

**A
Project Report
On**

Doctor Robo

Submitted for partial fulfilment of the requirements for the Award of the

BACHELOR OF TECHNOLOGY Degree

In
Electronics & Communication Engineering

Submitted by

Ritu Dixit (1905250310081)
Shalu Kumari (1905250310096)
Shivangi Mishra (1905250310099)
Pooja Prajapati (2005250319003)

Name of Guide

Mr. Mahesh Kumar Singh
(Assistant Professor)

(Department of Electronics & Communication Engineering)



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Affiliated to

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW, U.P.

SESSION- 2022-23

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MAY, 2023

CERTIFICATE

Certified that **Shivangi Mishra, Ritu Dixit, Shalu Kumari, Pooja Prajapati** have carried out the research work presented in this project entitled “**Doctor Robo**” for the award of **Bachelor of Technology** from Dr A.P.J. Abdul Kalam Technical University, Lucknow under my supervision. The project embodies result of original work and studies carried out by Students themselves and the contents of the project do not form the basis for the award of any other degree to the candidate or to anybody else.

Mr. Mahesh Kumar Singh
(SUPERVISOR)
Assistant Professor

Mr. Anil Kumar Chaudhary
Pandey
HOD, Department of ECE

DR. Arvind Kumar

Director, BIT

DECLARATION

We hereby declare that this submission is our own work and that, to the best of our knowledge and belief, it contains no material previously published or written by another person or material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Shivangi Mishra (1905250310099)

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We also don't wish to miss the chance to acknowledge the contribution of all faculty members of the department for his or her kind assistance and cooperation during the event of our project. Last but not the smallest amount, we acknowledge our friends for their contribution within the completion of the project.

Signature: -

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ABSTRACT

This paper reflects on a concept of automate in the medical health care sector. The idea is to design a robotic system which is capable of instantly check up to the people like Heartbeat, Blood pressure, level of Fever & level of Alcohol in the people's body. The medical assistant do the regular check up to the people and save the data in file manager. If it found any problem it can connect to the Doctor by virtually if it found any critical cases then it can contact to book an ambulance (depends on condition). If it does not found any problem then it will provide more medication based on health issues. Therefore, it would be applied in that area where medical facility is not available immediately. The whole system is controlled by microcontrollers and IOT. The purpose is to making this system to available medical facility where medical facility is not available.

Person-to-person contact during the epidemic was very dangerous for the specialist, medical staff, and patient. In each area, specialists are often expected to be present in medical clinics and crisis centres. Therefore, it is impossible for me to attend every single one and to be available at every location at the desired time. A Virtual Doctor system that enables an expert to essentially roam about any clinic space and have spoken conversation with patients helps with this problem. Such robots are used in healthcare settings to ensure assistance and to reduce individual-to-individual interaction. This may be accomplished by reducing the danger that the pandemic poses to clinical staff members and many other individuals who hold operational positions within the company. For professionals, this method has a number of benefits, including: In activity theatres, doctors will walk around. Through video chats, specialists will remotely see clinical records. Various rooms will be visited by specialists. The professional will control the mechanism using an IOT-based board. The mechanism controller receives the management orders given online. The device's Wi-Fi controller controls it.

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Chapter 1

Doctor Robo (The Medical Assistant)

1.1 Introduction

According to the WHO member status report, we have less than one doctor per thousand people for providing proper support in medical health issues in our world. In case of an emergency like the present corona pandemic, this inadequacy is even more noticeable. As a result, Doctors, Nurses and Medical assistants are forced to serve everyone and become more vulnerable to their family and themselves.

More people need more medical caregivers for checkup and this increases the level of expenditure in the health sector. In such situations, a robot may retrieve records of some vital bodily parameters (such as body temperature, pulse rate, blood oxygen Saturation level) of the patient without the doctor or nurse's direct contact with them. It can considerably lessen the patient's hassles.

On the other hand, matters like round-check of the patient, getting medicine as per the prescription having to talk directly and getting in the direct contact with the doctor can be overcome by the developed Doctor Robo.

- Doctors can move around in operation theatres
- Doctors can move around the patient with ease
- Doctors can see medical reports remotely via video calls
- Doctors can move around in other rooms at will
- Doctor ability to be at anyplace anytime

The system makes use of a robotic vehicle with wheel drive for easy navigation. The robot also includes a controller box for circuitry and a mounting to hold a mobile phone or tablet. The mobile or tablet is used to hold live video calls.



Figure 1.1-Doctor Robo

1.2 What is Robotics technology?

Robotics is the intersection of science, engineering and technology that produces machines, called robots, that substitute for (or replicate) human actions. As technology progresses, so too does the scope of what is considered robotics. In 2005, 90% of all robots could be found assembling cars in automotive factories. These robots consist mainly of mechanical arms tasked with welding or screwing on certain parts of a car. Today, we're seeing an evolved and expanded definition of robotics that includes the development, creation and use of bots that explore Earth's harshest conditions, robots that assist law enforcement and even robots that assist in almost every facet of healthcare.

1.3 Doctor Robo:

Person-to-person contact during the epidemic was very dangerous for the specialist, medical staff, and patient. In each area, specialists are often expected to be present in medical clinics and crisis centres. Therefore, it is impossible for me to attend every single one and to be available at every location at the desired time. A Virtual Doctor system that enables an expert to essentially roam about any clinic space and have spoken conversation with patients helps with this problem. Such robots are used in healthcare settings to ensure assistance and to reduce individual-to-individual interaction. This may be accomplished by reducing the danger that the pandemic poses to clinical staff members and many other individuals who hold operational positions within the company. For professionals, this method has a number of benefits, including: In activity theatres, doctors will walk around. Through video chats, specialists will remotely see clinical records. Various rooms will be visited by specialists. The professional will control the mechanism using an IOT-based board. The mechanism controller receives the management orders given online. The device's Wi Fi controller controls it. .



Figure 1.2

The internet of things (IoT) offers the quantifiability needed for continuous and accurate global health observation for this purpose. As time goes on, this paradigm will become an important technology in tending. Additionally, the way of observing and identifying health issues has been completely transformed by recent advancements in low power consumption, miniaturization, and biosensors. Virtual specialized mechanical framework enters it via this development for clinical care and individual therapy. It goes without saying that specialists sometimes appear in medical clinics and crisis centers.



DOCTOR-ROBO

1.4 WHAT IS PROJECT:

A project is a completed information regarding inventory of material component required machines such as sensors. Tools, appliance headed that procurement. Thus, the project is systematically consideration discussed and prepared a particular subject.

MEANING OF PROJECT

The project is the word which consists of seven letters of English alphabets. The word project consists of the PROJECT each having own meaning which are given below-

P-PLANNING:

Planning is the word which deals with idea which is supported before anything of construction.

R-RESOURCES:

It means which guides to promote the function of the planned ideas. The letter R stands for 'resource'. How to find out the capital out lay of proposed venture from an essential Part of project.

O- OPERATION:

The letter 'O' stands for "reparation". The technical know is the like breathe of any industry. Operation of the different type of things to work which comes in the construction.

J- JUNCTION:

The letter 'J' stands for the joint effect unless the entire staff employed in our factory work in a coordinate manner like team in sport ground. No ventures can prove successfully.

E- ENGINEER:

This letter stand for engineering function well trained engineer who can guide the technical operation and is able enough then remove faults in a machine as and when they occur always.

C- COMMUNICATION:

This letter stands good prompt and efficient communication system considerably promotes the overall efficiency and productivity not only that there should be proper mode of commit between the different sections engaged in the different operation but also telecom link with distant station.

T- TRACK:

The letter stands for 'TRACK OF WORKING' must stands up on the business fact displayed by the high microprocessor coordinational relation with staff and lab our unions make the functioning of the industry very smooth which is turns lead to more profit are shared with staff the success of venture is assured.

1.5 Literature Survey:

Doctor Robo is a digital assistant that uses machine learning algorithms and natural language processing to help doctors with their day-to-day responsibilities with its abilities to extract information from patient medical records analyze lab results and aid in clinical decision making. One study conducted by researches at the university of Pittsburgh school of medicine investigated The use of automated system like doctor Robo in reducing physician workload and improving Patient outcomes the study found that digital assistant such as doctor Robo could signification Reduce the burden on physicians and improve the quality of care for patients. Another study explored the use of AI-powered medical assistant like Doctor in the telemedicine Consolation helped physician to make accurate diagnoses and prescribe more effective treatments While streamlining the process of patient care.



DOCTOR-ROBO

Every year, the hospital's emergency department treats millions of patients. However, a large number of patients are not urgent and hospitals are forced to send medical staff to places where they are not really needed. This leads to underutilization of staff and response to real medical emergencies. Due to changing demographics and a growing elderly population, the shortage of doctors is and in rural areas is increasing by leading to inadequate patient service. The future use of artificial intelligence (AI) in healthcare as a tool to advance systems medicine could provide solutions to these problems. AI-based speech recognition technologies, such as Apple's Siri and Amazon's Alexa, have become part of our daily lives. It can be used as smart home management and operation or as a personal assistant. Speech recognition systems are also used to assist physicians in routine hospital operations, such as: B. Use of computer-generated documentation and H. Speech recognition to voice-to-text and display the patient's medical history results for the patient to enter into the electronic health record. However, clinical decision support systems have not yet integrated speech recognition. Clinical decision support systems are not widely used in clinical practice today because they require specialized knowledge and most of them have not been adequately clinically evaluated. However, some examples are fully integrated into clinical practice, such as image analysis software for CT or MRI scans and expert systems for predicting treatment options. B. Infectious diseases. The clinical use of decision support systems still requires a fundamental paradigm shift regarding the systematic link between the collection, modeling, and adoption of "big data" and a mutual positive feedback loop. This planned revolution is made possible by interdisciplinary efforts, including the exchange of standards representations, the development of large-scale data collection and management, model building, and test procedures. experience. Some examples of how AI can improve medical treatment or diagnosis are A. Predict HIV drug resistance B. Predict breast cancer or Predict diabetes from type 2 (T2DM) However, these models are not suitable for automated or unattended use.

1.6 problem Statement:

To check up daily for patient like -body temperature or fever, heartbeat, oxygen saturation and Alcohol level in patient s body and also check the patient s environment like-environment temperature Humidity and air quality.

Experts are often asked to appear at every hospital and crisis centre once in a great while. However, it is not feasible for every professional to be available at every location at the desired time. The challenge with video calling is that you have to be forced to use a computer or computer at a certain location. This limits the specialist's capacity to assess patients, go around emergency clinic rooms, or even be present in the activity theatre freely.

1.7 Proposed Objective of Doctor Robo:

Create an IoT-based mechanism that can be managed by mobile devices or laptops through Wi-Fi at any time and from any location.

- Gather system requirements,
- consider and research the platform required for the system,
- consider and research the suitable programming language,
- technologies, and tools, consider interface options.



1.8 Methodology:

This project's main objective is to effectively provide medical care to the underprivileged in mobile regions of the state. The main goal is to use less staff to care for the patients. People who reside in rural or mobile locations lack the option to get medical care from a doctor who practises in a city. A recorded voice and a show advise the patient to sit in front of the specialists and to disclose the nature of their sickness during a recorded consultation.

The system make use of a robotic vehicle with wheels drive for as navigation. The robot also includes a controller box for circuitry and mounting to hold a mobile phone or tablet.

To overcome these emergency situations making the health-care service available for everyone mostly for elder's, and to avoid the public transportation problems while reaching the popular destination too late.

The project's flow chart shows how each module functions, how data is transferred between modules and the microcontroller, and how data is exported to the IoT cloud.

- For all sensor readings, the system has a zero initial state at startup.
- Using a human body temperature sensor, we will first determine the temperature of the human body. If the reading is greater than normal, an alert will sound, and in both high and normal temperatures, the sensor will upload the temperature reading to the IoT cloud.
- Next, we'll take a reading of the human heart rate; if it's normal, the data will be transferred to the IoT cloud.
- If the pulse rate is abnormal, we will obtain the human position and upload it to the IoT cloud in this situation.



Chapter 2

Design of Proposed Doctor Robo

2.1 Introduction

The internet of things (IoT) offers the quantifiability needed for continuous and accurate global health observation for this purpose. As time goes on, this paradigm will become an important technology in tending. Additionally, the way of observing and identifying health issues has been completely transformed by recent advancements in low power consumption, miniaturisation, and biosensors. Virtual specialised mechanical framework enters it via this development for clinical care and individual therapy. It goes without saying that specialists sometimes appear in medical clinics and crisis centres.

However, it is not feasible for every professional to be present at every location at the desired time. The challenge with video calling is that it must be done from a laptop or laptop stationed elsewhere. This limits the specialist's capacity to assess patients, walk between emergency clinic rooms, or even wager on items when surrounding an activity theatre. To aid in resolving this problem, we prefer to cultivate a virtual expert golem that enables a specialist to walk about in a remote location freely and even conduct conversations with individuals there if they so want.

2.2 The major components of the project

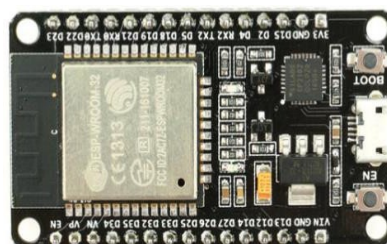
- ESP 32
- MXA30102
- Display (LCD)
- PIR Sensor
- DHT 11
- Ultrasonic Sensor
- MQ-5
- L298N Motor Driver Module
- Servo Motor
- Other-plastic PCV boxes. Jumper Wire. Motor Clamp. LEDs. And 7805IC etc.

2.3 Components Description:

1. ESP32:

ESP32 is a low-cost, low-power Microcontroller with an integrated Wi-Fi and Bluetooth. It is the successor to the ESP8266 which is also a low-cost Wi-Fi microchip albeit with limited vastly limited functionality.

It is an integrated antenna and RF balun, power amplifier, low-noise amplifiers, filters, and power management module. The entire solution takes up the least amount of printed circuit board area. This board is used with 2.4 GHz dual-mode Wi-Fi and Bluetooth chips by TSMC 40nm low power technology, power and RF properties best, which is safe, reliable, and scale-able to a variety of applications.



- ESP WROOM32, Dual-Core 32-bit LX6 microprocessor
- ROM: 448 KB, SRAM: 520 KB, Support up to: 16MB flash
- Built-in CP21XX USB-to-UART(serial) Bridge
- Wi-Fi: 802.11b/g/n/e/i
- Bluetooth: v4.2 BR/EDR and BLE
- 2×8 -bit DACs

2.MXA30102:

The MAX30102 is an integrated pulse oximetry and heart-rate monitor module. It includes internal LEDs, photodetectors, optical elements, and low-noise electronics with ambient light rejection. The MAX30102 provides a complete system solution to ease the design-in process for mobile and wearable devices. The MAX30102 operates on a single 1.8V power supply and a separate 3.3V power supply for the internal LEDs. Communication is through a standard I2C- compatible interface. The module can be shut down through software with zero standby current, allowing the power rails to remain powered at all times.

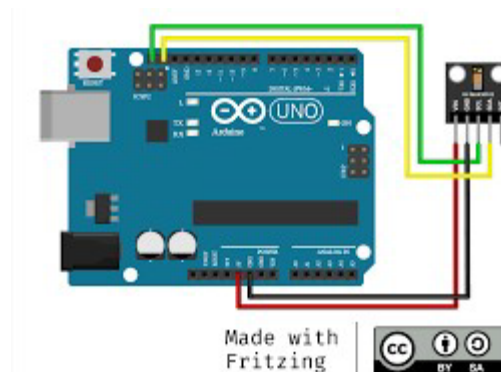


Figure 2.3 – MXA30102

Applications:

- Wearable Devices
- Fitness Assistant Devices
- Smartphones
- Tablets

3.Display (LCD):

A 20*4 LCD display is very basic module and is very commonly used in various devices and circuits. These modules are preferred over seven segments and other multi segment LEDs. The reasons being: LCDs are economical; easily programmable; have no limitation of displaying special & even custom characters.



Figure 2.4 – Display(LCD)

4. PIR Sensor:

- A Passive infrared sensor (PIR sensor) is an electronic sensor.
- That measures infrared (IR) light radiating from objects in its field of view.
- They are most often used in PIR-based motion detectors.
- PIR sensors are commonly used in security alarms and automatic lighting application.

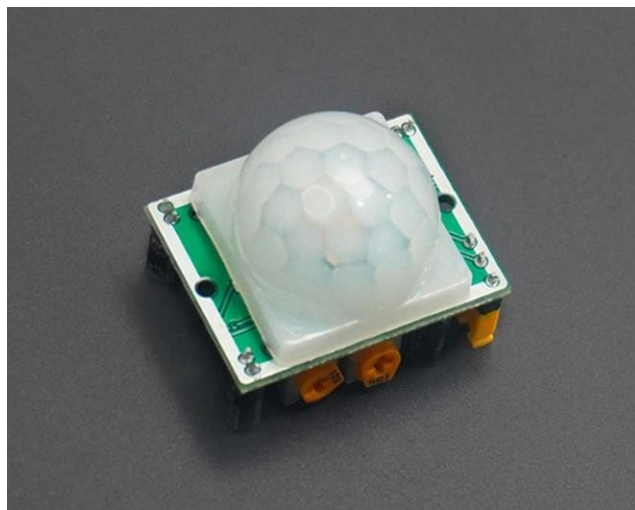


Figure 2.5 – PIR Sensor

Specification of PIR Sensor

- Detection angle: 110 degrees
- Operating voltage: DC 4.5V - 12V DC
- Output signal: 3.3V digital output
- Delay time: adjustable from 0.3 seconds to 5 minutes
- Operating temperature: -15°C to +70°C
- Sensitivity: Adjustable
- Detection range: up to 7 meters

5. DHT 11

DHT11 Temperature & Humidity Sensor features a temperature & humidity sensor complex with a calibrated digital signal output. By using the exclusive digital-signal-acquisition technique and temperature & humidity sensing technology, it ensures high reliability and excellent long-term stability. This sensor includes a resistive-type humidity measurement component and an NTC temperature measurement component, and connects to a high performance 8-bit microcontroller, offering excellent quality, fast response, anti-interference ability and cost-effectiveness.

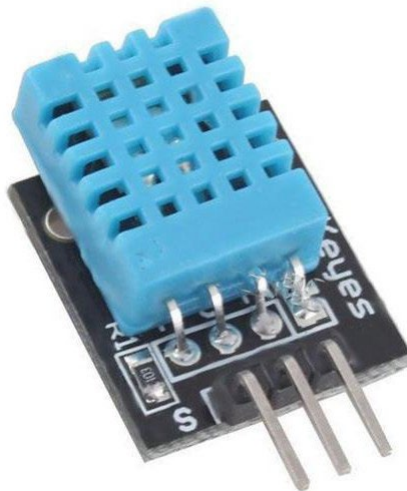


Figure 2.6 – DHT 11

6. Ultrasonic sensor:

An ultrasonic sensor is an instrument that measures the distance to an object using ultrasonic sound waves. An ultrasonic sensor uses a transducer to send and receive ultrasonic pulses that relay back information about an object's proximity. Ultrasonic transducers operate at frequencies in the range of 30–500kHz for air-coupled applications. As the ultrasonic frequency increases, the rate of attenuation increases. Thus, low-frequency sensors (30–80 kHz) are more effective for long range, while high-frequency sensors are more effective for short range. Ultrasonic sensors are used as proximity sensors. They can be found in parking technology and anti-collision safety systems. Ultrasonic sensors are also used in robotic obstacle detection systems and manufacturing engineering.

Features and Specifications:

- Power Supply: +5V DC
- Quiescent Current: <2mA
- Working Current: 15mA
- Effectual Angle: <15° □ Ranging Distance: 2cm – 400 cm/1' – 13ft
- Resolution: 0.3 cm
- Measuring Angle: 30degree
- Trigger Input Pulse width: 10uS TTL pulse
- Echo Output Signal: TTL pulse proportional to the distance range
- Dimension: 45mm x 20mm x 15mm
- Power supply: 5V DC
- Ranging distance: 2cm – 350 cm
- Resolution: 0.3 cm
- Output cycle: 50ms



Figure 2.7– Ultrasonic Sensor

7. MQ-5:

The Grove - Gas Sensor (MQ5) module is useful for gas leakage detection (in home and industry). It is suitable for detecting H₂, LPG, CH₄, CO, Alcohol. Due to its high sensitivity and fast response time, measurements can be taken as soon as possible. The sensitivity of the sensor can be adjusted by using the potentiometer.

The sensor value only reflects the approximated trend of gas concentration in a permissible error range, it DOES NOT represent the exact gas concentration. The detection of certain components in the air usually requires a more precise and costly instrument, which cannot be done with a single gas sensor. If your project is aimed at obtaining the gas concentration at a very precise level, then we do not recommend this gas sensor.



Figure 2.8 – MQ

Features:

- Wide detecting scope
- Stable and long life
- Fast response and High sensitivity

8.L298N Motor Driver Module:

This **L298N Motor Driver Module** is a high power motor driver module for driving DC and Stepper Motors. This module consists of an L298 motor driver IC and a 78M05 5V regulator. **L298N Module** can control up to 4 DC motors, or 2 DC motors with directional and speed control.

The L298N Motor Driver module consists of an L298 Motor Driver IC, 78M05 Voltage Regulator, resistors, capacitor, Power LED, 5V jumper in an integrated circuit.

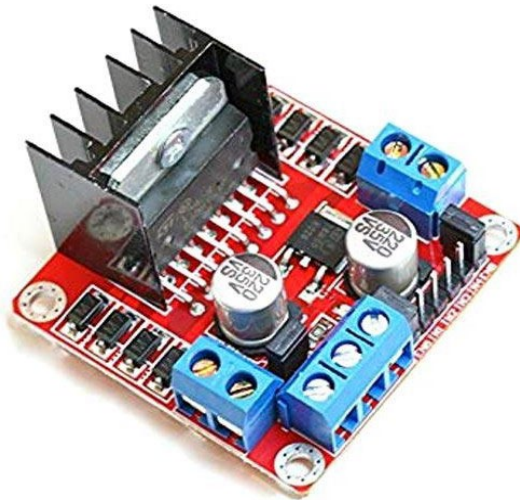


Figure 2.9 – L298N Motor Driver Module

Features & Specifications

- Driver Model: L298N 2A
- Driver Chip: Double H Bridge L298N
- Motor Supply Voltage (Maximum): 46V
- Motor Supply Current (Maximum): 2A
- Logic Voltage: 5V
- Driver Voltage: 5-35V
- Driver Current: 2A
- Logical Current: 0-36mA
- Maximum Power (W): 25W
- Current Sense for each motor
- Heatsink for better performance
- Power-On LED indicator

9.Servo Motor:

A **servo motor** is a type of motor that can rotate with great precision. Normally this type of motor consists of a control circuit that provides feedback on the current position of the motor shaft, this feedback allows the servo motors to rotate with great precision. If you want to rotate an object at some specific angles or distance, then you use a servo motor. It is just made up of a simple motor which runs through a **servo mechanism**. If motor is powered by a DC power supply then it is called DC servo motor, and if it is AC-powered motor then it is called AC servo motor. For this tutorial, we will be discussing only about the **DC servo motor working**. Apart from these major classifications, there are many other types of servo motors based on the type of gear arrangement and operating characteristics. A servo motor usually comes with a gear arrangement that allows us to get a very high torque servo motor in small and lightweight packages. Due to these features, they are being used in many applications like toy car, RC helicopters and planes, Robotics, etc.



Figure 2.9 – Servo Motor

Servo motors are rated in kg/cm (kilogram per centimeter) most hobby servo motors are rated at 3kg/cm or 6kg/cm or 12kg/cm. This kg/cm tells you how much weight your servo motor can lift at a particular distance. For example: A 6kg/cm Servo motor should be able to lift 6kg if the load is suspended 1cm away from the motors shaft, the greater the distance the lesser the weight carrying capacity. The position of a servo motor is decided by electrical pulse and its circuitry is placed beside the motor.

9.Jumper Wire:

Jumper wires are simply wires that have connector pins at each end, allowing them to be used to connect two points to each other without soldering. Jumper wires are shown in figure 2.7 which is typically used with breadboards and other prototyping tools in order to make it easy to change a circuit as needed. Fairly simple. In fact, it doesn't get much more basic then.

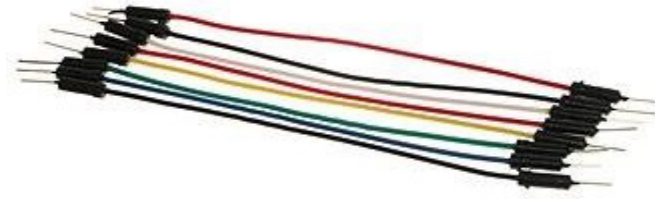


Figure 2.9 – Jumper Wire



Chapter – 3

Working Model

3.1 Working Model:

In this block diagram ESP 32 is the microcontroller of our project which is 32 bits. ESP 32 is connected to Arduino mega. we use Arduino because in ESP 32 has 32 pin which is less for connecting to the input.

We have LED, Buzzer and LCD also.

In this we use LCD for output which is connected to the Arduino mega. ESP sends the signal or data which is print on the LCD.

Buzzer will be getting on with two condition-

If it found any critical condition then the buzzer will be on and the red led will be blink.

If you take any action then buzzer will be getting on and green led will be blink.

Now we take an Input device. We have input device like DHT 11 is a sensor it gives input to microcontroller. It outs the signal and the ESP 32 takes it as an input. Max 3010- It generates the data and send to the ESP-32. MQ5- it also out the data the ESP-32 receives it like as an input. SD card module is for saving to the data it can receive or transmit the data.

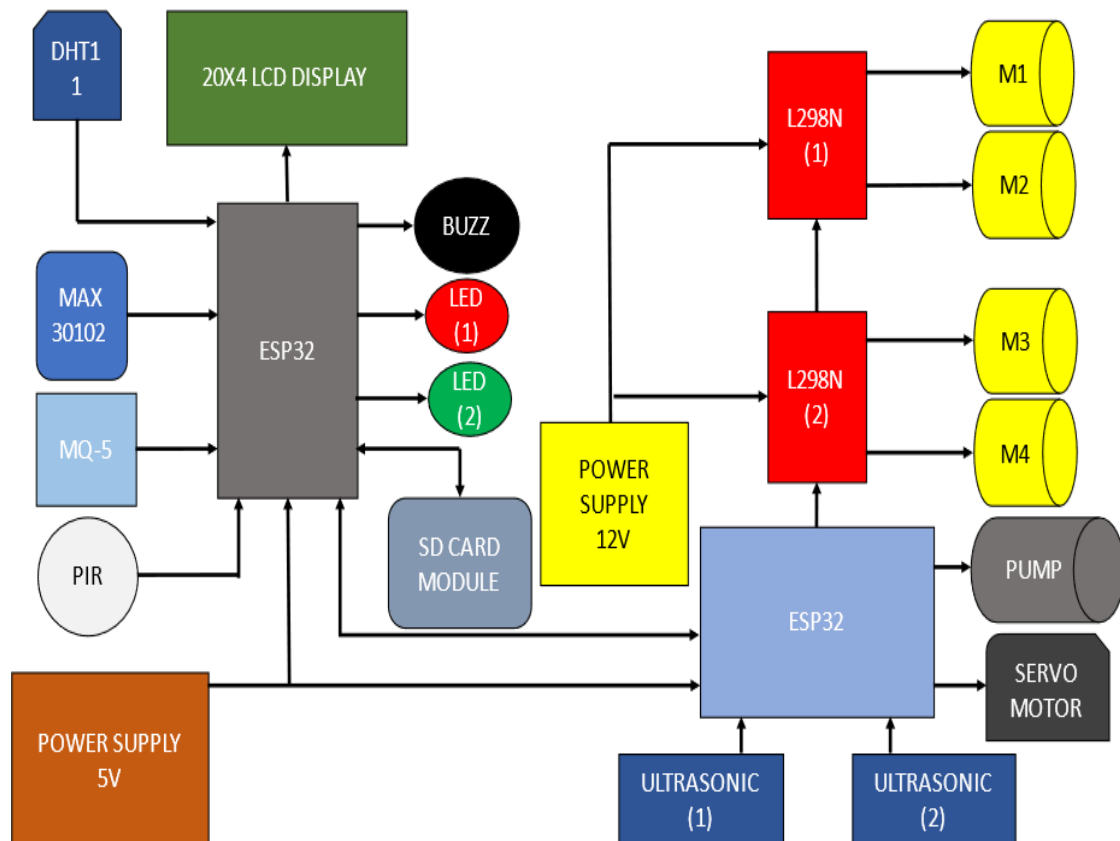


Figure 3.1 – Block Diagram of proposed system

3.2 Architecture

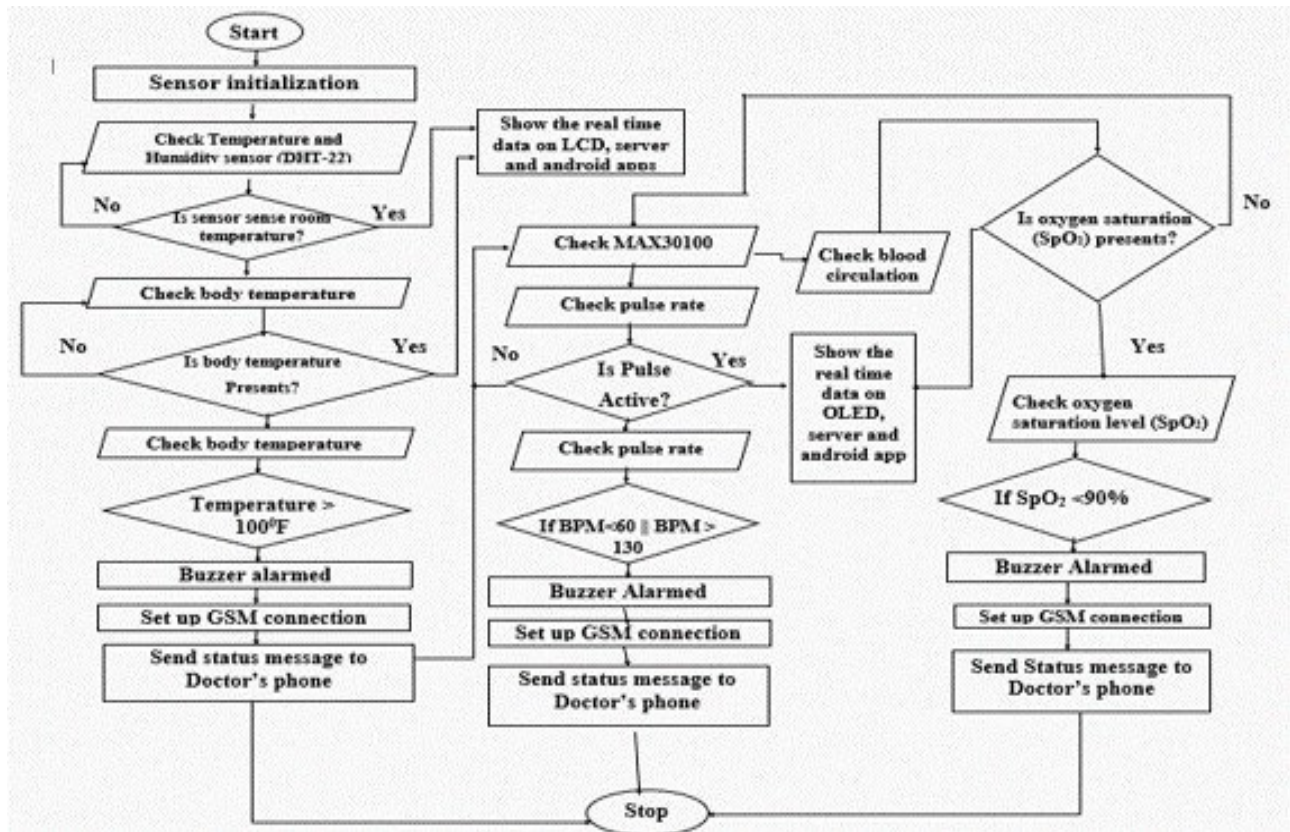


Figure 3.2 – Flowchart of the project



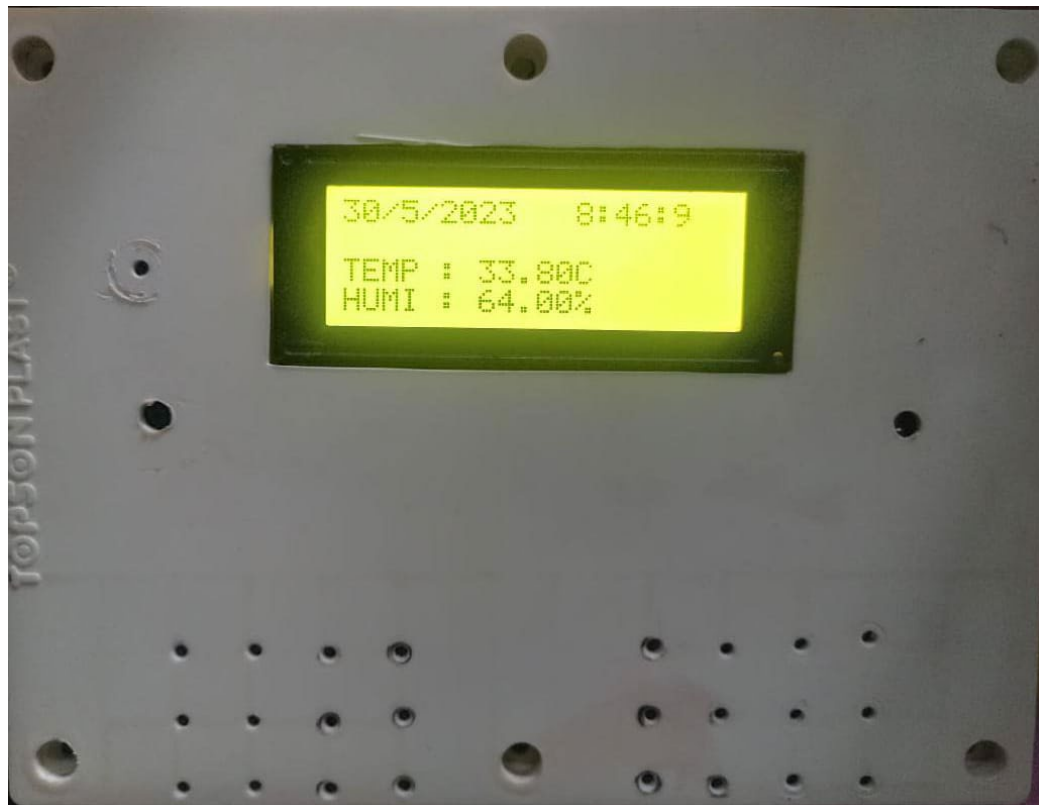
Chapter – 4

Result and Discussion

DOCTOR-ROBO

4.1 Result

- 5 Doctor Robo" or any information about its performance. However, in general, a medical assistant powered by artificial intelligence has the potential to provide accurate and timely information to assist medical professionals in making diagnoses and treatment decisions, as well as in handling routine tasks such as appointment scheduling and prescription refills. The effectiveness of such a medical assistant would depend on the quality of its algorithms and the accuracy and reliability of the data it is trained on. It would also be important to ensure that the medical assistant is developed and used in an ethical and responsible manner, with appropriate safeguards in place to protect patient privacy and ensure the accuracy and fairness of the recommendations it provides.



5.1 Outcomes and Social benefits:

- The doctors have live access to the patient and their data.
- Fully automatic device.
- Used for daily checkup the patients.
- Easy to movable any place.
- Talk to the patients.



Chapter – 5

Conclusion and Future Scope



5.1 Conclusion:

The mechanism technology used in this project helps to ensure peoples' safety and security. This efficient process is crucial in providing older citizens with emergency assistance, not only for patients and physicians. It has a positive effect on society, thus the bio-medical and natural philosophy may have a big influence on the health industry. The lives of people are dynamic every day, and they depend on technical advancements to help them solve their difficulties. Artificial intelligence in healthcare enables high-quality, cost-effective patient care. Each patient, patient, and doctor are in a clinical atmosphere that is secure.

The workload for a doctor during this pandemic can be lessened by utilizing an IoTbased virtual doctor robot. Patients' wait times can be shortened. It is feasible to provide compassionate support with daily duties as well as primary patient monitoring. We created the "Doctor robot" with a manual and autonomous control mechanism to make it more user-friendly. Thanks to the Internet of Things, doctors from all over the world will be able to video chat with patients and see all of their data. We believe that our robot will make a substantial impact on the healthcare industry's effort to overcome the global physician shortage.

5.2 Future Scope:

- Clinical robots simplify a process, expose integrated emergency clinic elements, and enable suppliers to target specific patients. Robots in the medical profession are changing how medical operations are carried out, facilitating the delivery and cleaning of supplies while giving providers more time to interact with patients. Market development for clinical mechanisms is anticipated to assemble between 2022 and 2028



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6.Appendix-1

```
#include <Wire .h>
#include <Wi Fi .h>
#include <string .h>
#include <Time Lib .h>
#include <LiquidCrystal_I2C.h>
#include "MAX30105.h"

#define ST_ Delay 1000
#define BUZZ 15
#define LED_RED 2
#define LED_GREEN 4
#define DHT_SENSOR_PIN 13
#define DHT_SENSOR_TYPE DHT11

String User;
String Key;
String a = "";
bool SD_OK = 0;
```

Department of ECE, may-2023

Ritu, Shivangi, Shalu, Pooja



DOCTOR-ROBO

```
bool pcd ef = 1;
bool pc_1 = 1;
int page_no = 0;
const int gmt Offset_sec = 19800;
const int daylight Offset_sec = 19800;

const char *ssid = "ESP32";
const char *password = "password";
const char *ntp Server = "pool.ntp.org";

long ir Value = 0;
DHT dht_sensor (DHT_SENSOR_PIN, DHT_SENSOR_TYPE);
MAX30105 particle Sensor;
const byte RATE_SIZE = 8; // Increase this for more averaging. 4 is good.
byte rates [RATE_SIZE]; // Array of heart rates
byte rate Spot = 0;
long last Beat = 0; // Time at which the last beat occurred
float beats Per Minute;
int beat Avg;
int32_t SPO2;
int lcd Columns = 20;
int lcd Rows = 4;
LiquidCrystal_I2C lcd (0x2B, lcd Columns, lcd Rows);
// void in it Draw ();
void in it Wi Fi ();
unsigned long get Time ();
void All Sensors Data (void *param);
void Display Screen (void *parameter);
void setup ()
{
    Pin Mode (BUZZ, OUTPUT); // Buzzer pin
    Pin Mode (LED_RED, OUTPUT); // RED_LED pin
    Pin Mode (LED_GREEN, OUTPUT); // GREEN_LED pin.
```



DOCTOR-ROBO

```
Digital Write (BUZZ, LOW);
Digital Write (LED_RED, LOW);
Digital Write (LED_GREEN, LOW);

Lcd. In it (); // initialize LCD
lcd. Clear ();
lcd. Back light (); // turn on LCD backlight
lcd. Set Cursor (0, 0);
lcd .print ("BUDDHA INSTITUTE OF");
lcd. Set Cursor (0, 1);
lcd. Print ("  TECHNOLOGY  ");
lcd. Set Cursor (0, 2);
lcd. Print ("  GIDA GORAKHPUR  ");
lcd. Set Cursor (0, 3);
lcd. Print ("  WELCOMES IN...  ");
delay (2000);
lcd. Clear ();
lcd. Set Cursor (0, 0);
lcd. Print ("  TECH YUVA - 2022 ");
lcd. Set Cursor (0, 1);
lcd. Print ("                ");
lcd. Set Cursor (0, 2);
lcd. Print ("EC 4TH YEAR PROJECT ");
lcd. Set Cursor (0, 3);
lcd. Print ("  DR. ROBOT  ");
delay (2000);
lcd. Clear ();
lcd. Set Cursor (0, 0);
lcd .print ("THE MEDICAL ASSITANT");
lcd. Set Cursor (0, 1);
lcd. Print ("  ROBOT  ");
```



DOCTOR-ROBO

```
lcd. Set Cursor (0, 2);  
lcd. Print ("          ");  
lcd. Set Cursor (0, 3);  
lcd. Print ("  PRESENTED BY- ");  
delay (2000);  
lcd. Clear ();  
lcd. Set Cursor (0, 0);  
lcd. Print ("1. SHIVANGI MISHRA");  
lcd. Set Cursor (0, 1);  
lcd. Set Cursor (0, 1);  
lcd. Print ("2. RITU DIXIT");  
lcd. Set Cursor (0, 2);  
lcd. print ("3. POOJA PRAJAPATI");  
lcd. setCursor(0, 3);  
lcd.print("4. SHALU KUMARI");  
delay(2000);  
lcd.clear();  
lcd.setCursor(0, 0);  
lcd.print("UNDER GUIDENCE OF - ");  
lcd.setCursor(0, 2);  
lcd.print("MR.MAHESH KM. SINGH");  
lcd.setCursor(0, 3);  
lcd.print("ASSISTANT PRO. - ECE");  
delay(2000);  
lcd.clear();  
lcd.setCursor(0, 0);  
lcd.print("INITIALIZING...");  
delay(2000);  
lcd.clear();  
lcd.setCursor(0, 1);  
lcd.print("INITIALIZING...");  
delay(2000);  
lcd.clear();
```



DOCTOR-ROBO

```
digitalWrite(BUZZ, HIGH);
digitalWrite(LED_GREEN, HIGH);
lcd.setCursor(0, 2);
lcd.print("STARTING...");
delay(2000);
digitalWrite(BUZZ, LOW);
digitalWrite(LED_GREEN, LOW);
lcd.clear();
dht_sensor.begin();           // initialize the DHT sensor
initWiFi();                  // initializing Wi-Fi.
configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);           // configuring time from NTP server.
Serial.println("Getting date & time ");
lcd.setCursor(0, 1);
lcd.print("Getting date & time ");
delay(5000);
Serial.print("CURRENT DATE & TIME IS : ");
Serial.println("Date & time updated.");
lcd.print("Date & time updated.");

lcd.clear();
lcd.setCursor(0, 0);
lcd.print("MAX30102 MODULE TEST"
lcd.print("MAX30102 MODULE TEST");
Serial.println("MAX30102 MODULE TEST");
delay(ST_Delay);
particleSensor.begin(Wire, I2C_SPEED_FAST);
if (particleSensor.begin(Wire, I2C_SPEED_FAST)) // Use default I2C port, 400kHz speed
{
    particleSensor.setup(); // Configure sensor with default settings.
    lcd.setCursor(0, 1);
    lcd.print("MAX30102 MODULE > OK");
    Serial.print("MAX30102 MODULE > OK");
```



DOCTOR-ROBO

```
    delay(ST_Delay);
}

else
{
    lcd.setCursor(0, 1);
    lcd.print("MAX30102 > FAIL");
    Serial.println("MAX30102 > FAIL");
    delay(ST_Delay);
}

lcd.clear();
xTaskCreate(AllSensorsData, "AllSensorsData", 8000, NULL, 1, NULL);
xTaskCreate(DisplayScreen, "DisplayScreen", 8000, NULL, 1, NULL);
delay(2000);
}

void loop() // void loop function.
{
}

// .....
void AllSensorsData(void *param)
{
    for (;;)
    {
        irValue = particleSensor.getIR(); // Reading the IR value it will permit us to know if there's a finger on
        the sensor or not Also detecting a heartbeat.
        if (irValue > 7000) // If a finger is detected.
        {
            particleSensor.enableDIETEMPRDY();
            page_no = 1;
            // particleSensor.setPulseAmplitudeRed(0x0A); // Turn Red LED to low to indicate sensor is running
            if ((irValue) == true) // If a heart beat is detected.
```




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```
{
    long delta = millis() - lastBeat
        long delta = millis() - lastBeat; // Measure duration between two beats
    lastBeat = millis();
    beatsPerMinute = 60 / (delta / 1000.0); // Calculating the BPM

    if (beatsPerMinute < 255 && beatsPerMinute > 20) // To calculate the average we store some values
(4) then do some math to calculate the average
    {
        rates[ratesSpot++] = (byte)beatsPerMinute; // Store this reading in the array
        ratesSpot %= RATE_SIZE; // Wrap variable
        // Take average of readings
        beatAvg = 0;
        for (byte x = 0; x < RATE_SIZE; x++)
            beatAvg += rates[x];
        beatAvg /= RATE_SIZE;
    }

}

}

if (irValue < 7000) // If no finger is detected it inform the user and put the average BPM to 0 or it will
be stored for the next measure
{
    beatAvg = 0;
    page_no = 0;
}

vTaskDelay(10 / portTICK_PERIOD_MS);
}
}
```



```
void DisplayScreen(void *parameter) // Function for Reading voltage value from analog chanel and write
it into SD card.
{
```



DOCTOR-ROBO

```
for (;;)
{
    switch (page_no)
    {
    case 0:
        lcd.setCursor(0, 0);
        lcd.setCursor(0, 2);
        lcd.print("TEMP : " + String(dht_sensor.readTemperature()) + "C");
        lcd.setCursor(0, 3);
        lcd.print("HUMI : " + String(dht_sensor.readHumidity()) + "%");
        break;

    case 1:
        // Draw the fix components of default screen on LCD.
        digitalWrite(BUZZ, HIGH);
        digitalWrite(LED_GREEN, HIGH);
        lcd.setCursor(0, 1);
        lcd.print("BPM: ");
        lcd.print(String(beatAvg)+" ");
        lcd.setCursor(0, 2);
        lcd.print("SpO2: ");
        lcd.print("97% ");
        lcd.setCursor(0, 3);
        lcd.print("B_TEMP: ");
        lcd.print(String(particleSensor.readTemperature())+" ");
        vTaskDelay(500 / portTICK_PERIOD_MS);
        digitalWrite(BUZZ, LOW);
        digitalWrite(LED_GREEN, LOW);
        break;
    }
    vTaskDelay(1000 / portTICK_PERIOD_MS);
}
```



```
/**
 *
 */
```

```
void initWiFi() // Function for initializing Wi-Fi.
```

```
{
    WiFi.mode(WIFI_STA); // setting Wi-Fi_MODE.
    WiFi.begin(ssid, password); // Starting Wi-Fi.
    Serial.print("Connecting to: ");
    Serial.print(ssid);
    while (WiFi.status() != WL_CONNECTED)
    {
        Serial.print('.');
    }
    if (WiFi.status() == WL_CONNECTED)
    {
        Serial.println("Connected to Wi-Fi");
        Serial.print("Wi-Fi Local IP - ");
    }
}
```

```
unsigned long getTime() // Function that gets current epoch time.
```

```
{
    time_t now;
    struct tm timeinfo;

    if (!getLocalTime(&timeinfo))
    {
        Serial.println("Failed to Obtain Time");
        return (0);
    }
    time(&now);
```



DOCTOR-ROBO

```
return now;

Serial.println("Time Obtained Sucessfully");
}

#include <WiFi.h> // Load Wi-Fi library
// Replace with your network credentials
const char *ssid = "ESP32-Access-Point";
const char *password = "123456789";
// Set web server port number to 80
WiFiServer server(80);
// Variable to store the HTTP request
String header;
// Auxiliar variables to store the current output state
String output1State = "off";
String output3State = "off";
String output4State = "off";
String output2State = "off";
// Assign output variables to GPIO pins
const int output1 = 1;
const int output3 = 3;
const int output4 = 4;
const int output2 = 2;
void setup()
{
    Serial.begin(115200);
    // Initialize the output variables as outputs
    pinMode(output26, OUTPUT);
    pinMode(output12, OUTPUT);
    pinMode(output13, OUTPUT);
    pinMode(output14, OUTPUT);
    pinMode(output27, OUTPUT);
    // Connect to Wi-Fi network with SSID and password
    Serial.print("Setting Wi-Fi...");
```



DOCTOR-ROBO

```
WiFi(ssid, password);
IPAddress IP = WiFi.softAPIP();
Serial.print("AP IP address: ");
}

void loop()
{
  WiFiClient client = server.available(); // Listen for incoming clients

  if (client)
  {
    // If a new client connects,
    Serial.println("New Client."); // print a message out in the serial port
    String currentLine = ""; // make a String to hold incoming data from the client
    while (client.connected())
    { // loop while the client's connected
      if (client.available())
      {
        // if there's bytes to read from the client,
        char c = client.read(); // read a byte,
        char c = client.read(); // read a byte, then
        Serial.write(c); // print it out the serial monitor
        header += c;
        if (c == '\n')
        { // if the byte is a newline character
          // if the current line is blank, you got two newline characters in a row.
          // that's the end of the client HTTP request, so send a response:
          if (currentLine.length() == 0)
          {
            // HTTP headers always start with a response code (e.g. HTTP/1.1 200 OK)
            // and a content-type so the client knows what's coming, then a blank line:
            client.println("HTTP/1.1 200 OK");
            client.println("Content-type:text/html");
            client.println("Connection: close");
```



DOCTOR-ROBO

```
client.println();

// turns the GPIOs on and off
if (header.indexOf("GET /F") >= 0)
{
    Serial.println("Farward");
    output26State = "on";
    digitalWrite(output12, HIGH);
    digitalWrite(output13, LOW);
    digitalWrite(output14, HIGH);
    digitalWrite(output27, LOW);

    digitalWrite(output26, HIGH);
}

else if (header.indexOf("GET /L") >= 0)
{
    Serial.println("Farward");
    output26State = "on";
    digitalWrite(output12, LOW);
    digitalWrite(output13, HIGH);
    digitalWrite(output14, HIGH);
    digitalWrite(output27, LOW);
    digitalWrite(output26, HIGH);
}

else if (header.indexOf("GET /S") >= 0)
{
    Serial.println("Stop");
    output26State = "off";
    digitalWrite(output12, LOW);
    digitalWrite(output13, LOW);
    digitalWrite(output14, LOW);
}
```



DOCTOR-ROBO

```
        digitalWrite(output27, LOW);
        digitalWrite(output26, LOW);
    }

    else if (header.indexOf("GET /R") >= 0)
    {
        Serial.println("Farward");
        output26State = "on";
        digitalWrite(output12, HIGH);
        digitalWrite(output13, LOW);
        digitalWrite(output14, LOW);
        digitalWrite(output27, HIGH);
        digitalWrite(output26, HIGH);
    }

    else if (header.indexOf("GET /B") >= 0)
    {
        Serial.println("Backward");
        output27State = "on";
        digitalWrite(output12, LOW);
        digitalWrite(output13, HIGH);
        digitalWrite(output14, LOW);
        digitalWrite(output27, HIGH);
        digitalWrite(output26, HIGH);
    }

    // Display the HTML web page
    client.println("<!DOCTYPE html><html>");
    client.println("<head><meta name=\"viewport\" content=\"width=device-width, initial-
scale=1\">");
    client.println("<link rel=\"icon\" href=\"data:;\">");
    // CSS to style the on/off buttons
    // Feel free to change the background-color and font-size attributes to fit your preferences
```



DOCTOR-ROBO

```
client.println("<style>html { font-family: Helvetica; display: inline-block; margin: 0px auto; text-align: center;}");

client.println("text-decoration: none; font-size: 30px; margin: 2px; cursor: pointer;}");

client.println(".button2 {background-color: #555555;}</style></head>");

// Web Page Heading

Client .printlnl ("<body><h1>DOCTOR ROBOT</h1><h2>(The Medical Assistant Robot)</h2>");

client. Print ln("<p><a href=\"/F\"><button class=\"button\">F</button></a></p>");
client.println("<a href=\"/R\"><button class=\"button\">R</button></a></p>");
client.println("<p><a href=\"/B\"><button
client. Print ln ("<p><a href=\"/B\"><button class=\"button\">B</button></a></p>");

client .print ln("</body></html>");

// The HTTP response ends with another blank line
Client .print ln ();

// Break out of the while loop
break;
}
else
{// if you got a newline, then clear current Line
Current Line = "";
}
}
else if (c!= '\r')
{
// if you got anything else but a carriage return character,
Current Line += c; // add it to the end of the current Line
}
}
}

// Clear the header variable
header = "";
```




DOCTOR-ROBO

```
// Close the connection
Client. stop();
Serial. Print ln ("Client disconnected.");
Serial .print ln ("");
}
}
```

Ritu Dixit

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CAREER OBJECTIVE:

Self-motivated, highly passionate and hardworking fresher looking for an opportunity to work in a challenging organization to utilize my skills and knowledge to work for the growth of the organization.

EDUCATIONAL QUALIFICATION:

Degree/ Course	University/ Board	Year of Study	Percentage
B. Tech. (E.C.E.)	AKTU, Lucknow, U.P.	2023	73
12th	U.P. Board	2018	76
10th	U.P. Board	2016	80

CERTIFICATIONS:

Certificate of Participation by Buddha Institute of Technology has participated in webinar on “TelecomSwitching”.

Certificate of Archiving by E & ICT Academy, IIT Kanpur on “Computer System Security”.

Certificate of IOT On IEEE

Certificate of NPTEL on Enhancing soft skills

Project :

The medical assistant (Doctor Robot)
Arduino based vehicle accident alert system
Automatic hand sanitizer

Technical SKILLS :

Computer system security
Python
Core Java
HTML
SQL
MS Office

Personal Profile

Father's name	:	Late Mr. Arvind Dixit
Mother's name	:	Mrs. Sudha Dixit
Date of birth	:	21-07-2002
Nationality	:	Indian
Marital status	:	Single
Sex	:	Female
Hobbies	:	Yoga, talking with ma, watching movies
Languages known	:	Hindi, English
Strengths	:	Commitment to Work Timely Response, Leadership, Quick learner, Honest

DECLARATION: I hereby declare that information in this document is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars. Place- Gorakhpur, Uttar Pradesh

RITU DIXIT

Curriculum-Vitae

Name: Pooja Prajapati

Contact Address: Gauri Bazar, Deoria

E-mail: poojaprajapati2907s@gmail.com

Contact No.: 9936183604



Career Objective:

As per fresher, my priority is to learn new skills, in a globally competitive environment and getting an opportunity to prove my technical skills and utilize my knowledge in growth of organization.

Educational Qualifications

Course	Board/ University	School/ College	Year of Passing	(%)
B.Tech(EC)	AKTU	Buddha Institute Of Technology	2023	72.9%
Diploma	BTEUP	Government Polytechnic Deoria	2020	77.45%
Intermediate	CBSE Board	R.S.M Sr Sec school	2017	60.83%
High School	CBSE Board	Central Academy Sr Sec School	2015	62%

Technical Skills:

- Basic Knowledge of C Language
- Basic Knowledge of Python
- HTML
- CSS
- MS Office

Project Undergoing

Title : Range Finder (Distance Measurement)

- **Technology used:** Arduino Uno, Ultrasonic Sensor
- **Duration :** 6 weeks
- **Team Size:** 4

Project Done

- **Title :** PIR Motion Detector
- **Technology Used :** Ultrasonic Sensor
- **Duration :** 6 weeks
- **Team Size :** 4

Trainings

- Computer System Security by E & ICT Academy (IIT Kanpur)
- Training course on Website Development (IIT BHU)
- Training course on Embedded System (ITI Limited Mankapur)

Seminar / Workshops

- IOT(Internet of Things)
- PLC and SCADA (3 days)
- ARDUINO UNO (2 days)

Awards & Achievements

(Mention Research / Extra-curricular/ Co-Curricular & Sports)

- Certification Of International Conference On IRET(Innovation Research in Engineering & Technology)
-

Personal Information

- Father's Name: Mr. Harilal Prajapati
- Date of Birth: 20/05/2000
- Gender: Female
- Marital Status: Unmarried
- Nationality: Indian
- Hobbies: Listening, Travelling, Reading Books
- Languages Known: Hindi , English

References

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Declaration

I hereby declare that the above information is true and correct to the best of my knowledge. I bear the responsibility for the correctness of the mentioned particulars.

Date:

Place: Gorakhpur

Name: Pooja Prajapati

Curriculum-Vitae

Name: Shalu Kumari

Contact Address: Jharkhandi tukda no3 Gorakhpur

E-mail: sk1815735@gmail.com

Contact No.: 6209664973



Career Objective:

As per fresher, my priority is to learn new skills, in a globally competitive environment and getting an opportunity to prove my technical skills and utilize my knowledge in growth of organization.

Educational Qualifications

Course	Board/ University	School/ College	Year of Passing	(%)
B.Tech (Electronics & Communication Engineering)	AKTU	Buddha Institute of Technology	2023	71.5%
Intermediate	BIHAR	Mahendra H/S CUM Govt. Inter Collage Siwan Bihar	2019	70%
High School	BIHAR	D U V M Vishnupura Bazar Mairawa Bihar	2017	64.8%

Technical Skills:

- Computer System Security (CSS)
- Core Java Programming
- Basic Python Programming

Project Undergoing

Title : The Medical Assistant (Doctor Robot)

Project Outline: The aim of this project is to explain the design and development of a futuristic doctor which can act as a personal doctor. The robot can be used for real-time health monitoring in addition to provide basic health instructions.

Technology: Arduino Based

- **Platform:** Techyuva
- **Duration:** On going
- **Team Size:** 4
- **Role & Responsibility:** Group Member & Model Presentation

Project Done

1. Title: Fountain Water With Plastic Bottle.

- **Project Outline:** It is the Line Follower Robot. It is use in Industry for loading things.

- **Technology:** Motor Driver IC
- **Platform:** Techyuva
- **Duration:** 6 Month
- **Team Size:** 4
- **Role & Responsibility:** Group Member & Model Presentation

2. Title: Automatic Toll Collection System Using RFID.

- **Project Outline:** The very first objective of this project is that .it provide a chance of fair election of our government as in this process the Id, Aadhar card required to all the details to find the person is authenticated by the government is appear in the election
-
- **Technology:** Arduino Uno , Arduino Nano , Fingerprint Module
- **Platform:** Techyuva
- **Duration:** 6 Month
- **Team Size:** 4
- **Role & Responsibility:** Group Member & PPT Presentation

Trainings

- **Training on Technology Name :** Cisco Certified Networking Area
- **Company Name :** LTBP

Seminar / Workshops

- **Workshop on Technology Name :** PLC SCADA
- **Workshop on Technology Name :** Internet of Things(IoT)

Personal Information

- Father's Name: Mr. Pradeep Singh
- Date of Birth: 10/11/2001
- Gender: Female
- Marital Status: Unmarried
- Nationality: Indian
- Hobbies: Travelling, Reading Story
- Languages Known: English, Hindi

References

Mr. Sudhir Shukla
Electronics and Communication Engineering
sudhir482@bit.ac.in
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Mr.Prabha Kant Dwivedi
Training & Placement Officer
tp@bit.ac.in
+91-9838280284

Declaration

I hereby declare that the above information is true and correct to the best of my knowledge. I bear the responsibility for the correctness of the mentioned particulars.

Date: 27/01/2023

Shalu Kumari

Place: Gorakhpur

(Name)

SHIVANGI MISHRA

Name: Shivangi Mishra
Contact Address: Gorakhpur, Uttar Pradesh
E-mail: shivangimishra4d@gmail.com
Contact No: 6390058365



Career Objective:

As per fresher, my priority is to learn new skills, in a globally competitive environment and getting an opportunity to prove my technical skills and utilize my knowledge in growth of organization.

Educational Qualifications

Course	Board/ University	School/ College	Year of Passing	(%)
B. tech (ECE)	AKTU, Lucknow, U.P.	Buddha Institute Of technology, Gorakhpur (U.P.)	2019-2023	66.60%
Intermediate	U.P. Board	Kanti Devi Inter college Soharauna, Kushinagar (U.P.)	2019	68.8%
High School	U.P. Board	ST Mary's Inter College, Gorakhpur (U.P.)	2017	77.33%

Technical Skills:

- C Programing
- CCNA
- Basic electronics
- Arduino Uno, ESP32 and ESP8266
- MS Office
- Computer System Security

Project Undergoing:

Title: Doctor Robo (The Medical Assistant Robot)

- **Project Outline:** The aim of this project is to explain the design and development of a futuristic doctor which can act as a personal doctor. The robot can used for real-time health monitoring in addition to provide basic health instructions.
- **Technology:** ESP32 based
- **Platform:** Tech-Yuva
- **Duration:** On doing
- **Team Size:** 04
- **Role & Responsibility:** Team leader & Model, Ppt presentation

Project Done:

1. Title: Arduino Based Vehicle Accident Alert System

- **Project Outline:** Arduino based vehicle accident alert system. It is an Arduino based project in which we use Gps and Gsm. After accident it can detect the accident and share the accident's location on to the registered mobile or any hospital or police station by this anyone can got help.
- **Technology:** Arduino based
- **Platform:** Tech-Yuva
- **Duration:** 04 months
- **Team Size:** 04

- **Role & Responsibility:** Team leader & Model, Ppt presentation

2. Title: Automatic Hand Sanitizer

- **Project Outline:** This is an Arduino based project. Our intention is to keep it simple and cheap so that anyone can replicate it. Possibly the easiest solution for this purpose is to use a simple transistor with an IR proximity sensor, which would also drastically reduce the costs.
- **Technology:** IR sensor
- **Platform:** Tech-yuva
- **Duration:** 05 months
- **Team Size:** 04
- **Role & Responsibility:** Team leader & Model, Ppt presentation

Training:

- Training on E & ICT Academy, IIT Kanpur on “Computer System Security” for six months.
- Training on Annant Gyan Knowledge and Skills pvt.ltd. on “Hand-on-Session on Python and Machine Learning” for 15 days.

Seminar / Workshops:

- Training on Cisco Certified Network Associate (CCNA) in Gyandeep Pvt. Ltd. Gorakhpur for Six Week.
- Workshop on PLC and SCADA for 3 days.
- Workshop on IOT for 3 days.
- Workshop on Entrepreneurship for 2 days.

Awards & Achievements:

- My engineering final year project (“Doctor – Robo”) has been selected for CSTUP.
- I got a “Buddha Star Award” (from college) for my research work
- Certificate of Archiving by Udemy on “Python And Flask Framework Complete Course”.
- Certificate of Archiving by Annant Gyan Knowledge and Skills pvt.ltd. on “Hand-on-Session on Python and Machine Learning”.
- Certificate of Archiving by SPACE on “ROBOTICS”.
- Certificate of Archiving by Udemy on “Python complete Course For Python Beginners”.
- Certificate of Archiving by Softronic Automation on “PLC SCADA”.
- Certificate of Archiving by E & ICT Academy, IIT Kanpur on “Computer System Security”.
- Participated in Webinar on “Telecom Switching” organized by Department of ECE, Buddha Institute Of Technology Gida Gorakhpur.
- Participated in Webinar on “Business Ideas in Startup” organized by Department of ECE, Buddha Institute Of Technology Gida Gorakhpur.
- Participated in Webinar on “Introduction Of 3d Printer” organized by Department of ECE, Buddha Institute Of Technology Gida Gorakhpur.

Personal Information:

- Father’s Name: Mr. Harishankar Mishra
- Date of Birth: 11/11/2002
- Gender: Female
- Marital Status: Unmarried
- Nationality: Indian
- Hobbies: Yoga, Drawing and Travelling
- Languages Known: Hindi, English

References:

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Mr. Prabha Kant Dwivedi
Training & Placement Officer
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Declaration:

I hereby declare that the above information is true and correct to the best of my knowledge. I bear the responsibility for the correctness of the mentioned particulars.

Date: 15/09/2022

Place: Gorakhpur

Shivangi Mishra