The user has sent us an email listing their requirements for the vault. They expressed being open to new ideas so if we run into any issues or have ideas on how to improve the vault/add new features we can suggest them. After reading the email we concluded that these are all the requirements the client has mentioned:

* Vault has to be unique
* Code lock
* Changeable code when vault is **OPEN**
* Single dial (rotary encoder)
* Open automatically (servo)
* Wireless control (Bluetooth, WiFi?)
* Minimum of 3 digit code.
* 4+ digit code
* Display entered code with 7-segment displays
* Indication of incorrect code (leds, buzzer)
* Notification on phone when incorrect code is entered / after too many incorrect tries
* Limited amounts of tries

After running this through MOSCOW we got this table with prioritized requirements:

|  |  |  |  |
| --- | --- | --- | --- |
| **Must Have** | **Should Have** | **Could Have** | **Would Have** |
| Unique Vault | Limited amount of tries to enter code. | 4+ digit code | Wireless Control (Bluetooth, Wi-Fi) |
| Code Lock | Delay or alarm (both?) after too many incorrect tries. |  | Phone notification on incorrect code/too many incorrect tries |
| Single Dial | Changeable code when vault is **OPEN** |  |  |
| Opens Automatically |  |  |  |
| 3 Digit Code |  |  |  |
| 7-segment displays |  |  |  |
| Indication of incorrect code (LED’s, Buzzer) |  |  |  |

*I would like to suggest adding an LCD screen in order to display messages. Also if we want to implement notifications over the internet we will need some way to*

1. *Connect to the internet (either a separate component connected to Arduino or get another chip such as the ESP-32, which has both Wi-Fi and Bluetooth built in. (also it’s a lot smaller than the Arduino uno).*
2. *Enter a password to connect to Wi-Fi. This could either be done with an app linked to the vault with Bluetooth or with a USB cable and a laptop.*