**NATIONAL INSTITUTE OF BUSINESS MANAGEMENT**

**SCHOOL OF COMPUTING AND ENGINEERING**

**HIGHER NATIONAL DIPLOMA IN SOFTWARE ENGINEERING**

**KANDY 24.1F**

**INTERNET OF THINGS FIRST PROGRESS REPORT**

**ADVACE HEALTH CARE MONITORING MONITORRING**

**SYSTEM**

**GROUP NO - 10**

**SUBMITTED BY:**

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# PROBLEM IDENTIFICATION

Paralyzed patients need continuous monitoring of vital signs because of their inability communication problem. Current healthcare monitoring system does not have a real-time monitoring alert system which can help in an emergency. Additionally, the studies shows that the delays in emergency response due to insufficient monitoring systems can significantly increase the risk of patient’s life. So, we have planned to create a system to monitor the patient in real-time and emergency to alert the emergency services and house members.

# PROPOSED SOLUTION

We proposed a solution for the problem, continuously monitor the patient using some health care sensors like heart rate sensor, blood pressure sensor, ECG sensor. The patient report can be view in a display and through a mobile application. Patient’s abnormal health situation guardian and doctor get a SMS alert and live location of the patient for this we use a GPS module. voice alert in emergency. If patient get fall from bed, then the guardian gets a SMS alert to mobile.

# DETAILED DESIGN

We used Tinker cad website to create the 3D Design of our final Project product.

## Product 3D Model

## Product Schematic Diagram

## Product PCB Diagram

# BOM (BILL OF AMOUNT)

|  |  |  |
| --- | --- | --- |
| **Item Name** | **Qty** | **Price(LKR)** |
| Arduino mega | 1 | 5390 |
| SIM800L | 1 | 1255 |
| OLED **0.96-inch** Display | 1 | 780 |
| MAX30100 | 1 | 590 |
| ECG(AD8232) | 1 | 1750 |
| DF-Mini player | 1 | 525 |
| Speaker | 1 | 360 |
| Data cable | 1 | 290 |
| GPS-Module(NEO 6VM) | 1 | 1350 |
| DS18B20(waterproof temp) | 1 | 450 |
| MPU6050 | 1 | 595 |
| Switch | 1 | 75 |
| LM2596 | 1 | 280 |
| Clopper Clad board(FR4 Type) | 1 | 1350 |
| Ferric Chloride(FeCl3) | 1 | 170 |
| Sandpaper(100gsm) | 1 | 100 |
| Photo sheet | 1 | 200 |
| ESP8266 | 1 | 1570 |
| DTH11 | 1 | 590 |

# CIRCUIT DIAGRAM

# FLOW CHART

# TIMELINE (GANTT CHART)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **WEEK**  **01** | **WEEK**  **02** | **WEEK**  **03** | **WEEK**  **04** | **WEEK**  **05** | **WEEK 06** | **WEEK**  **07** |
| **PLANNING** |  |  |  |  |  |  |  |
| Discuss the topic |  |  |  |  |  |  |  |
| **ANALYZING** |  |  |  |  |  |  |  |
| Identify components and gathering |  |  |  |  |  |  |  |
| **DESIGN** |  |  |  |  |  |  |  |
| Designing the prototype |  |  |  |  |  |  |  |
| **DEVELOPMENT** |  |  |  |  |  |  |  |
| Start to build the project |  |  |  |  |  |  |  |
| **IMPLEMENTATION** |  |  |  |  |  |  |  |
| Develop the project features |  |  |  |  |  |  |  |
| **SUBMIT THE**  **PROJECT REPORT** |  |  |  |  |  |  |  |