User Manual

**Getting Started**

* **Set Wi-Fi**:

It is important to set the Wi-Fi configuration before start using the device, otherwise you will have to set date and time manually every time the device is reset.

A screenshot of a computer

Description automatically generatedA picture containing cable, plastic, indoor, toothbrush

Description automatically generatedA picture containing electronic device, electronics, gadget, telephone

Description automatically generated

3. Enter your Wi-Fi credentials to the “wifi\_credentials.txt” file

2. Push the SD card and remove it.

1. Unscrew and open the device

**Usage**

The RFID Door Lock System provides the following functionality:

* **Adding Users**:
  1. Press the **\*** key and enter the admin code to enter the admin menu (default code is “123456”).
  2. Select option **A** to add a new user.
  3. Scan the RFID card/tag using the RFID reader module.
  4. Enter the personal ID (3 digits) using the keypad.
  5. The user will be added to the system, and the LCD will display a confirmation message.
* **Deleting Users**:
  1. Press the **\*** key to enter the admin menu.
  2. Select option **B** to delete a user.
  3. Choose the method to delete the user (by RFID or personal ID).
  4. Follow the instructions on the LCD to complete the deletion process.
* **Changing admin code**:
  1. Press the **\*** key to enter the admin menu.
  2. Select option **C** to change the admin code.
  3. Enter the new code (6 digits) using the keypad.
  4. Confirm the new code by entering it again.
  5. The admin password will be updated, and the LCD will display a confirmation message.
* **Definitive Change**:
  1. Press the **\*** key to enter the admin menu.
  2. Select option **D** to perform a definitive change (unlock or lock the door permanently).
  3. The status of the door will be changed accordingly, and the LCD will display a confirmation message.
* **Access Control**:
  1. Present an authorized RFID card to the RFID reader module to gain access to the door.
  2. The system will verify the RFID card against the registered users.
  3. If the card is authorized, the door will unlock, and the LCD will display a welcome message.
  4. If the card is not authorized, the door will remain locked, and an error message will be displayed on the LCD.

**File handling:**

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Description automatically generatedThe device is programmed to save all the information to the SD card in a user-friendly way for better understanding. To access these files, remove the SD card and insert it into a computer. You can access the following information:

* **Access records**:
  1. Enter to the file “access\_records.txt”.
  2. All the access attempts will be shown.
* A screenshot of a computer

  Description automatically generated with medium confidence**Admited Users**:
  1. Enter to the file “admited\_users.txt”.
  2. All the admited users will be shown.

**Admin records:**

The system also saves the changes made by the admin user.

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  Description automatically generated**Added Users**:
  1. Enter to the folder “admin\_records”.
  2. Enter to the file “added\_users.txt”.
* A screenshot of a computer

  Description automatically generated**Deleted Users**:
  1. Enter to the folder “admin\_records”.
  2. Enter to the file “deleted\_users.txt”.
* **Changed codes**:
  1. A screenshot of a computer

     Description automatically generatedEnter to the folder “admin\_records”.
  2. Enter to the file “changed\_codes.txt”.

Note: The actual code it is never showed, only the last one.

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  Description automatically generated with medium confidence**Definitive changes**:
  1. Enter to the folder “admin\_records”.
  2. Enter to the file “door\_status\_changes.txt”.

**Troubleshooting:**

If you encounter any issues with the system, try the following steps:

1. **Check Connections:** Ensure that all physical connections are secure and properly connected.
2. **Serial Output:** Monitor the serial output for any error messages or unexpected behavior.
3. **Power Cycle:** Turn off the system, disconnect the power source, wait for a few seconds, and then reconnect the power.
4. **Reset:** If necessary, you can perform a system reset by pressing the reset button on the ESP32 board.
5. **Contact Support:** If the problem persists, consult the technical support or refer to the documentation for further assistance.

Remember to keep the system secure by regularly changing passwords and maintaining proper access control protocols.