Basic Details of the Team and Problem Statement

Student Innovation: Ministry of Ayush

PS Code: SIH1503

Problem Statement Title: Automatic Drug Dispenser

Team Name: Team MNR

Mentor : Dr M.Britha Begum

Team Leader Name: Manoj.S

Institute Code (AISHE): 8138

Institute Name: Saranathan College of Engineering

Theme Name: Hardware

Idea/Approach Details

* Using a QR Code drug ATM in hospitals to address the issue of long queues and inconvenience for patients has potential benefits.

* The never-ending queue in hospitals is a nuisance that patients have to go through.

* This leads to inconvenience to patients at physical as well as mental levels.

* A QR code in the prescription will be used to dish out the right drug from the ATM.

* The drug ATM is able to dispense a wide range of Ayush Medicines available in a hospital/pharmacy.

Technology stack :

1. **Microcontroller/Embedded System**: Arduino uno for hardware control.
2. **QR Code Scanner**: w200 web Camera .
3. **Firmware/Embedded Software**: To control hardware components.
4. **Database Management:** MySQL for storing prescription data and medication details.

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Idea/Approach Details

Use Cases

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1. **Medication Verification**: Ensure the authenticity and accuracy of medications.
2. **Patient Access**: Allow patients to easily access prescription details.
3. **EHR Integration**: Link prescriptions to electronic health records for quick reference.
4. **Appointment Scheduling**: Enable patients to schedule follow-up appointments.
5. **Pharmacy Management**: Streamline inventory tracking for pharmacies.
6. **Telemedicine**: Facilitate remote consultations and virtual appointments.
7. **Medication Adherence**: Monitor and encourage medication adherence.
8. **Emergency Information**: Provide critical information to first responders.
9. **Clinical Research**: Connect prescription data to clinical trials and research.
10. **Prescription Renewals**: Simplify the prescription renewal process. ³
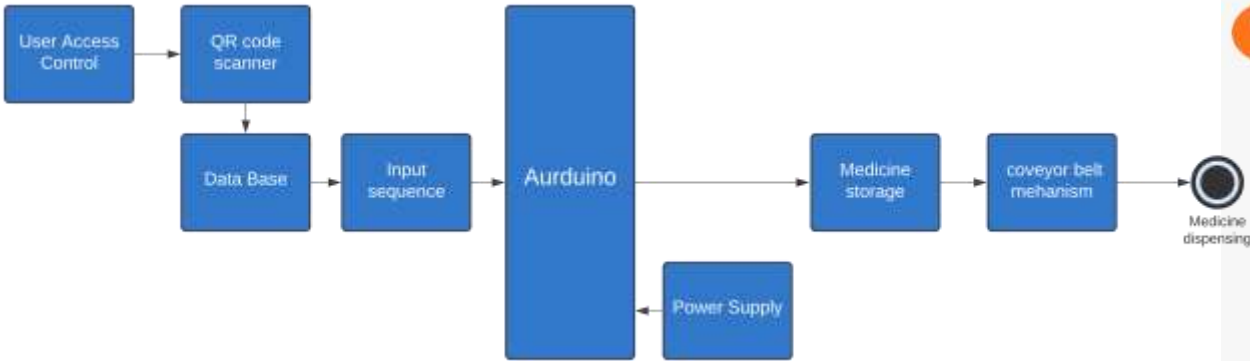
Dependencies

Hardware Dependencies:

- Medication Dispenser Hardware

- QR Code Scanner

- Microcontroller or Embedded System
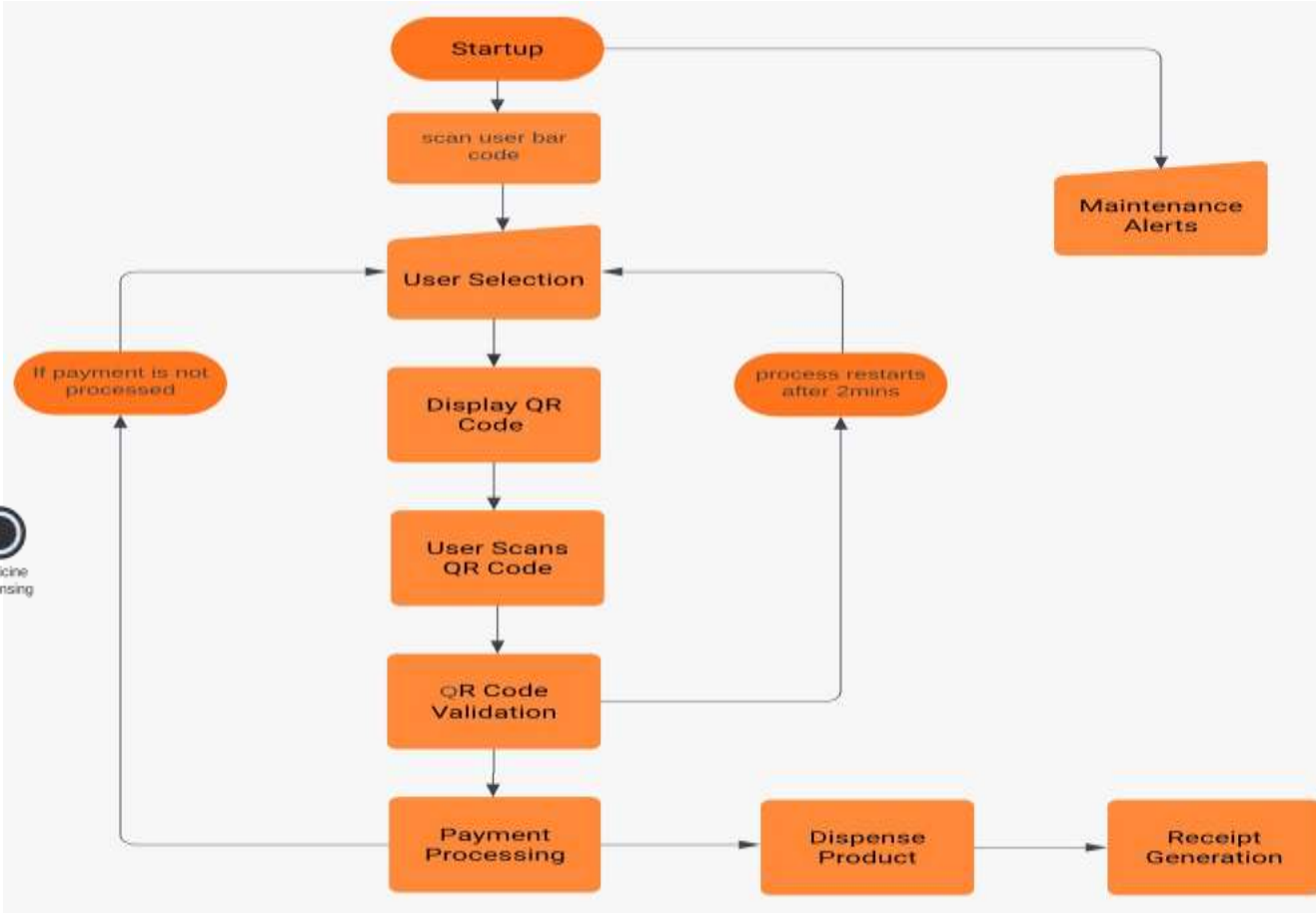
- Power Supply

- User Interface Components

Software Dependencies:

- QR Code Decoding Software

- Dispensing Logic Software

- User Interface Software

- Database System

- Authentication and Authorization Software

- Data Security

Block diagram

Flow chart

Generate QR Code

medicine_name

dolo650

index_number

quantity

Generate QR Code