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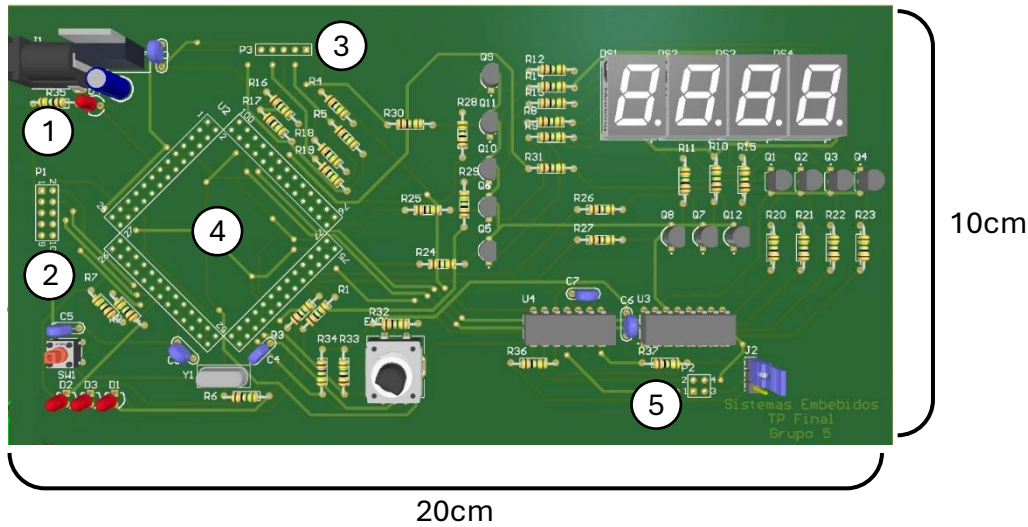
### **Access System Controller**

- Up to 12 users across 3 floors
- Variable Display brightness
- Compatible with a LED matrix and a card reader for extra functionality

## Contents

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## Dimensions



Relevant connections:

1. 5V 2A voltage pin
2. SWD connector
3. Card reader pins
4. Breakout connector
5. LED Matrix connector

## SWD Pinout

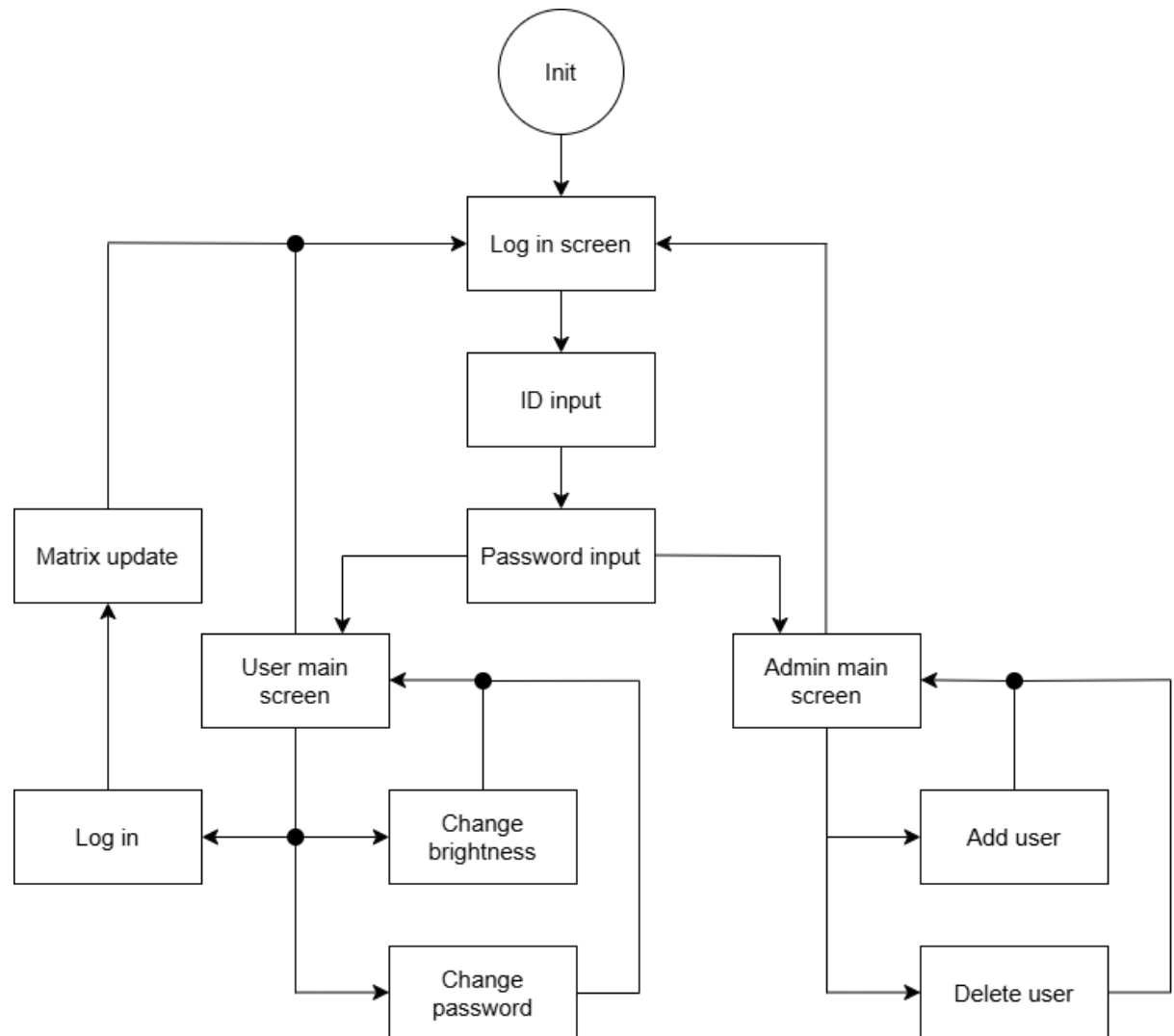
| Pin | Name     | Description               |
|-----|----------|---------------------------|
| 1   | 3V3      | Voltage source            |
| 2   | SWDIO    | Input/Output              |
| 3   | GND      | Ground                    |
| 4   | SWDCLK   | Clock signal              |
| 5   | GND      | Ground                    |
| 6   | SWDTRACE | Trace signal              |
| 7   | NC       | Not connected             |
| 8   | NC       | Not connected             |
| 9   | NC       | Not connected             |
| 10  | RESET_B  | Reset signal (active low) |

## Card Reader Pinout

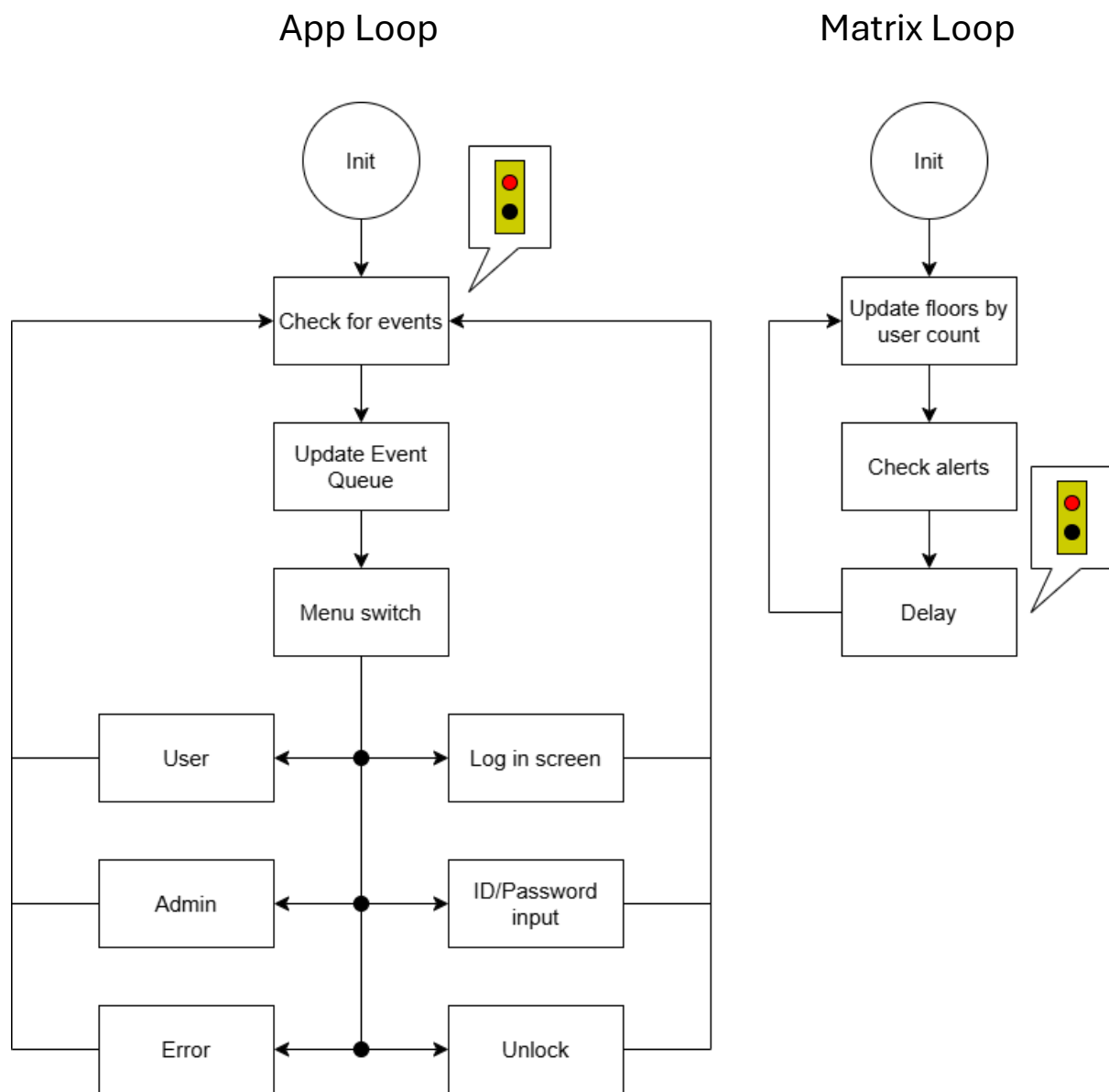
| Pin | Name   | Description  |
|-----|--------|--|
| 1   | 5V     | Voltage source   |
| 2   | ENABLE | Descending flank when data enters. Turns on CLK and DATA |
| 3   | CLK    | Read on HIGH the DATA pin                                |
| 4   | DATA   | Contains the card number information                     |
| 5   | GND    | Ground   |

## LED Matrix Pinout

| Pin | Name   | Description                   |
|-----|--------|-------------------------------|
| 1   | 5V     | Voltage source                |
| 2   | Data_M | Data output to set the matrix |
| 3   | GND    | Ground                        |
| 4   | GND    | Ground                        |



# Access System Loops Flowchart



# Main program driver dependencies

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