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.

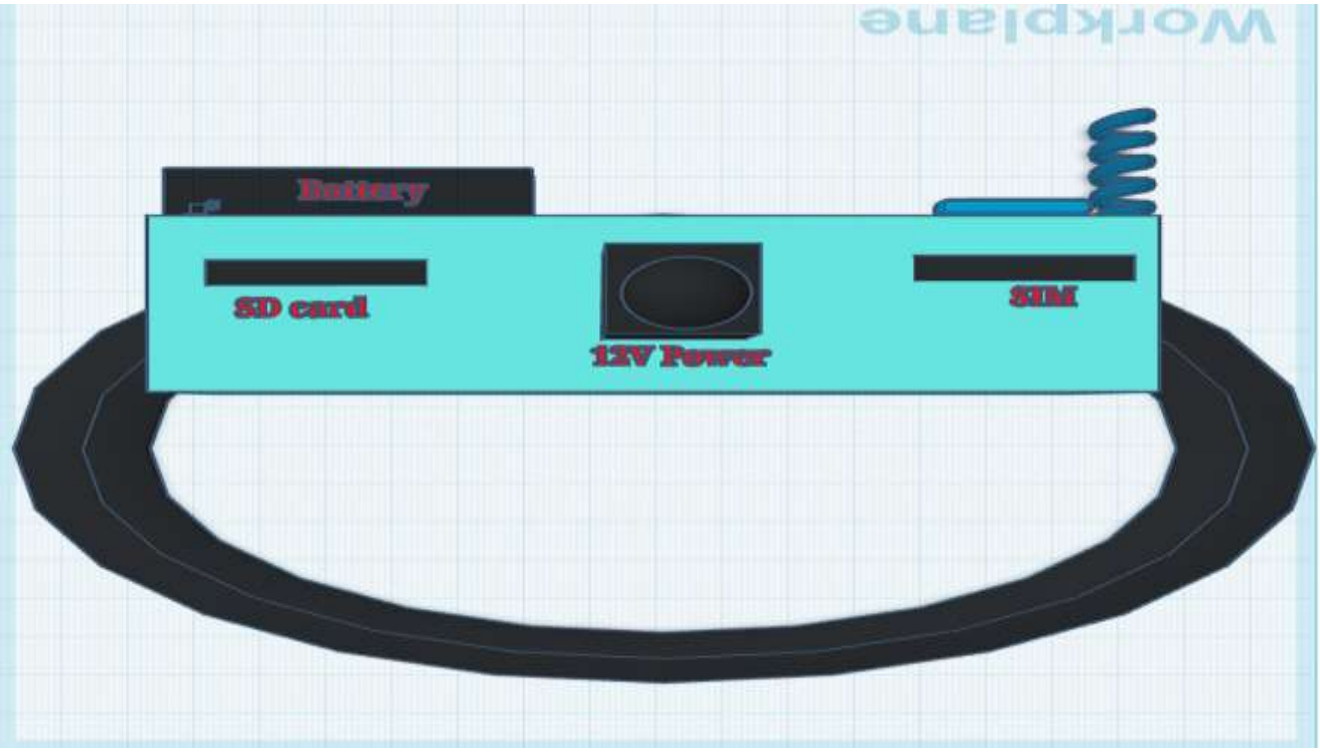
PROPOSED SOLUTION

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.

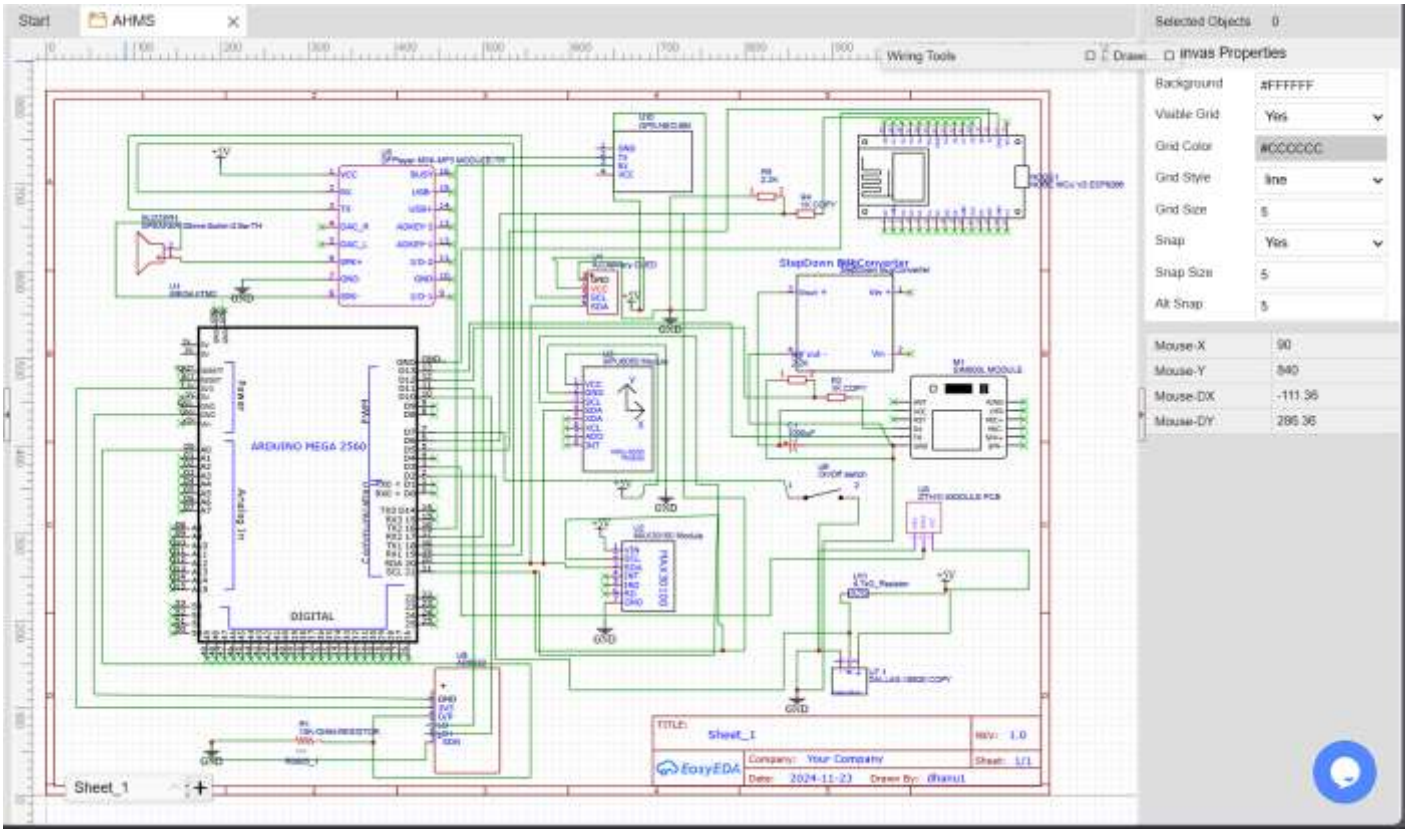
DETAILED DESIGN

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

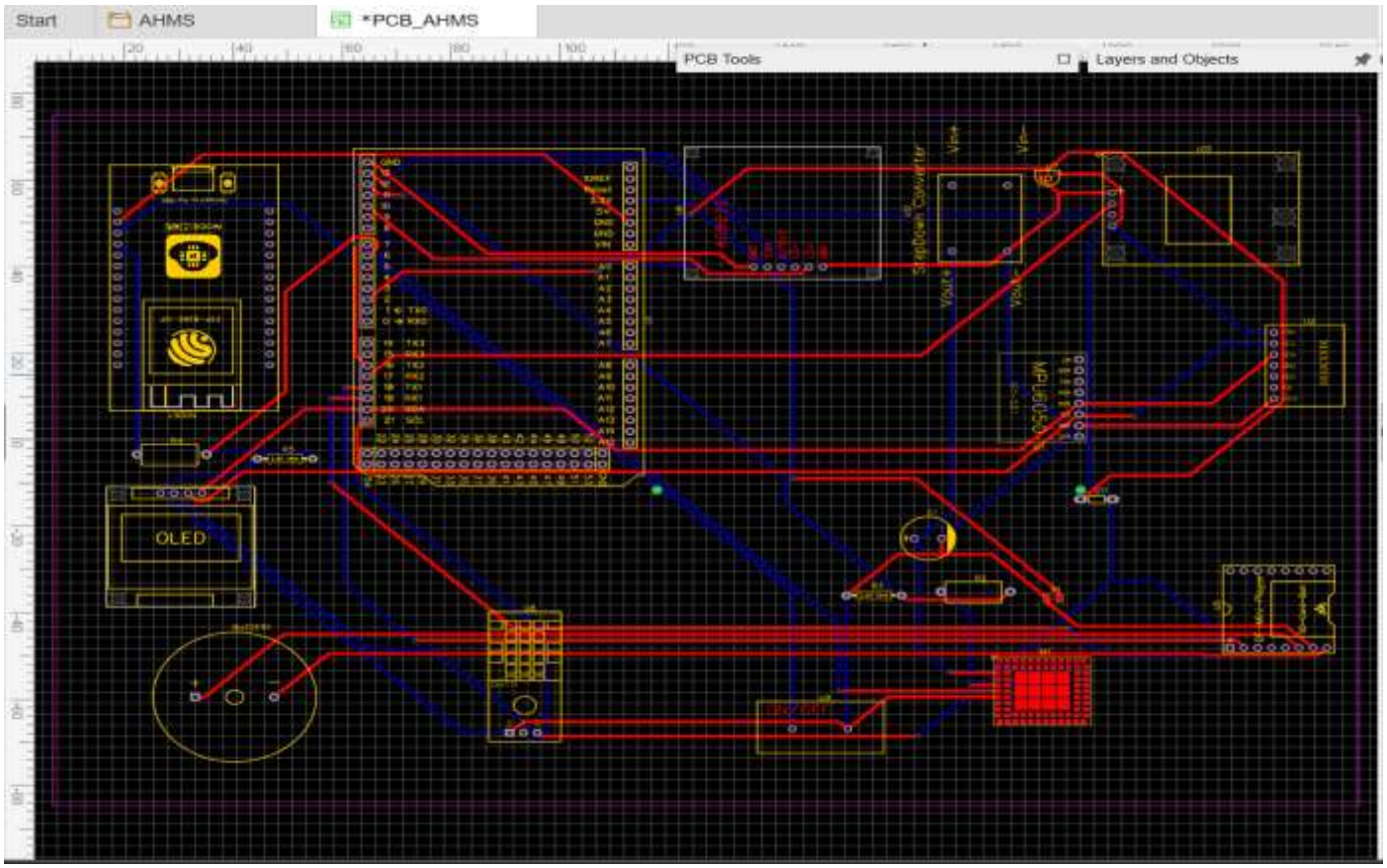
Product 3D Model



Product Schematic Diagram



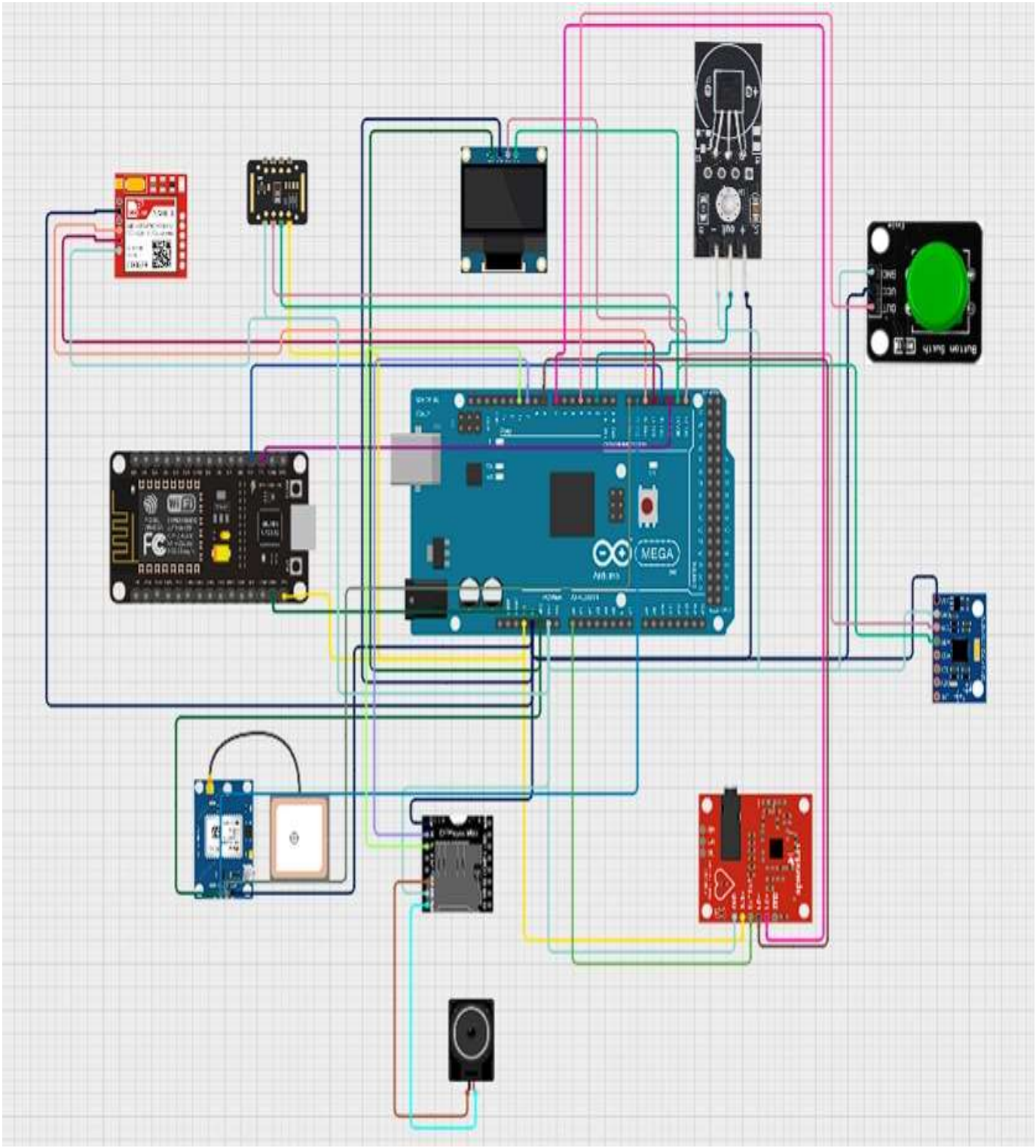
Product PCB Diagram



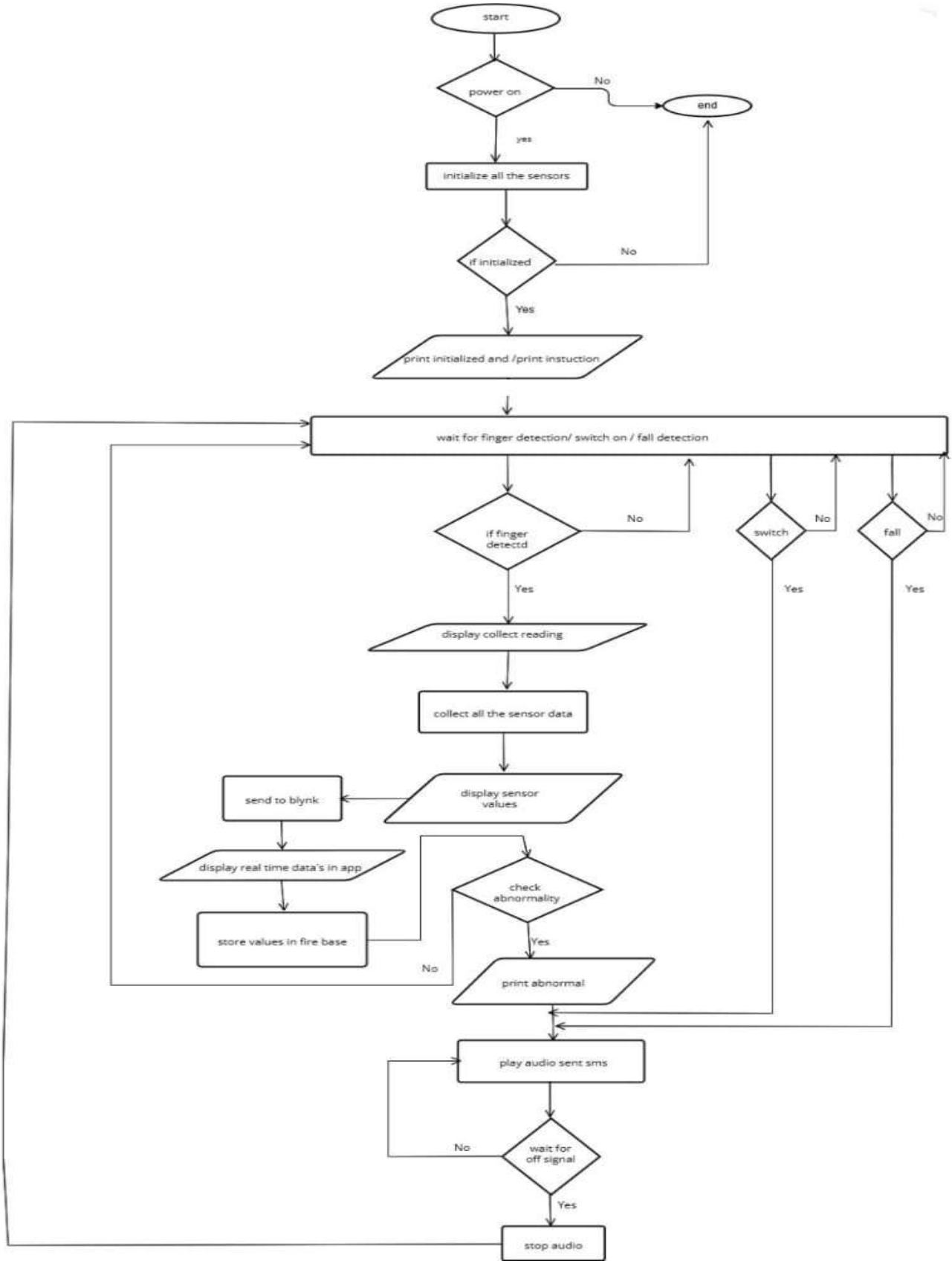
BOM (BILL OF AMOUNT)

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


start
power on
No
end
yes
initialize all the sensors
if initialized
No
Yes
print initialized and /print instuction
wait for finger detection/ switch on / fall detection
if finger detectd
No
switch
No
fall
No
Yes
Yes
Yes
display collect reading
collect all the sensor data
send to blynk
display sensor values
display real time data's in app
check abnormality
store values in fire base
Yes
No
print abnormal
play audio sent sms
No
wait for off signal
Yes
stop audio

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							