ROBAN SYSTEMS

AN HELPING HAND FOR DISABLED PEOPLE

Our team

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GROUP NUMBER : 6

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- # Introduction

Roban system is the way of setting up
an Economic Environment to Help The Disabled people with help of modern IOT Technology.

All human needs can be fulfilled using Roban System

we use C++, modern IOT architecture and MQTT protocols to full fill the Roban System

it is more Economical than human labour

2.Formulation Of Objectives

A suitable companion for disabled people

Help disabled people to fullfill their Needs

Daily life applications

Wide range of application,applicable to every physical needs

Economic

Very cheper than human labour.

Large scale compactibility

Can be connect infinite nodes and large scale application

Easy to maintain

Module wise architecture

2.Project planning

Phase 1

Selecting topic,Conveying Idea,

Phase 2

First review,literature Survey

Phase 3

Making schematic,coding ,Implimentation

Phase 4

Documentation,Testing,Prototype, Presentation

3. Task Identification And Allocation

Ajay Das k

Overall h/w

Overall connecting the modules and hardwares

Rabeeh C

Fullfill needs

Fullfilling the basic needs. Providing support to patients.

Fathima Irfana T P

Security

Security and surveillance to the patient and surrounding.

Muhammed Fais M T

Voice control

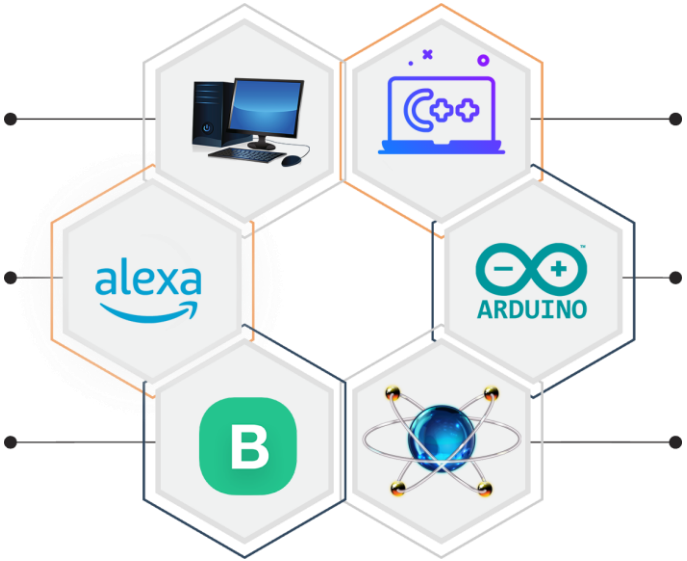
Controling all phyical objects using commands and guesters.

4.Requirments

Pc system
Windows 7+,4 gb of Ram

Alexa
Amazon echodot speaker

Blynk iot
Blynk iot web server iot app



C++
C++ language is used for code

Arduino ide
To flash hende MCU and micro controllers

Proteus
Circuit designing and testing

4.Requirments

Node MCU

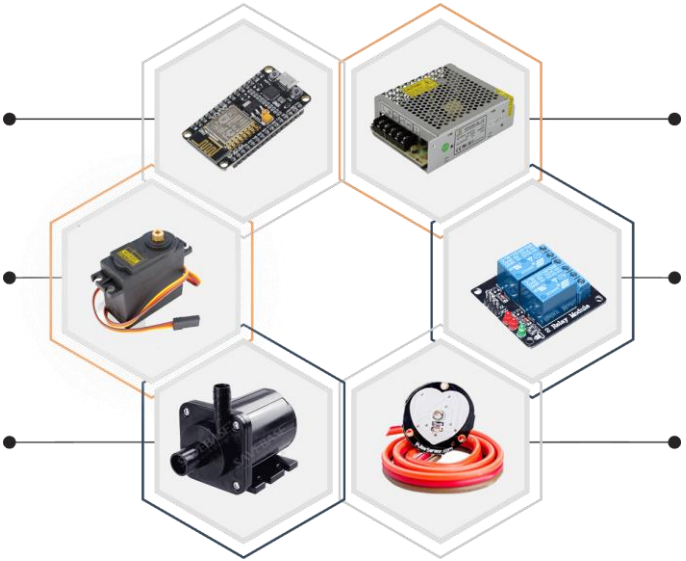
Micro controller bord with wifi

Servo motor

Used to lift and slide things

Pump/valve

To controll liquid or air flow



S M P S

The power supply

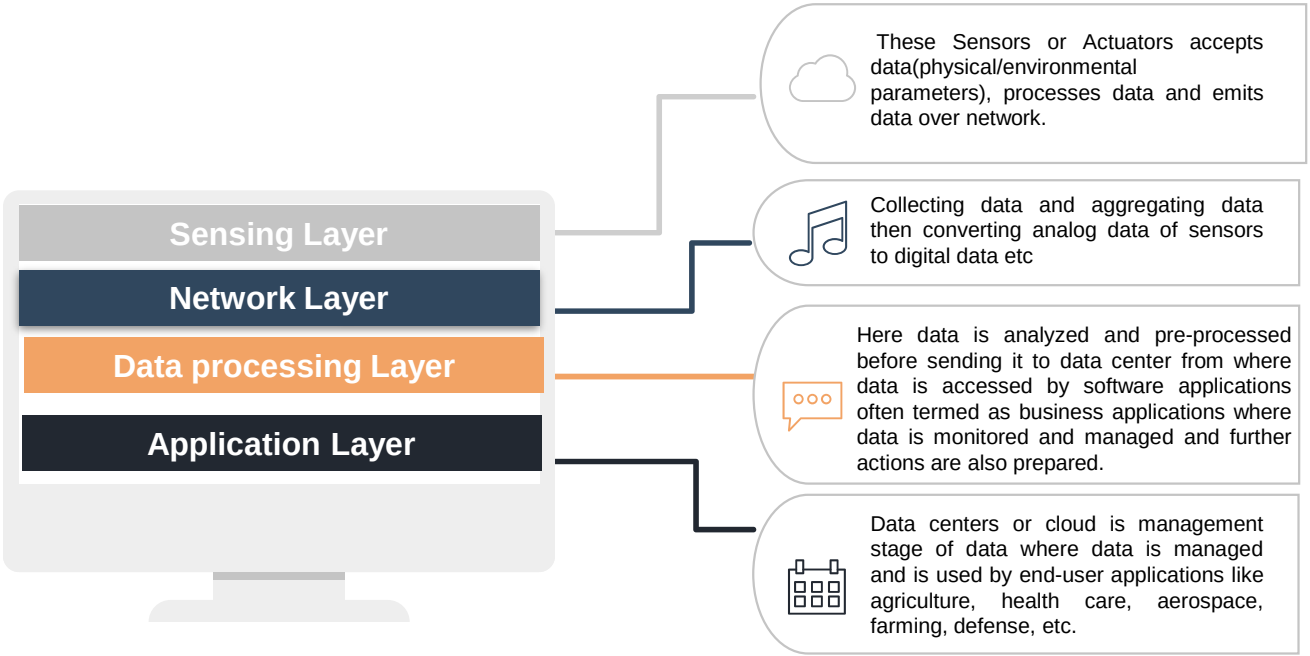
Relay module

Used to trigger current flow

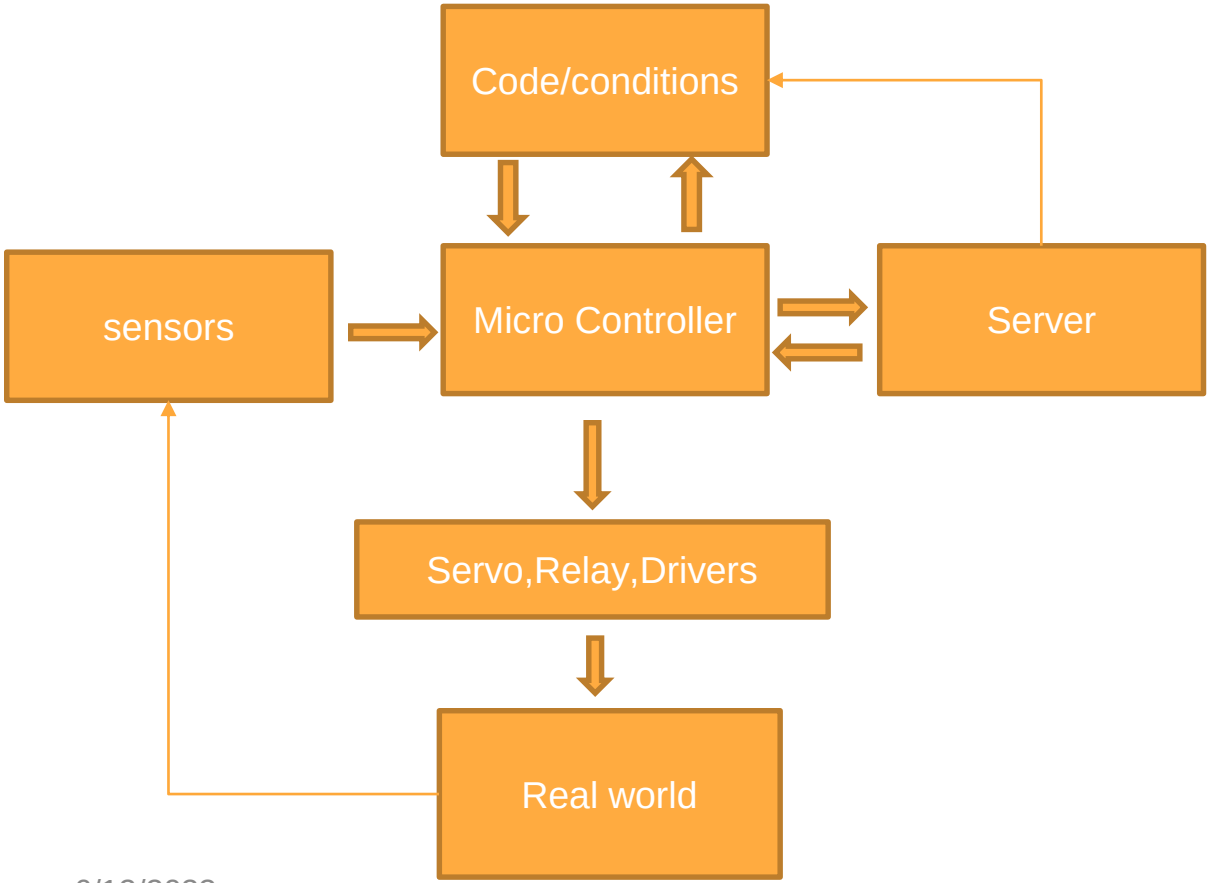
Sensors

Used to input the data

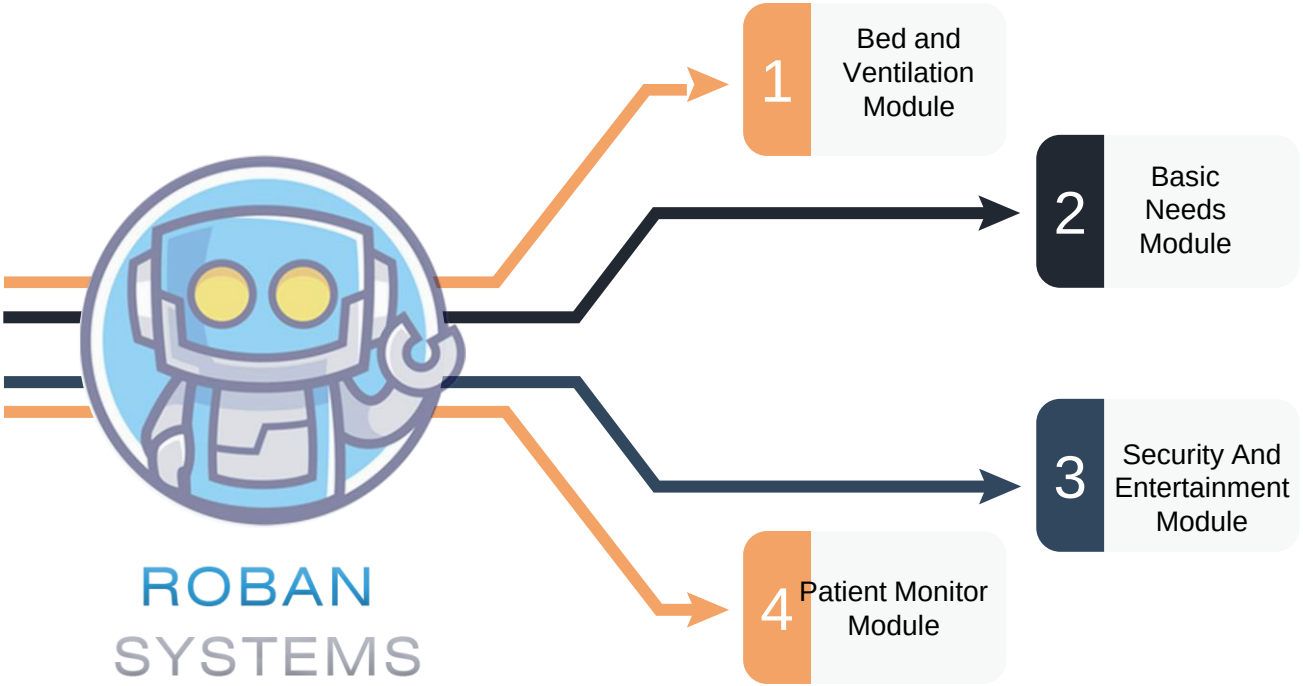
5.Architecture of Internet of Things (IoT)



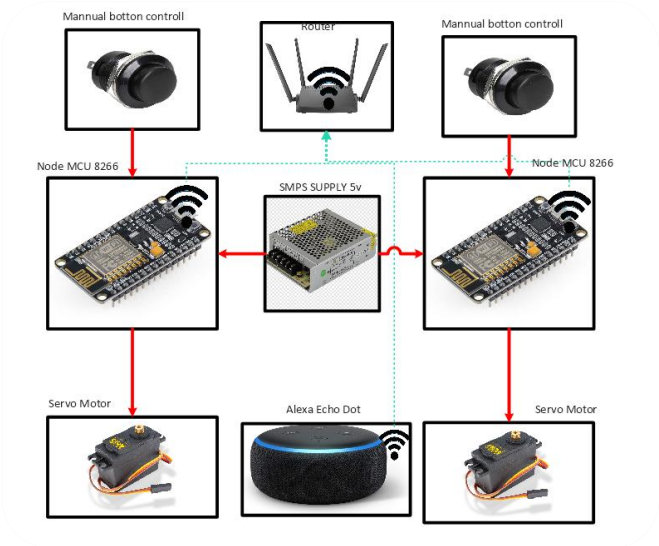
6. Formulation of Design

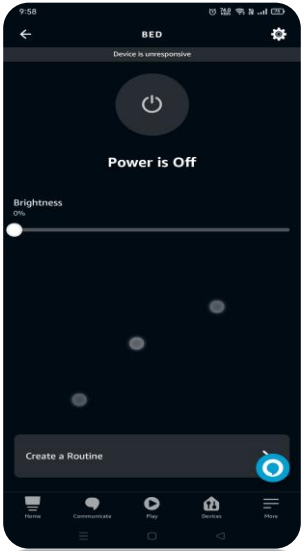


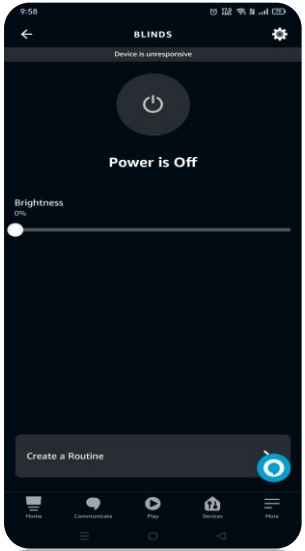
7. Modules


1
Bed and Ventilation Module
2
Basic Needs Module
3
Security And Entertainment Module
4
Patient Monitor Module
ROBAN
SYSTEMS

1.Bed And Ventilation Module

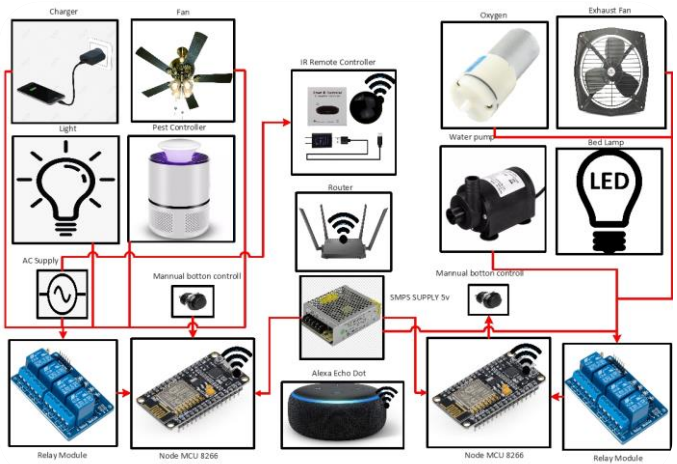


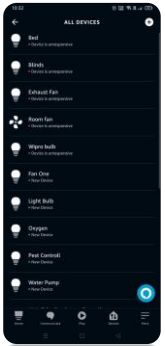


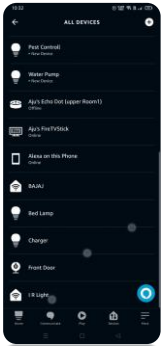


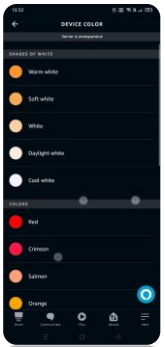
- Control the angle of curtain/blinds.
- Voice command enabled.
- Easy to connect over the Internet.
- Manual switches enabled.
- Wide compatible with IOT platforms.
- Application control is also available.

2.Basic Needs Module



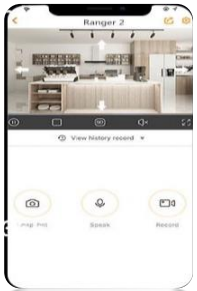






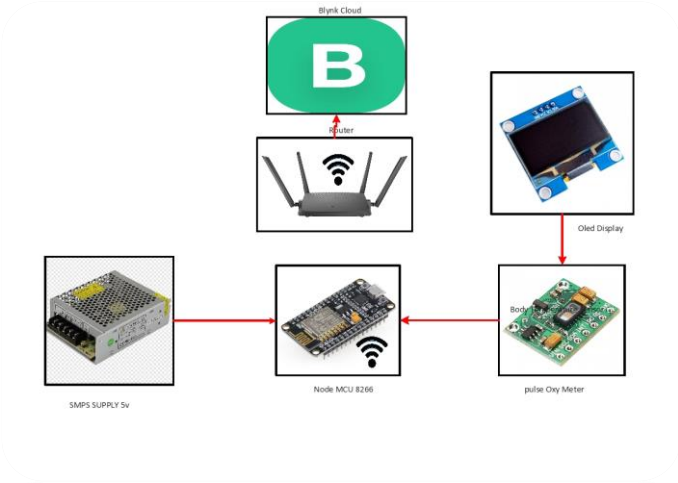
- Control the Daily life Appliances.
- Voice command enabled.
- Easy to connect over the Internet.
- Manual switches enabled.
- Infra red Controlled devices are also connected with IOT.
- Wide compatible with IOT platforms.
- Application control is also available.

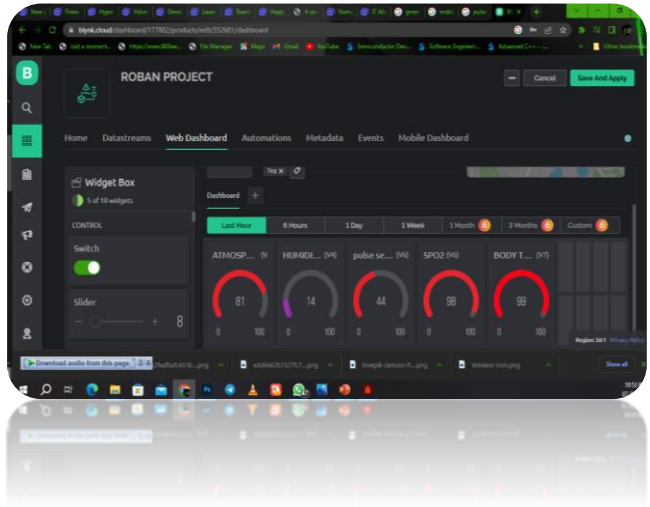
3. Security And Entertainment Module



- Control the Daily life Appliances.
- Voice command enabled.
- Easy to connect over the Internet.
- Entertainment And Monitor the premises.
- Wide compatible with IOT platforms.
- Remote Control Available.
- Multiple Platforms.

4.Patient Monitor Module

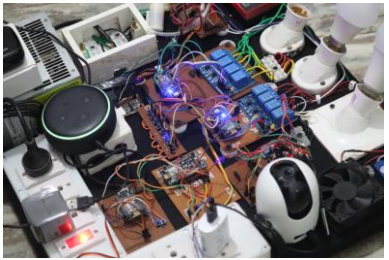
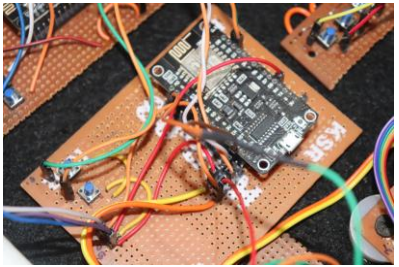
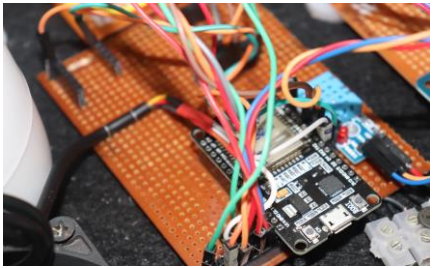
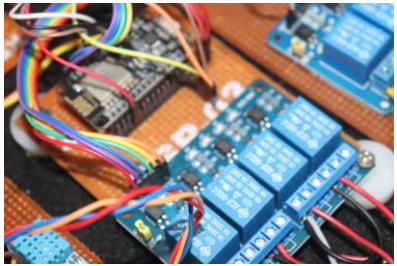


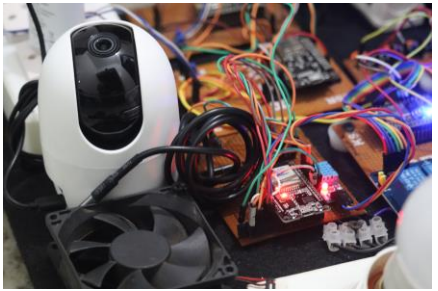
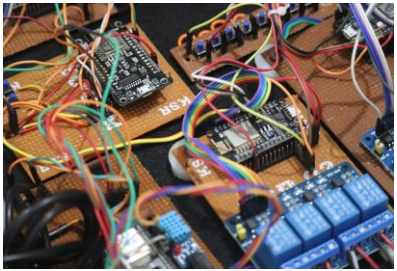
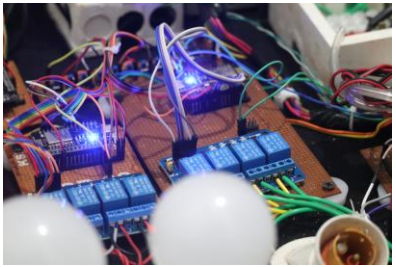
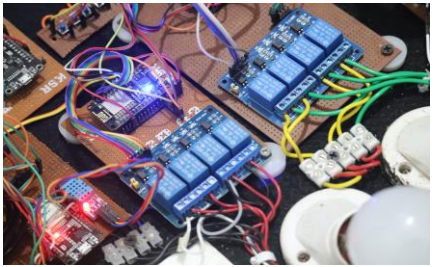


- Monitor the patient anywhere around the world.
- Easy to connect over the Internet.
- Graphical charts and levels.
- Automation And Triggering On Specific Conditions.

7. PROJECT PROGRESS

- Completed around 90% of the project
- Implemented five modules (bed and ventilation, basic needs, patient monitor module, medical aid module, security and monitoring)
- Connected the modules with the IOT environment
- Activated voice assistance with IoT devices
- Calibrated sensors according to the environment

Reference

- Git hub
- Stack overflow
- Knibus
- Aurdino community

Thank you !
Any questions ?