 6 | $0.06 | $0.36 |
| Sound Control Module | | | | $1.81 |
| Potentiometer | [Link](https://www.digikey.com/en/products/detail/bourns-inc/PDB181-E420K-102B/3780675) | 1 | $1.22 | $1.22 |
| 1N5818 Schottky Diode | [Link](https://www.jameco.com/z/1N5818-Major-Brands-Diode-1N5818-Schottky-30-Volt-1Amp_177957.html) | 1 | $0.35 | $0.35 |
| 1 K-Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W102JRC-Jameco-Valuepro-Resistor-Carbon-Film-1k-Ohm-1-4-Watt-5-_690865.html) | 1 | $0.06 | $0.18 |
| 18 Ohm Resistor | [Link](https://www.jameco.com/z/CF1-4W180JRC-Jameco-Valuepro-Resistor-Carbon-Film-18-Ohm-1-4-Watt-5-_690443.html) | 1 | $0.06 | $0.06 |

Total Cost: $43.67