

SecLock

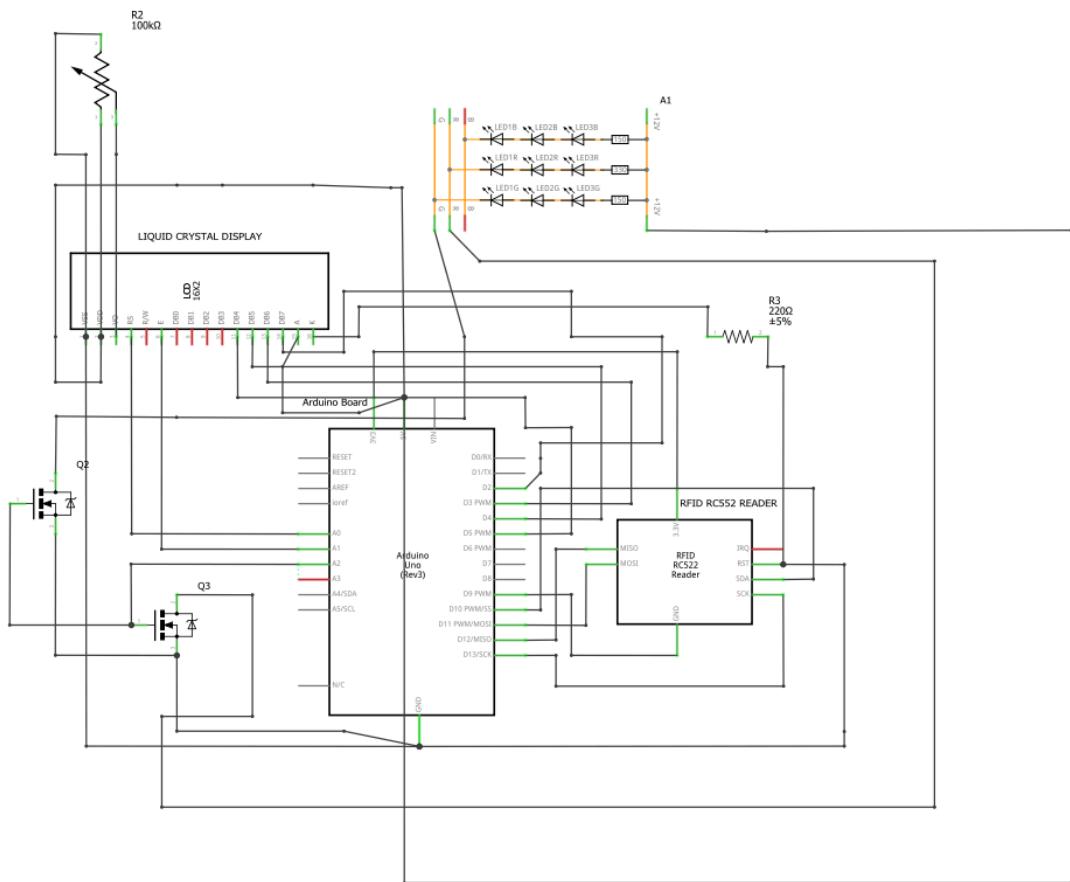
Status	Completed
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Type	Learning

RFID-Based Lock System with LCD and RGB LED Strip

OVERVIEW

This project is an RFID-controlled lock system that uses an RFID-RC522 module, an LCD display, and an RGB LED strip to indicate lock status. The system remains locked (red light, "Locked" on LCD) until an authorized RFID tag is scanned. When the authorized tag is detected, the system unlocks (green light, "Unlocked" on LCD) and starts a 10-second countdown before relocking itself.

How the Circuit Works



Note: The LED strip used for this project was actually a 5v led strip, not 12v

Functionality:

The system reads the UID (Unique ID) of any RFID card/tag presented.

If the UID matches the predefined authorized UID ({0x07, 0x8E, 0x9F, 0xC8}), access is granted.

If the UID does not match, the LCD displays "Access Denied" and keeps the system locked.



Project Applications

🔒 Smart Door Locks

🚪 Access Control for Secure Areas

🏢 School/Workplace Security Systems

⚡ Automation & IoT Projects