**Section 7**

**Development Tracker**

Version 1.01

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**1 - Introduction**

This document is to track development of Section 7.

**2 – Parts List**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Part | Link | Quantity | Price | Total Price |
| Manual Hole Disk | | | | TBD |
| Casing | | | | TBD |
| Disk Reader | | | | $12.05 |
| 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 LEDs | [Link](https://www.jameco.com/z/LED-5mmIR-LED-IR-Emitter-Infrared-Clear-5mm-T-1-3-4-940nm-170mW_2275839.html) | 4 | $0.25 | $1.00 |
| Photodiodes | [Link](https://www.jameco.com/z/BPW34-OSRAM-Opto-Semiconductors-Photodiode-PIN-Full-Range-400-1100nm-2-65x2-65mm-Sense-Area_1621132.html) | 4 | $0.89 | $3.56 |
| Prototyping Parts | | | | $19.06 |
| Battery Holder | [Link](https://www.jameco.com/z/BH-9V-A-R-Jameco-Reliapro-9V-Battery-Holder-with-6-Inch-Wires_216427.html) | 2 | $0.89 | $1.78 |
| 9V Battery | [Link](https://www.jameco.com/z/ALK-9V-522-Energizer-Batteries-9V-Energizer-reg-Alkaline-Battery_198731.html) | 2 | $2.25 | $4.50 |
| 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 |
| AVR Programmer | [Link](https://www.smart-prototyping.com/USBASP-AVR-Programmer.html) | 1 | $4.00 | $4.00 |
| Diode (1N5818) | [Link](https://www.jameco.com/z/1N5818-Major-Brands-Diode-1N5818-Schottky-30-Volt-1Amp_177957.html) | 10 | $0.23 | $2.30 |
| Motor Driver (L293NE) | [Link](https://www.jameco.com/shop/ProductDisplay?catalogId=10001&langId=-1&storeId=10001&productId=1342011) | 1 | $3.59 | $3.59 |
|  |  |  |  |  |
| PLA | NA | 0 grams | $0.02/gram | $0.00 |

**3 – Update Log**

|  |  |  |
| --- | --- | --- |
| Date | Name | Info |
| 10/20/2020 | First Purchases | Hector: Created this document and a parts list. Also bought parts (with extras) to begin prototyping the Disk Reader. Until they arrive, I will be working on prototyping the Manual Hole Disk. |
| 10/21/2020 | MHD Modeling 1 | Hector: Started modeling the disk today. The light sensitive area of the photo diodes is only 2.65x2.65 mm, so the holes of the disk could be miniscule. The flaps however need to be reasonably adjustable, so I’m going to model them with dimensions of 1.00x1.00 cm. |
| 10/30/2020 | Schematics  And  Modeling | Hector: Was busy and couldn’t work on project for the past couple days. Created schematic for driving the motor. Plan to finish modeling disk and creating disk reader schematic. Will create test program for controlling motor with ATmega32. |