

## **IOT BASED MEDICINE REMINDER AND DISPENSING MACHINE**

### **AIM:**

Design and development of IOT based medicine reminder and dispensing machine.

### **PURPOSE:**

Medicine remainder is very useful for patients who have Alzheimer's disease. Generally they forgot everything and medicine taking is one of them. To solve this problem we want to add medicine reminder with dispensing machine. It will very helpful for patients who have faced this issue. This system will work based on RTC module and dispensing mechanism. The proposed project title is IOT based medicine reminder and dispensing machine using Arduino.

### **DESCRIPTION:**

WIFI module (IOT-ESP8266) interfaced with Arduino Serial port. RTC module connected to Arduino I2c port. DC motors connected to Arduino digital pins through L293d H-bridge.

### **WORKING:**

Arduino fetch time from RTC module (DS1307) and displaying on 16x4 LCD display. We can set medicine reminder time from Bluetooth App. This project has medicine/pill dispensing mechanism that will operate with DC motors with three trays. When DC motor rotates then pill box will come out. When medicine reminder time trigger, information will upload to IOT server. Patients or take careers will see medicine reminder details in server from remote location. This feature will help to track medicine reminder details.

## TECHNICAL SPECIFICATIONS:

### HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16x4 LCD display
RTC Module	:	DS1307
Bluetooth Module	:	HC-05
WIFI Module	:	ESP8266
Motor	:	DC motor for tray operation
Motor Driver	:	L293d H-bridge
Buzzer	:	5vDC
Power Source	:	12v 1 amp DC Adaptor

### SOFTWARE:

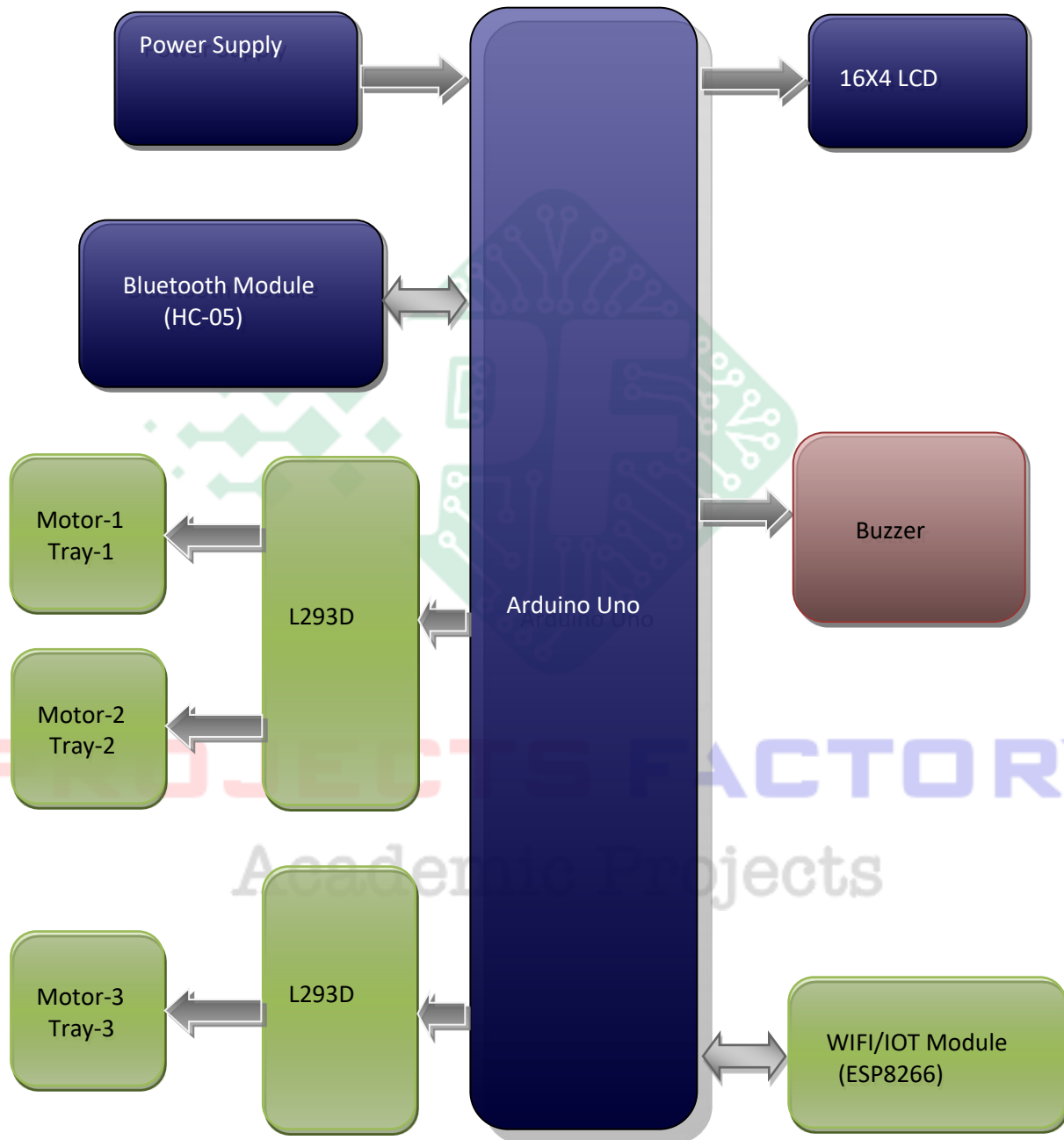
Arduino IDE

Proteus based circuit diagram

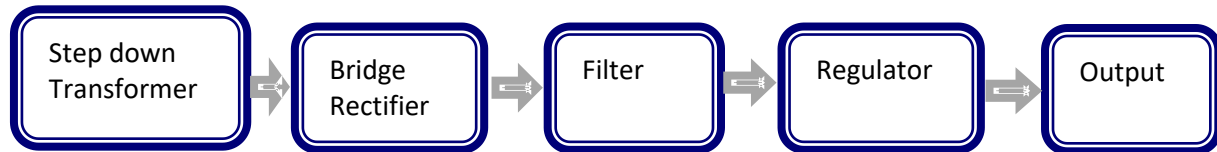
### APPLICATIONS:

- Smart medicine dispenser
- Pill dispenser
- IOT based medicine dosage
- Automatic medicine dispenser
- Medicine vending machine

## BLOCK DIAGRAM:



## POWER SUPPLY BLOCKDIAGRAM:



## INTERFACES COVERED:

- We have covered Arduino programming
- WIFI/IOT (ESP8266) modules interface
- RTC (DS1307) and motors interface

**PROJECTS FACTORY**  
Academic Projects